## KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

## COLLEGE OF HEALTH SCIENCES

SCHOOL OF MEDICAL SCIENCES

## DEPARTMENT OF COMMUNITY HEALTH



## PREDICTORS OF POSTPARTUM FAMILY PLANNING UPTAKE:

UNDERSTANDING PROVIDER AND POTENTIAL FAMILY PLANNING

USER BEHAVIOUR IN THE WA MUNICIPALITY OF THE UPPER WEST

**REGION, GHANA** 

RV

TIRAH HARUNA

MAY, 2014

# KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

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REGION, GHANA

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MASTER OF PUBLIC HEALTH

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MAY, 2014

## **DECLARATION**

I hereby declare that, this submission is my own field work towards the MPH and that, no previous submission of such for a degree has been done here or elsewhere. However, the work of others which served as reference has been duly acknowledged.

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## **DEDICATION**

This research is dedicated to my late mother (Madam Memuna Karibaga) for her enthusiasm in my education from infancy to first degree level as well as my wife Osman Fadila, my children: Haruna Langinbu Abdul-Rafui, Haruna Bisung Faeda and Haruna Anasigi Himayat for their support and sacrifice.



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Finally, I thank my dear wife and my research assistants for their support and blessing.

May God richly bless you all.



#### **DEFINITION OF TERMS**

**Postpartum:** First one year after delivery.

**Postpartum family planning:** Family planning use in the first year after delivery.

**Immediate postpartum:** starts from the first day of delivery to first six weeks after delivery.

**Extended postpartum:** starts from the first six weeks to the first one year after delivery.

**Contraception:** Substance (drugs or herbs) used to control fertility.

**Current contraceptive practice:** Is actual contraceptive use by mothers.

**Family Planning:** the most important proximate determinant of fertility adopted to control couple fertility, treat infertility, and other reproductive health infections.

**Husband-wife- communication:** is the discussion about reproductive decision making processes and family planning among couples.

Age at marriage: the perceived ideal age that boys and girls could marry.

Attitude: the value judgement towards family planning.

Purpose of contraception: Reasons why couples use a particular family planning method.

Unmet need of family planning: the gap between couple contraceptive use and their reproductive intensions.

**Service integration:** is the postnatal combination of family planning services with maternal and child health services in clinics.

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#### ABREVIATIONS/ACRONYMS

BDHS Brazilian Demographic and Health Survey

CCP County Community projects

CHW Community Health Worker

CPR Contraceptive Prevalence Rate

DFID Department for International Development

DHS Demographic and Health Survey

FP Family Planning

GDHS Ghana Demographic and Health Survey

GHS Ghana Health Service

GSS Ghana Statistical Service

HIV Human Immunodeficiency Syndrome

IUD Intra Uterine Device

LAC Latin American Countries

LAM Lactational Amenorrhea Method

MCH Maternal and Child Health

MOH Ministry of Health

NGO Non Governmental Organization

PPFP Postpartum family Planning

RHR Reproductive Health Report

TFR Total Fertility Rate

UNFP United Nations Population Fund

USAID United States Agency for International Development

WHO World Health Organization

#### **ABSTRACT**

#### **BACKGROUND**

Postpartum family planning uptake is known to have the potential to significantly reduce unintended pregnancies and maternal deaths especially worldwide with Ghana not an exception. The aim of this study was to assess the effects of socio-demographic characteristics of postpartum women on postpartum family planning (PPFP), factors that influence postpartum fertility preference, compare current FP practices among immediate and extended postpartum women and determine the effects service-related factors have on PPFP in the Wa municipality. The study was conducted from July to November, 2012.

## **METHODS**

The study involved a cross-sectional survey of 518 randomly sampled postpartum women aged 15 – 49 years and 10 service providers. Data were captured through person -to - person interviews with questionnaires.

#### RESULTS

Two hundred and ninety one postpartum women (67.7%) accepted FP method within the first year postpartum.

Postpartum acceptance of FP was significantly associated with parity (p=0.001) but not with level of education (p=0.72), religion (p=0.06), discussion number of children with partner (p=0.06) and

Postpartum women with higher education (AOR=0.46; 95%, CI=0.20-1.05), Muslims (AOR=0.35; 95%, CI=0.9-1.29), women who discussed number of children with partner (AOR=0.56; 95%, CI=0.28-1.10) were more likely to refuse contraception while postpartum women with 3-6 children (AOR=5.9; 95%, CI=1.30-27.55) were more likely to use contraception.

## CONCLUSION

The study highlights the importance of developing interventions on client-provider interactions postpartum to increase more effective contraceptive methods use. Early provider contact with postpartum women has shown a greater opportunity of increased contraception.

## RECOMMENDATION

Family planning service providers should focus specifically on immediate postpartum contraception by providing education on fertility return behaviours, benefits of breastfeeding in preventing unintended pregnancies within the first six months postpartum and initiation of contraception before the return of menses or resumption of sexual activity as conception could precede return of menses after delivery.

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#### **CHAPTER ONE: INTRODUCTION**

## 1.1 Background

Childbirth is a major event for a woman and her family but this event can be delayed, timed or avoided for preparations such as financial, social, psychological and health conditions. This is achieved through the means of family planning and birth control. Family planning therefore is a concept that refers to practices that help couples to avoid unwanted births, to regulate the intervals between pregnancies and to determine the number of children one can adequately care for in the family. Hence the role of family planning and or contraception is to help women and men reconcile their sexual lives and their desire for children (Bankole et al., 2006).

More than one-third of the 205 million pregnancies that occur worldwide annually are unintended. The majority of these unintended pregnancies occur in developing countries, where more than one third of 182 million pregnancies are unintended (Guttmacher Institute, 2008). Two-thirds of these unintended pregnancies occur among women who are not using a method of family planning. Sub-Saharan Africa has the greatest unmet need for family planning, with only 21% of married women aged 15-49 using modern family planning in 2003-4, compared with 56% for developing countries (Singh at al., 2009). Sub-Saharan Africa also has the highest adolescent birth rate by region at 121 per 1000 women age 15-19 years. Education, empowerment, delayed marriage and access to modern family planning are recommendations to reduce this (UNPFA, 2010). Practical barriers to pregnancy planning include service access, method choice, women's status, information, and provider bias (Campbell et al., 2006).

The WHO in 2012 estimated nearly 300, 000 maternal deaths worldwide, with 99% in developing countries, and a lifetime risk of maternal death of 1 in 39 in sub-Saharan Africa compared to 1 in 3800 in the developed world (WHO, 2012; Adjei et al, 2013). Improving women's choice to plan pregnancy, by increasing access to modern family planning methods, is a key intervention in the Millennium Development Goals to improve maternal and child health and reduce mortality ((DFID, 2010). Modern family planning methods are estimated to have the potential to save 150 million maternal deaths a year by reducing adolescent pregnancy, birth spacing and limiting family size (DFID, 2010).

Family planning uptake during the postpartum period has the potential to significantly reduce the number of unintended pregnancies. Ross and Winfrey (2001) have demonstrated a large unmet need among women in the extended postpartum period. Meeting these needs would substantially increase contraceptive prevalence as well as reduce maternal and child mortality (Cleland et al., 2006). Family planning use can benefit infant and maternal health through longer intervals between births. Programmes for pregnancy planning, and individual decisions to use family planning, are strongly influenced by social, cultural, and faith factors, summarized in an evidence review (DFID, 2010).

The postpartum period is a unique phase in the life of a woman and her newborn baby. It is a time of transition, adjustment and adaptation along with significant biological, social and psychological changes. This is also the period most women would often visit a

health facility for the care of their newly born babies and this can be a window of opportunity for health providers to introduce them to modern contraceptive methods. It is therefore necessary for family planning programs to recognize the importance of providing FP to postpartum women, since this is the period fertility returns and presents the highest unmet need for FP. Postpartum Family Planning therefore, is the initiation and use of FP during the first year after delivery (Cleland et al, 2006).

In Ghana, there has been consistent fall in contraceptive prevalence rate (CPR) since 2005 with a loss of 9.6% in CPR (33.6% in 2005 to 24% in 2011) even though total fertility rate (TFR) is consistently dropping (GSS, 2011). What has accounted for the decline in contraceptive uptake is not well understood and demands a careful inquiry into this debacle. Therefore, a study into postpartum FP uptake could provide understanding of key behavioural barriers to family planning uptake in the context of service providers and users. The quest of this study therefore is to assess the level of postpartum family planning uptake by first understanding key behavioural patterns to family planning uptake amongst postpartum women in the Upper West Region.

#### 1.2 Problem Statement

Generally, improvement in fertility over the years has been encouraging, although various socio-cultural practices and beliefs tend to support and sustain high rates of fertility. Ghana's Total Fertility Rate (TFR) has declined from 5.5 children per woman in 1993 to 4.0 in 2008 and is projected to reach 3.0 in 2020. Indicators for contraceptive prevalence do not paint the same picture over the years. The current family planning

acceptance rate has reduced from 33.6% in 2005 to 31.1% in 2009 Ghana Statistical Service/ Ghana Health Service (2009) with clients' preference for shorter term methods compared to other modern methods. Only 1 in 3 women (35%) currently married or in union reported using any method of contraception: 24% of all women use modern methods and 11% use traditional methods. The most popular modern methods are the injectables (9%) and the pill (8%) (GSS, 2011). In 1994, a National Population Policy key objective was to increase modern contraceptive prevalence rate to 28 percent by 2010 and to 50% by 2020. However, at the current rate of 24% contraceptive prevalence there still remains a wide gap to fulfill this dream. There is still even a worsening wide range of variation in contraceptive prevalence across the ten regions in Ghana with the lowest rates reported in the three regions of northern Ghana, suggesting a chronic unmet need for contraception. This unmet need is met with abortion, the second highest contributor to maternal death (15%) in Ghana (Kpakpah, 2011). The lack of access to and knowledge of contraception has denied many women from meeting this need. Thus, the unmet need of contraception could well be solved during the postpartum period. Hence service providers have the greatest opportunity to introduce women to contraception. To date, only limited studies have been done on postpartum family planning (PPFP) in Ghana and in the Upper West Region, there is no evidence- base for PPFP programming in Wa.

#### 1.3 Rationale

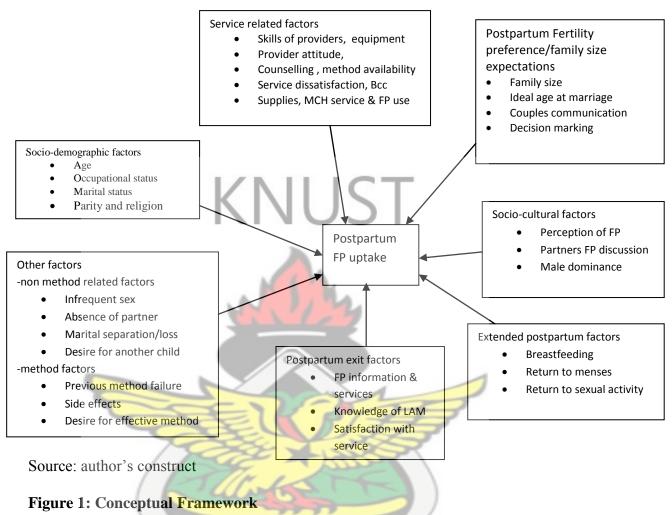
Over the last decade, the advocates of family planning services have justified FP on the basis of health and human rights benefits. The benefits that would accrue to a smaller

family size with fewer children range from good nutrition, health and education hence better standards of living (DFID, 2007). Although there is greater possibility for postpartum women getting pregnant unintendedly as a result of nonuse of contraceptive, little is known about the contraceptive behaviour of women after a pregnancy and delivery. There are high rates of repeated pregnancies among postpartum women particularly in low- income communities.

The study into postpartum family planning uptake in Wa municipality would provide an understanding to family planning uptake in the context of provider and clients' decision-making. It will identify challenges and make recommendations to enable policy makers to design and scale-up programmes for effective postpartum contraceptive use in Ghana. The outcome will also serve as a guide to the Ghana Health Service and other non-governmental organizations working in FP programmes to devise cost effective methods of introducing family planning to their clients. Additionally, it will stimulate further research interest in understanding postpartum potential FP user and provider behaviors.

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## 1.4 Conceptual Framework



## Conceptual framework

The postpartum period is a significant landmark in the life of a woman as it requires enormous energy to support the newborn and the recovery of the mother. Using modern family planning methods improves maternal and child health and saves lives (Ollerhead, 2011). However, prevalence of contraceptives among postpartum women has been influenced by socio-demographic characteristics, fertility return behaviours and service-related issues. Socio-demographic factors such as age, marital status, religion and

wealth status can influence a mother's choice of FP method. Having understanding of rationality of beliefs, attitude and service satisfaction in social and cultural context can leverage opportunities in decision making to improve FP outcomes. Postnatal service utilization can therefore provide early understanding of fertility return behaviours coupled with skills and constant contraceptive commodity supplies as well as possibility to switch methods and influence CPR positively.

## **Research Questions**

- i. What are the current family planning practices of postpartum women in the municipality?
- ii. What are the factors facilitating post-partum fertility preference/family size expectation?

## 1.6 Study objectives

## 1.6.1 General Objective

The main aim of the present study is to determine the factors that influence postpartum family planning uptake in the Wa municipality.

## 1.6.2 Specific Objectives

The specific objectives are:

i. To assess the effect of socio-demographic characteristics of women on postpartum FP uptake in Wa municipality

- ii. To assess factors that influence post-partum fertility preference/family size expectations among postpartum women in Wa municipality
- iii. To describe and compare the current FP potential practice among immediate and extended postpartum women in Wa Municipality
- iv. To assess the effects of service-related factors on postpartum FP uptake in Wa municipality

## 1.7 Profile of Study Area

The Wa Municipal is one of the eleven districts in the Upper West Region with Wa being the Regional Capital. It is located in the north western savannah part of the country. The municipality shares common boundaries with Funsi district to the east, Wechau District to the west, and Nadowli district to the North. The 2010 population census gave Wa Municipal a total population of 111,327 with a growth rate of 4% (Ghana Statistic Service). The Municipal now has a population of 113,442 for the year 2012 projected from the 2010 population census, using a growth rate of 1.9%. It has 132 communities with one paramouncy, 4 area councils and 1 urban council.

The municipality lays in the savannah high plains with a rather short but heavy rainy season that is observed with floods from May to September each year. The unpredicted nature of the rainfall impacts poorly on crop production. Temperatures are lowest in the early parts of the dry season (November-January and highest in the latter part of the dry season (March/April) with average monthly maximum of 38.5C and a daily highest temperature of 43C in March. This also explains the medical geography of the area which is characterized by water born diseases: cholera, typhoid fever, during the wet

season and outbreaks of meningitis, chicken pox, measles etc in the dry season as a result of the hammatan experienced there.

Commonly occurring trees are Shea-trees, Baobab, Cashew, Mangos and Dawadawa which are of commercial, nutritional and pharmaceutical value. Unemployment rate especially among the youth is unacceptably high and this accounts for a lot of out migration.

Wa Municipal is mainly male dominated society with high polygamous practices. The women are well oriented in economic and market activities. Only 15% of women in the Municipal had formal education even though there are diverse educational opportunities available to them and this impact negatively on their health seeking behaviour. The Municipality has four FM radio stations that broadcast in English and two local languages (Waali/Dagaare and Sissali); two serve mainly the university and polytechnic population.

The total staff strength of the Municipal Health Directorate is 207 and 32 health facilities with 132 communities. The distribution of the various types of facilities has been described in table 1.1

The municipality has thirty six (36) health facilities in total. One regional hospital, six health centres, four (4) private hospitals with seventeen (17) community base health planning services compounds and four (4) satellite clinics as shown in table 1.1

**Table 1.1: Health Facilities in Wa Municipality** 

TYPE	NUMBER
<b>Hospital (Government)</b>	1
Health centres	6
Private Hospitals/Clinics	4
Satellite clinics	4
CHPS Compounds	17

Source: Wa municipal health directorate (2012)

Family planning acceptor rate trends in the Municipality showed that Kambali submunicipal recorded the highest 87.2%, 74.4% and 87.6% from 2009 to 2011 respectively while the regional hospital recorded the lowest with 14.1%, 11.2%, and 7.9% respectively within the same period.

Table 1.2: Family planning acceptor rate trends by sub -municipality

	BAMAHU	BUSA	CHARIA	CHARINGU	KAMBALI	WA CENTRAL	REG. HOSPITAL	WA MUNICIPAL
2009	56.1	79.5	65.4	28.4	87.2	78.4	14.1	79.4
2010	42.5	41.4	61.3	33.1	74.4	62.4	11.2	63.8
2011	44.1	55.2	73.9	32	87.6	64.9	7.9	67.2

Source: Wa Municipal Health Directorate, 2012

With regards to postpartum family planning uptake Wa central recorded the highest in absolute figures consistently from 2008 to 2011 while Charingu health centre recorded the lowest within the same period.

Table 1.3 Postpartum family planning uptake trends by sub-municipality

						WA		_
	BAMAHU SUB	BUSA SUB	CHARIA SUB	CHARINGU SUB	KAMBALI SUB	CENTRAL SUB	REG. HOSPITAL	WA MUNICIPAL
2008	165	40	15	10	131	506	63	930
2009	187	14	88	8	230	371	94	992
2010	173	52	22	10	130	314	83	784
2011	148	39	19	21	178	364	157	928
2012	82	49	70	35	98	274	150	758

Source: Wa Municipal RCH data, 2012



#### **CHAPTER TWO: LITERATURE REVIEW**

## Introduction

The literature review is focused on the socio-demographic characteristics of postpartum women, their fertility preference/family size, immediate and extended postpartum women attitude towards FP uptake and the effects service factors had on family planning uptake.

The first days, weeks, and months after delivery present a period of substantial information and service needs for both mother and child, breastfeeding information and support, counselling and, most importantly, contraception. In areas of high HIV prevalence, contraceptives and antiretroviral therapy are especially critical elements of postpartum care. Yet, despite its strategic importance, few organizations have made it a priority to address women's reproductive health and fertility needs during the year following delivery. The situation is compounded by the scarcity of postpartum care in many countries, creating a major public health concern (Fort et. al., 2006).

# 2.1 Socio-demographic Characteristics of Postpartum Women and Family Planning Uptake

A survey conducted in Egypt showed that, the effects of family planning services quality on the use of IUD obtained from public sources is further sharpened when the analysis is adjusted for distance to the facility, type of facility, age, education level, number of living children, household wealth status, and residential area (RRR = 1.36, p < 0.01). Among the control variables, a woman's age and her number of living children

remain significantly associated with the use of IUD and other contraceptive methods. Having secondary or higher education is significantly positively associated with the use of IUD obtained from private facilities. The adjusted effect of household wealth status is monotonically positively associated with the use of IUD obtained from private sources. However, the use of IUD from public sources is positively associated with only the second, middle, and fourth quintiles of household wealth status. Rural residents remain negatively associated with the use of IUD from public sources and use of other contraceptive methods (Hong et al., 2006).

Age is an important factor which plays a major role in contraceptive use dynamics. From the Brazilian Demographic and Health Survey (BDHS), Leite and Cupta (2007) found that the likelihood of contraceptive abandonment was higher within age group of 30-40 years ( $\beta = 0.295$ ) and more than 34 years ( $\beta = 0.450$ ) but less within the age group of 25 - 29 years ( $\beta = 0.068$ ) compared with 15-24 years age group.

Dulli et al., (2011) found that, in Rwanda, age and marital status were significantly associated with contraceptive use, but not religion, work status or education.

Modern contraceptive use increases with women's education. Nineteen percent of married women with more than secondary or higher education use modern methods compared with 11% of women with no education. Use of modern methods also increases with household wealth. Twelve percent of women in the poorest households use a modern method of family planning compared with 21% of women in the wealthiest households (GSS/GHS/ICF Macro, 2009).

In a study to identify the reasons for the acceptance or rejection of contraceptive methods among postpartum women at the Hospital of Obstetrics and Gynecology in León, Mexico, a prospective cross-sectional study of 1025 postpartum women was undertaken. Reasons for acceptance or refusal of contraceptives were registered in a written survey. Twelve socio-demographic variables were included as predictors in a logistic regression analysis; the acceptance or refusal was the dependent variable, and statistical significance was set at 0.05. The results showed that, There were 513(50.0%) patients who accepted contraceptives and 512 (50.0%) who refused them. The main reasons for accepting contraceptives were definitive desire for no more children (17.0%) and satisfaction with previous contraceptive methods (21.5%). The main contraceptive methods chosen were intrauterine device (67.7%) and tubal sterilization (28.5%). Reasons for contraceptive refusal were husband's rejection (33.2%) and delaying contraceptive use until after the postpartum period (31.8%). In the logistic regression model, the variables previous deliveries (p < 0.001), number of Cesarean sections (p <0.001) and women's level of education (p < 0.02) were included as predictors of acceptance. The study concluded that: previous deliveries, previous Cesarean sections and women's level of education were significant in contraception acceptance. The rejection of contraceptives was mainly attributed to husbands (Romero-Gutiérrez, 2003). Another study involving married women's decision making power on modern contraceptive use in urban and rural southern Ethiopia showed that, current modern contraceptive use among married women in the urban setting was 293 (87.5%) and 243 (72.8%) in rural setting. Married women who reside in urban area are more likely to decide on the use of modern contraceptive method than the rural women. Having better

knowledge about modern contraceptive methods, gender equitable attitude, better involvement in decisions related to children, socio-cultural and family relations were identified factors for decision making power of women on the use of modern contraceptive methods in the urban setting. Whereas better knowledge, fear of partner's opposition or negligence, involvement in decisions about child and economic affairs were statistically significant factors for better decision making power of women on the use of modern contraceptive methods in the rural part (Eshetu et al, 2011)

In another study, Yavinsky, 2011, revealed that, both higher levels of education and urban residence were strongly associated with uptake of all categories of postpartum contraception. Number of living children was negatively associated with uptake of long-term methods only. Four or more antenatal visits and facility delivery both increased the risk of postpartum contraceptive uptake.

## 2.2 Factors Influencing Postpartum Fertility Preference /Family Size Expectation

Research shows that in Ghana the adolescent birth rate and total fertility rate (TFR) are respectively 60 per 1000 live births and 4.3 children per woman. The average is 3.3 children per woman in urban areas and 5.5 children per woman in rural areas. Regional variations are also observed with the highest TFR (6.2) in Northern region compared with the lowest TFR (3.2) in Greater Accra. The TFR decreases with educational level and by wealth index quintiles. The lower TFR is observed among women with secondary or higher education (3.1) and in the richest quintile (2.9), (GSS, 2011).

Throughout most of India, male heads of household strongly influence decisions around family size and contraceptive use within marriage. Literature suggests that couples who

discuss their desired number of children or the use of family planning (FP) are more likely to use a contraceptive method than those who do not. Additionally, research indicates that if a wife conceals her contraceptive use from her husband it is usually indicative of the absence of communication, lack of confidence or disagreement on the use of FP methods between spouses. If the husband does not approve, she is not likely to use any method (Loomba et al., 2011).

A study that seek to promote male participation in family planning in rural Nigeria, revealed a statistically significant association between spousal communication and current use of family planning methods by respondents' wives (p<0.05), (Odeyemi et

al., 2011).

According to the 2008 Ghana Demographic and Health Survey, ideal family size is higher among women in rural areas than urban areas (4.7 versus 3.9). Younger women, those with secondary or higher education, and those in the wealthiest households desire fewer children than their counterparts. Women in the Northern region want 6.6 children compared with women in the Greater Accra region who want 3.4. Spacing children at least 24 months apart reduces risk of infant death. In Ghana, the median birth interval is 40 months. However, about 1 in 7 (14%) infants in Ghana is born less than two years after a previous birth. Infants born less than two years after a previous birth have particularly high infant mortality rates (131 deaths per 1,000 live births compared with 58 for infants born four years after the previous birth).

Ross and winfry (2001) show that in 27 less developed countries, two-thirds of women within a year of their last delivery have an unmet need for contraception and that nearly 40 percent plan to use a method but have not done so. And that 10 percent of child deaths could be avoided if all new pregnancies were spaced at least two years after a birth (Cleland et al., 2006).

The desire to delay or stop childbearing is fast gaining attention from women. More than one-third of married Ghanaian women (35%) want no more children. Another 36% want to wait at least two years before their next birth. These women are potential users of family planning (unmet need). Unmet need for family planning is defined as the percentage of married women who want to space their next birth or stop childbearing entirely but are not using contraception. The 2008, GDHS reveals that, about 35% of married women have an unmet need for family planning, 22% for spacing and 13% for limiting.

According to Access-FP/Albania (2008), the 2002 reproductive health survey interviews with 5,697 women and 1,740 men in Albania provided the following information: approximately two-thirds (63%) of married women want no more children, 73% of women who have two children, and 86% of women who have three children, do not want any more children. The desire for no more children increases with parity from 2% of married women with no living children to 92% of women who have four or more children. The desire to delay the next birth for two years or longer is highest (45%) among women with one child. The number of living children a postpartum woman has

affects her motivation and intention to use a contraceptive method. Leite & Cupta (2007) made similar observation in Brazil. They found that the likelihood of contraceptive discontinuation was less among women with 1 ( $\beta$  = 0.343), 2 ( $\beta$  = 0.485) and more than 3 children ( $\beta$  = 0.645) compared with women who had no child.

A study on postpartum contraception utilization in Mumbai, India, revealed that, 44.5% (n=467) of postpartum women reported resuming sexual relations with their husbands. Among these women, the majority (65.3%; n=305) reported not currently using contraception. In multivariate analyses, women who did not discuss postpartum family planning with their husbands, had not used contraception previous to their recent birth, were more likely not to use postpartum contraception (adjusted odds ratios=1.47–1.77), Mody et al., 2013.

## 2.3 Contraceptive Practices among Immediate and Extended Postpartum Women

## 2.3.1 Immediate Postpartum and FP use

A baseline survey of postpartum and post-abortion women conducted by Access-FP, (2008) in Albania indicated that most women (94%) reported they wanted to discuss family planning options with their providers. The remaining 6% said they did not want to discuss family planning because they had enough related information about family planning. In spite of the demand for information for family planning, only four women reported receiving any family planning and none received a method. One was asked to come back at a later date.

From result of a combined analysis of diagnostic studies in three countries, (Vernon and Ricardo, 2008) findings demonstrate a clear relationship between the degree to which women report being informed, counseled about, and offered methods during their hospital stay and the uptake of methods before discharge from the hospitals.

In Honduras, a research team conducted quarterly surveys to collect data on five subgroups of women who delivered in hospitals: (1) the proportion who had been given information or counselling on contraception (2) those who were offered a method, (3) those who received a method, (4) those who wanted a method but had not received it (called "unmet demand"), and as a proxy for the quality of services, (5) those who had not received a desired method and had not been given an explanation for this. During a 15-month period, the proportion of women who received family planning information more than doubled, and the proportion who received a method tripled. The intervention as indicated above significantly decreased unmet demand for contraception and the proportion of women who were not told why they did not receive a method they wanted (Medina, et al, 2001).

Research in sub-Saharan Africa, Asia and the Near East, and Latin American countries showed that more than 80 (%) of women do not want a pregnancy in the two years following a delivery, including a substantial proportion of women who do not want more children. About half of these women would like to start using a contraceptive method during the postpartum period. Of these, more than half want to begin using a method immediately after delivery or at six weeks; the rest mention a time between six

weeks and one year, most often at six months or at what they perceive as the return of fertility (Medina, et al, 2001; Brambila, Figueroa, & Taracena 2001). Thus, programs can respond more fully to their clients' desires and needs by providing information about fertility return and contraceptives at different times during the extended postpartum period (USAID, 2008).

Programs that offer a full range of contraceptives to women at hospitals have greater uptake of contraceptives than programs that do not. In the Dominican Republic, where most hospitals only offer female sterilization, the proportion of women who receive a contraceptive method before discharge is 12%, compared to 25% and 44%, respectively, in Haiti and Nicaragua, where IUDs, pills, injectables, LAM, implants, and condoms are also offered (Vernon and Ricardo, 2008).

A Ministry of Health (MOH) hospital in Tunisia tested scheduling a single visit for mothers and children on the 40th day postpartum. Of 9,240 women who gave birth at the hospital, 83% attended the postpartum visit, an increase of 10% points over the previous year. Of the women who attended the postpartum visit, 56 percent accepted a family planning method (Access-FP, 2008).

An analysis of Demographic Health Survey (DHS) data from 30 countries showed that half of births take place outside of health care facilities (Fort, Kothari & Abderrahim 2006). Meanwhile, Yavinsky, (2011) showed that four or more antenatal visits and facility delivery both increased the risk of postpartum contraceptive uptake.

A study involving contraceptive choices of new family planning clients at the Komfo Anokye Teaching Hospital found that about 53% sought modern contraception within 12 months postpartum and the most chosen method was injectable contraceptives (Morhe & Ankobea, 2011).

### 2.4 Extended Postpartum and FP Use

## 2.4.1 Breastfeeding education and use of LAM

Research has clearly established the links between breastfeeding (including lactational amenorrhea method (LAM)), infant health, and contraception. Exclusive breastfeeding for up to six months has been shown to protect infants from HIV (Iliff et al., 2005). Properly practiced, lactational amenorrhea method has been shown to be 98% effective in preventing pregnancy (WHO/RHR/CCP 2007). Thus, many lives could be saved if programs met women's family planning needs during the postpartum period, especially if programs promote the use of lactational amenorrhea as a means to space births in the first six months, given that full breastfeeding is associated with lower infant mortality (León-Cava, et al, 2002).

A Frontiers study in Kazakhstan, in which women in intervention groups were counselled on LAM use, revealed no difference in LAM use between intervention and control hospitals at six months (Tazhibayev et al. 2004).

## 2.4.2 Return of Menses and family planning uptake

Breastfeeding delays the resumption of ovulation and the return of menses. For individual postpartum women, the resumption of menstruation is not predictable. For non-breastfeeding women, most experience menses return within four to six weeks. The

longer menses return is delayed, the more likely it is that ovulation will precede menses return (Kennedy & Trussell 2004).

Individual studies appear to draw linkages between menses return and initiation of contraceptive use (Ross and Winfry 2001). Becker & Ahmed (2001), found that family planning use is most likely in the month following menses return.

## 2.4.3 Return to sexual activity and family planning uptake

Reported periods of abstinence from sexual activity after a birth vary greatly. Qualitative research has indicated that among those practicing postpartum abstinence, irregular sexual activity may happen early, progressing to regular activity later (Desgrees-du-lou & Brou, 2005). There is some literature about the associations among breastfeeding, return to sexual activity and contraceptive use. In Peru and Indonesia up to the third month postpartum, breastfeeding women in Peru, but not in Indonesia, were less likely than non breastfeeding women to have resumed sexual intercourse (Becker & Ahmed, 2001).

Comparison on the use of modern family planning among women at 3.0–5.9 months postpartum and at 9.0–11.9 months postpartum to all currently married women for 17 countries, sorted from lowest use of family planning to greatest use showed that, in 15 of the 17 countries, women are more likely to be using modern family planning at the end of the postpartum period (9.0–11.9 months) than in the middle of the postpartum period (3.0–5.9 months). In most countries, the increase is quite large. In Bangladesh, India, Tanzania, Ghana and Malawi, the increase is more than 10 percentage points. In

the Democratic Republic of Congo, Ethiopia, Haiti, Guinea, Madagascar, Mali, Nigeria, Rwanda and Uganda, the increase is less than 5%. The use of modern family planning is low among postpartum women compared with the unmet need for family planning. In all countries except Nigeria and Guinea, the percentage of women who need family planning services at 9.0–11.9 months postpartum exceeds 80%. In more than half of the countries, the percentage of women who need family planning services exceeds 90%. In all countries, the percentage of women needing family planning services greatly exceeds the percentage that is actually using family planning services. In fact, only in Bangladesh does the use of modern family planning as a percentage of totals need exceed 50% (Kpakpah, 2011).

Yavinsky, (2011), study of Postpartum Family Planning Use in Uganda found that majority of subjects (3,487 or 70%) did not use any method between their most recent birth and the end of the calendar period. Most of the respondents who did use a method used a short-term method (82% of contraceptive users, 25% of all women included in the sample). Women's knowledge about their own fertility tends to be limited. Many women in sub-Saharan Africa, for example, cannot correctly identify the "at risk" period for getting pregnant postpartum (Mwangi et al., 2008).

Studies have shown that making contraceptive methods available in the postpartum period leads to higher contraceptive prevalence rates. A study in Peru compared a cohort of women who were offered counselling and temporary methods, including the intrauterine device (IUD), in one ward at a hospital in Peru with a cohort of women in a different ward who were discharged without being offered comparable services. Six

months after delivery, 82 percent of the women who were offered methods were using one, with 40 percent using the IUD. By comparison, 69 percent of women who had not been offered the methods were using one, with 27 percent using an IUD (Foreit et al, 1993).

The intention to use family planning is enormous in Ghana. Almost half of currently married non users (48%) intend to use family planning in the future. Injectables are the preferred method for future users (39%), (GSS/GHS/ICF Macro, 2009).

A study conducted among women with unmet need in Syria who said they were not intending to use contraception in the future, around 3% mentioned religious prohibition as the main reason. Twelve percent cited fatalistic beliefs, generally saying that conception is up to God; 13 percent cited their husband's disapproval; 9 percent said they did not like the existing methods; and 19 percent cited their fear of side effects as the main reason for not using contraception. And in Libya, less than 3 percent of women with unmet need who were not intending to use a method reported religious prohibition as the main reason. Only 4 percent of these women mentioned their husband's disapproval; 9 percent cited fear of side effects; and 19 percent gave a fatalistic reason UNFPA, (2012).

The integration of family planning with child immunization services is a promising approach to meet the contraceptive needs of postpartum women and, in turn, improve the health of mothers and their children. According to an analysis of the Demographics and Health Surveys (DHS) in 27 countries, two-thirds of women in the extended postpartum period want to delay or avoid future pregnancies but are not using a modern family planning method. At the same time, immunization coverage is high in many

developing countries, and the recommended child vaccination schedule allows for multiple contacts between providers and mothers in the year following birth. The provision of family planning information, referrals, or services during immunization visits can be an efficient way to reach women to promote the healthy timing and spacing of pregnancies (Rademacher et al., 2011).

Examining the issue of perceived susceptibility in greater detail, non-users were more likely than users to hold misperceptions regarding contraceptive use during the postpartum period. Non-users were almost three times more likely than users to believe that breastfeeding women did not need to use a contraceptive method (OR=2.92, 95% CI: (1.59, 5.37)) and four times more likely to believe that postpartum women needed to await the return of menses before initiating a method (OR=3.97, 95% CI:(2.64, 5.97)). Among non-users, the most common reason noted for not using a contraceptive method was awaiting return of menses (44.3%). Non-users were also significantly more likely than users to be unaware that a woman could get pregnant before her menses returned after having a baby (OR=1.94, 95% CI:(1.50, 2.51)), Dulli et al., 2011.

# 2.5 Effect of service related factors on postpartum family planning uptake

Exposure to family planning messages shows that, six in ten women aged 15–49 and 7 in 10 men age 15–49 have heard family planning messages on the radio. Exposure to family planning messages is particularly low in rural areas and among the poorest and less educated individuals. Women and men in the Greater Accra region are more likely to be exposed to all three media sources (radio, TV, and newspaper). Women exposure

to all three media sources generally increases with increasing education, (GSS/GHS/ICF Macro, 2009).

In another study by Frontiers, meeting the family planning needs of postpartum women USAID, (2008) found that, almost universally, a far greater proportion of women use services for antenatal care, immunization, and well-baby care than postnatal care services. In one project area in Guatemala, for example, 50% of pregnant women attended antenatal care and 60% of children attended immunization services, but only 15% of women attended postnatal care services (Jacobs, et al, 2002). Several factors contribute to the under utilization of postnatal care: Guidelines usually establish a fixed point for postnatal care visits at 40 days, for example and services provided to women weeks or months after that point are not registered as postnatal care visits.

Family planning clients should be informed about the side effects of the method used what to do if they experience side effects, and told about other methods that could be used. More than half of women received this information the last time they began using a new modern contraceptive method (GSS/GHS/ICF Macro, 2009).

According to (Hong et al, 2006), quality of care in family planning is a complex, multidimensional subject. For example, the Bruce framework of quality includes six quality indicators: (1) choice of methods, (2) information given to clients, (3) technical competence, (4) client-provider interpersonal relations, (5) mechanisms to ensure follow-up and (6) continuity, and the appropriate constellation of services. International Planned Parenthood Federation's framework of "Client's Rights and Provider's Needs" includes client's rights to information, access to services, informed choice, safe services, privacy and confidentiality, dignity, comfort, and expression of opinion, and continuation of care; and provider's needs of facilitative supervision and management, information, training and development, and supplies, equipment and infrastructure. Various indicators used to measure quality of care can be grouped into infrastructure and system readiness, provider's adherence to standards of practices, and client's perspectives and experiences. These dimensions of quality of care are interrelated, for example, provider's adherence to good practices is enhanced by training and supervision, and client's opinion about quality of services reflects provider practices.

#### 2.5.1 Maternal Health Services and Contraception

A study using data from six countries (Thailand, Egypt, Tunisia, Zimbabwe, Guatemala and Colombia) demonstrated the use of contraceptives and maternal and child health (MCH) services to be significantly associated, independent of intervening factors (Ahmed & Mosely 2002). In Guatemala, the intensity of MCH service use was positively associated with subsequent contraceptive use, after controlling for observed and unobserved individual, community and household factors (Seiber et al. 2005).

In a study of five countries (Bolivia, Guatemala, Indonesia, Morocco and Tanzania), using similar methodology, the results in three of the five countries suggested that the intensity of MCH service use is positively associated with subsequent contraceptive use after controlling for the same factors. The authors concluded that for those countries (Morocco, Guatemala and Indonesia), the intensity of MCH service use does have a causal impact on subsequent use after controlling for factors that predispose women to use health care services. All of these studies concluded that MCH service use has a

positive association with contraceptive use and two propose a causal relationship. It is noteworthy that the countries examined are limited to 10 countries, no doubt due to the availability of relevant data sets (Kpakpah, 2010).

Postpartum contraceptive programs are strategically important from a public health perspective, with significant benefits to women and their children. Integrating contraception can benefit health systems as well by increasing women's use of postpartum, well-baby, family planning, and other services. Salahuddin and others (2011) in their study titled Impact of Integrating Family Planning within a Community-Based Maternal and Neonatal Health Program in Rural Bangladesh demonstrated that counselling coverage by community health workers during pregnancy (99% vs. 99%; p>0.1) and within first week of delivery (86% vs. 89%; p>0.1) were similar in both intervention and comparison arms. CPR at three months (36% vs. 11%; p<0.01), six months (37% vs. 18%; p<0.01) and 12 months postpartum (42% vs. 27%; p<0.01) were significantly higher in the intervention arm with significant changes in the method mix over time. Reported pregnancy rate at 12 month postpartum was 5.3% in the intervention arm and 6.1% in comparison the arm. Home delivery rate was similar in both arms (89.5% in intervention vs. 91.3% in comparison arm).

Many survey-based and in-depth qualitative studies identify women's fears about perceived health risks and side effects associated with modern contraceptives as a major barrier to adoption or reason for discontinuation. Sedgh and others (2007) found that fear of side effects and health concerns were the most common obstacles to using contraception. These reasons were cited by 20–50% of married women with an unmet

need in 26 of the 36 countries with information on this question, and by about a quarter of never-married women with unmet need in seven of the 19 African countries studied. The demographic literature often makes little distinction between actual side effects and the perception of harmful impacts on health from practicing contraception. Qualitative studies from many other developing countries report women expressing concerns such as fear of permanent infertility from using oral contraceptives and injectables, and causing disease DFID (2010). However, the 2008, GDHS has found that, the most commonly cited reason for not intending to use contraception is fear of side effects, which was mentioned by 26 percent of this subgroup of women. Sixteen percent of nonusers said they do not intend to use in the future because they themselves are opposed to using family planning, and an additional 3 percent said that their husband or partner was opposed to family planning. Other reasons given for not intending to use include infecundity/subfecundity (10 percent), menopause/hysterectomy (7 percent), desire for more children and health concerns (8 percent each). Only small proportions of women cited lack of knowledge of methods, lack of access, or cost as the main reason they do not intend to use family planning.

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#### **CHAPTER THREE: METHODOLOGY**

### 3.1 Study Methods and Design

A cross–sectional design was used to assess the relationship between postpartum FP uptake and behavioural barriers to FP uptake in the context of service providers and contraceptors (from July, 2012 to October, 2012 in the Wa Municipality).

# 3.2 Data Collection Techniques and Tools

Two sets of different structured questionnaires were administered to family planning clients and providers of family planning. This was done using face-to-face interviews with eligible clients in the postpartum period and service providers in the selected health facilities within the municipality.

### 3.3 Study Population

The population for this study were all postpartum women aged 15- 49 years with children between 0-12 months attending post natal and child welfare clinics in the municipality. Staff providing FP services at the various health facilities was included

### 3.4 Study Variables

The variables were categorized into dependent and independent variables

# **3.4.1 Dependent Variables (Outcome Variable)**

Postpartum family planning uptake (percentage of women who are likely to use a contraceptive method within the first year after delivery during the survey) was considered the main dependent variable in the study.

#### 3.4.2 Independent Variables

The independent variables used in this study were; educational level, religion, socioeconomic status, attitude, types of contraceptive methods, safety of methods, side effect of methods, husband acceptance of FP, duration before return to sexual activity, number of children, providers communication strategies, barriers to assess, couples communication.

Table 3: Study variables

Variable	Oper <mark>ation</mark> al Defini <mark>tion</mark>	Indicator	Indicator Measurement	Type Of Variable
Age	Age at last birthday	Age in completed years	Questionnaire	Continuous
Level of education	Highest education level attained	None, Primary, JHS, Secondary and Tertiary	Questionnaire	Ordinal
Couples communication	Ability to share reproductive ideas	Yes No	Questionnaire	Binary
Occupational status	Job performed daily	Unemployed, professional, trading	Questionnaire	Nominal
Marital status	Expressed as single or married	Single, married, widowed, divorced, separated	Questionnaire	Nominal
Ideal family size	Desired number of children by couples	As reported by respondent	Questionnaire	Discrete
Religion	Faith of respondents	Muslim, Christian, traditionalist	Questionnaire	Nominal

Attitude of health care providers	Staff attitude towards client	Friendly Not friendly	Questionnaire	Binary
FP Service satisfaction	Feeling about FP service	Very good Poor Don't know	Questionnaire	Ordinal
Resumption of sexual activity	Having sexual activity regular or irregular	Yes No	Questionnaire,	Binary
Breastfeeding	strongly Currently breastfeeding child	Yes No	Questionnaire,	Binary
Preferred method	The choice of contraceptive method for desired intension	As reported by respondents	Questionnaire	Discrete
purpose of contraception	Reasons for women using a particular FP method		y Questionnaire	Discrete
Current use of contraception by method	3	Yes No	Questionnaire	Binary
User attitude	Behavior of post- partum women towards FP	4.4	f Questionnaire	Nominal
Accessibility to FP methods	Easily gets method if needed	Yes No	Questionnaire	Binary

# 3.5 Sample Size and Sampling Techniques

# 3.5.1 Sample Size

A sample size of 478 was estimated for the clients using a 0.05 level of significance or 95% confidence interval on a one-tail test, the sample size was calculated using the formula.

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

n=sample size

z = reliability coefficient of (1.96)

d = error allowance of 0.05

p = proportion of population estimated to be using contraceptives = 17% = 0.17

$$q = 1-p = 1-0.17 = 0.83$$

$$n = (1.96)^2 (0.17)(0.83)$$
 =216.8 =217 approx

$$(0.05)^2$$

A 10% non respondent effect was added ie; 10/100 x217 =21.7 = 22; 217 + 22= 239

Using the default design effect (deff) of 2.0 (to achieve the same reliability that a SRS would produce), the sample size is therefore

given as  $239 \times 2.0 = 478$ .

For the service providers, a total of 10 were estimated consisting of 2 from each health facility.

### **3.5.2 Sampling**

A multistage sampling technique was used in this study. Out of 7 facilities within the municipality, 4 were selected by simple random sampling while the Regional Hospital was purposively selected because it is the largest facility providing a wide range of services to the public. However, the number of clients selected from each facility was determined by probability proportionate to size (PPS). In all the five facilities, all postpartum women who met the inclusion criteria (one year postpartum women) were extracted from the facility records to create a sampling frame. The total number of women who met the criteria for Kambali health centre was 263, Market clinic 132, Bamahu Health Centre 218, Wa Central 537 and Regional hospital 232. Using the PPS strategy, the number selected from Kambali was 90, Market 46, Bamahu 75, Wa central 185 and Regional hospital 82. Systematic random sampling technique was employed for the selection of participants with a sampling interval of 3. The date for each woman

returning for postnatal care was known; respondents were systematically selected and interviewed. In order to reduce selection and information bias the number of postpartum women interviewed in a day was 6 and spread over 16 days. This procedure was repeated for all the facilities used for this study.

#### **3.6 Data Quality Assurance Measures**

# 3.6.1 Recruitment and Training of Data Collectors

Eight research assistants were trained to conduct interviews and collect data during the study. A three day training workshop was held to familiarize the trainees with the objectives and tools of the study.

#### 3.6.2 Pre-Testing

The research assistants practiced and pre-tested the data tools at the postnatal clinic of the Wechau Hospital in the Wa West district.

#### 3.6.3 Field Supervision

#### 3.6.4 Data Handling and Storage

The different health facilities selected in the study were coded. These facility codes were then used to create identification serial numbers for each respondent. Coding of questionnaires or data items on data collection form was done to ease reference to questions for systematic computer data entry into Excel (Microsoft office, 2008 version). The data were checked for completeness and corrections were made on regular

basis and back-up saved in external drive for safe keeping while the hard copies were kept under key and lock.

#### 3.7 Data Analysis

Stata version 11 for windows was used in the data analysis. Out of the 518 postpartum women interviewed, 430 discussed FP with service provider after delivery, 291 accepted a method, and 139 did not accept a method while 88 never discussed FP with service provider after delivery at all. These 88 respondents were not included in the inferential statistics analysis to assess the uptake of postpartum family planning. However, the analyses to assess the future use of postpartum FP, the 88 were included. The analysis was done at three levels; univariate, bivariate and multivariate levels of analysis. Univariate analysis was done to describe the dependent and independent variables separately. The bivariate analysis was done to determine association between the dependent and independent variables using Pearson's chi-square (x2)/fishers' exact test. The multivariate analysis was further carried out on variables that were significant at the bivariate analysis. Thus, a binary logistic regression analysis was done to determine the relationship between the dependent and independent variables. Crude odds ratios (OR) were determined and adjusted (AOR). A statistical significance level of p  $\leq 0.05$  was used as cut-off point.

#### 3.8 Ethical Considerations

Before the commencement of the study, ethical clearance was obtained from the Committee of Human Research Publications and Ethics (CHRPE) of the Kwame

Nkrumah University of Science and Technology and the Konfo Anokye Teaching Hospital. Permission for community entry was sought from the Wa Municipal Health Directorate and community heads. Respondent's informed consent was obtained, privacy and confidentiality assured.

#### 3.9 Limitations

1. The problem of recall bias could occur because of the retrospective and futuristic nature of the study. The secrecy associated with the use of modern family planning methods could also be a limitation as users may not be prepared to give out certain information.

# 3.10 Assumptions

The critical assumptions made during the study were; the sample size for the study was representative of the general population and respondents would understand the questions and give appropriate answers.

#### **CHAPTER FOUR: RESULTS**

#### Introduction

In this chapter presents the results of the study on the primary characteristics of the respondents, relationships between socio-demographic characteristics of postpartum women and contraceptive uptake, and the predictive variables on contraceptive uptake in postpartum in the future.

### 4.1 Socio-demographic characteristics of respondents

Majority (52.7%) of the women were within the age groups of 21-30 years. Majority (96.7%) of the women were married. About (34.7%) of the women had higher education (secondary and tertiary), about almost one third (33.8%) had basic education whilst few (31.5%) had no formal education. About (35.5%) of the women were into trading/small scale business. Islam was the predominant (64.3%).

Table 4.1: Socio-demographic characteristics of study sample

Variable	Frequency(	n=518) Perce	entage (%)
Age			
15-25	214	41.3	
26-35	273	52.7	
36-45	29	5.6	
46+	2	0.4	
Total	518		
Marital Status	K III IZ	~ T	
Married	501	96.7	
Single	8	1.5	
Divorce/separated	4		0.8
living with partner	5	1	
Total	518		
<b>Level of Education</b>	The state of		
None	163	31.4	
Basic	175	33.8	
Higher Education	180	34.8	
Total	518		
Occupation	5	1	
Clerical/salaried	86	16.6	
Farming/Fishing	18	3.5	
Trading/small scale business	184	35.6	
Artisan/casual worker	112	21.6	
Unemployed	118	22.7	
Total	518		
Religion	//		
Christian	182	<b>35</b> .1	
Muslim	333	64.3	
Traditionalist	3	0.6	
Source: field data 2012	5555	1	
- 3	SANE NO		

# **4.2 Fertility Preference of Respondents**

Majority (53.3%) of the women never discussed the number of children preferred with their partners. Ideal family size of 3-4 children (37.9%) was approved of the women. About 39.6% of the women had 3-6 children, 31.9% had 1 child whilst the minority (28.5%) had 2 children. Around 28.4% of the women desired a birth interval of 3years, (27.2%) desired 2years, whilst (26.2%) desired 1year and (15.2%) desired more than 4years.

**Table 4.2: Fertility preference of respondents** 

Variable  Discussion of No of children	Frequency(n=518)	Percentage (%)
Yes	210	40.3
No	275	53.3
Don't Remember	31	6
Total	516	
Ideal Family Size	1170	
1-2	94	28.1
3-4	127	37.9
5+	114	34
Total	335	
Parity	76	-
1-2	118	31.9
3-4	105	28.5
5-6	146	39.6
Total	369	
Birth interval		)
1yr	135	26.2
2yrs	140	2 <mark>7.2</mark>
3yrs	146	28.4
>4yrs	78	15.2
Don't know	19	4
Total	518	
Discussed FP with partner		
No	243	84
Yes	48	16
Total	291	

# 4.3 Effect of socio-demographic characteristics on postpartum contraceptive uptake

Contraceptive use was found not to have a statistically significant association with age (chi-square =3.89, p=0.14), education (chi-square=0.63, p=0.72), religion (chi-square =5.60, p=0.06) and occupation (chi-square= 7.88, p=0.09) and marital status (chi-square= 3.55, p=0.31).



Table 4. 3: Effect of socio-demographic characteristics on postpartum contraceptive uptake

	Contracepti	ve	
W 111	Users	Non Users	
Variables	n=291(%)	n=139(%)	x2(p-value)
Age× group			3.89(0.14)
15-25	100(34.5)	61(44.2)	
26-35	173(59.6)	69(50)	
36-45	16(5.5)	8(5.1)	
46+	2(0.4)	1(0.7)	
Marital Status×			3.55(0.31)
Married	282(96.9)	133(95.6)	
Single	3(1)	4(2.9)	
Divorce/separated	3(1)	0 (0.0)	
living with partner	3(1)	2(1.5)	
Level of Education			0.63(0.72)
None	91(31.3)	42(30.2)	
Basic	96(32.9)	42(30.2)	4
Higher Education	104(35.7)	55(39.6)	
Occupation	78	8 27	<b>7.8</b> 8(0.09)
Clerical/salaried worker	59(20.5)	18(12.9)	-
Farming/Fishing	12(4.2)	5(3.6)	
Trading/small scale business	109(37.5)	45(32.4)	\
Artisan/casual worker	61(20.9)	35(25.2)	)
Unemployed	50(16.9)	36(25.9)	/
Religion			5.60(0.06)
Christian	114(39.2)	40(28.7)	\$
Muslim	175(59.7)	99(71.2)	5/
Traditionalist	2(0.7)	0(0.0)	
* Indicates significance at P <		0	×Fisher's exact
0.05,	SANE T	**P<0.01	test

# 4.3.1 Effect of fertility preference /family size expectation on postpartum FP potential uptake

Postpartum contraceptive use status was found to have a statistically significant association with the number of children a postpartum woman had (parity), chi-square

=14.49, p =0.001 but not with birth interval (p=0.68), discuss FP with partner (p=0.09) and discussion number of children with partner.

Table 4. 4: Effect of fertility preference/family size expectation on postpartum potential FP uptake

	Contraceptive		
Variables	Users n=291(%)	Non-Users n=139(%)	<b>x</b> <sup>2</sup> (p-value)
Discussion of No of children			2.45(0.00)
with partner			3.45(0.06)
Yes	136(48.4)	50(38.5)	
No	145(51.6)	80(61.5)	
Total	281	130	
Parity			14.49(0.001)*
1	83(28.5)	63(45.4)	
2	83(28.5)	39(28)	1
3-6	125(43)	37(26.6)	
Total	291	139	
Birth interval		4	1.47(0.68)
1yr	74(25.96)	39(29.7)	
2yrs	74(25.96)	36(27.5)	
3yrs	89(31.23)	39(29.7)	
4yrs	48(16.84)	17(12.9)	
Total	285	131	
Discussion of FP with partner		201	4.61(0.09)
Yes	48(16%)	<b>60</b> (41)	
No	243(84%)	79(59)	
Total	291	139	

Source: field data, 2012

### 4.4: Correlates of socio- demographic characteristics

Postpartum women within the age group of 26-35, 36-45 years were less likely (AOR = 0.90; 95% CI: 0.44 - 1.84), (OR=0.72; 95% CI: 0.15- 3.30) to accept a method

compared with postpartum women aged  $\leq$ 25 years. The study also revealed that, no category of educational level had statistical significant effect on postpartum contraceptive uptake (use), testing at 5% in model, 1 and 2. The likelihood of postpartum women with high education to accept contraception was 54% less (AOR= 0.46; 95% CI: 0.20 – 1.05) compared with women with no education.

Occupation also had no association with postpartum contraceptive uptake (use) in both model 1, model 2. However, a clerical/salaried workers were two times more likely (AOR= 2.31; 95% CI: 0.82-6.53) to accept a method compared with unemployed.

Muslims were 65% less likely (AOR= 0.35; 95% CI: 0.09-1.29) to accept a method compared with Christians.

Furthermore, parity was found to be a strong predictor in both model 1 and 2. Postpartum women with 3-6 children were nearly six times more likely (AOR=5.9; 95% CI: 1.30-27.55) to accept a method compared with women with 1 child.

Finally, women who discussed the desired number of children with partners were 44% less likely (AOR= 0.56; 95% CI= 0.28-1.10) to accept a method compared with women who did not discuss.

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Table 4.5: Unadjusted and adjusted logistic regression of selected factor effects on postpartum FP uptake

	Uptake	
	Model1:OR (95%	Model2:AOR (95%
Predictive Variables	CI)	CI)
Age		
15-25 (ref)	1.00	1.00
26-35	1.52(1.00 - 2.33)	0.90(0.44 - 1.84)
36-45	1.29(0.52 - 3.18)	0.72(0.15 - 3.30)
46+	A-C-1-2-1	
Marital Status		
Married (ref)	1.00	1.00
Single	0.35(0.07 - 1.60)	1.12(0.09 - 13.9)
living with partner	0.70(0.11 - 4.28)	0.46(0.04 - 4.42)
Level of Education	11/2	
None (ref)	1.00	1.00
Basic	1.05(0.63 - 1.76)	0.84(0.35 - 1.99)
Higher Education	0.87(0.53 - 1.42)	0.46(0.20 - 1.05)
Occupation	A L	
Unemployed (ref)	1.00	1.00
Clerical/salaried worker	2.36(1.19 - 4.65)	2.31(0.82 - 6.53)
Farming/Fishing	1.72(0.55 - 5.33)	2.08(0.37 - 11.6)
Trading/small scale business	1.74(1.00 - 3.02)	2.05(0.84 - 4.99)
Artisan/casual worker	1.25(0.69 - 2.27)	1.20(.51 - 2.78)
Religion	7777	
Christian (ref)	1.00	1.00
Muslim	0.62(0.40 - 0.95)	0.35(0.09 -1.29)
Parity		3
1 2	1.00	1.00
2	1.61(0.97 - 2.66)	2.56(0.67 - 9.74)
3-6	2.56(1.56 - 4.19)*	5.9(1.30 – 27.55)*
Discussed we of the 'd		
Discussed no of chn with partner		
No	1.00	1.00
Yes	0.66(0.43 - 1.01)	0.56(0.28 - 1.10)
105	0.00(0.43 - 1.01)	(Source: Field data
* Indicates significance at P < 0.05		2012)

# **4.5:** Current Postpartum Women Contraceptive Practice

4.5.1: Postpartum women knowledge on breastfeeding and lactational amenorrhea method (LAM)

Majority (99.6%) of the postpartum women interviewed indicated that they were breastfeeding or intended to breastfeed their babies exclusively. Most (68.8%) of the postpartum women discussed the benefits of lactational amenorrhea method (LAM) with their service provider during their stay in the hospital immediately after delivery. Of those who discussed lactational amenorrhea method (LAM) with service provider, only 9.3% of the respondents were using LAM but none could mention the requirement for lactational amenorrhea method (LAM) use.

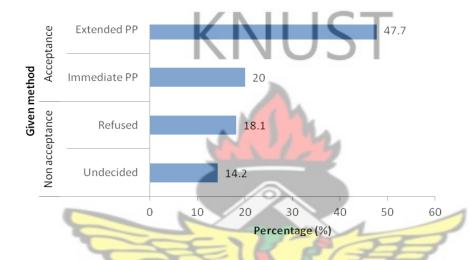
Table 4.6 Postpartum women knowledge on LAM

7000	Frequency	Percentage
Variable	(n=518)	(%)
Breastfeeding	JANTE	
yes	516	99.6
no	2	0.4
Discussed LAM with provider		T S
yes	355	68.8
no	163	31.2
Variable	E BA	
Using LAM (n=355)	CANE NO	
yes	33	9.3
no	322	90.7
Variable		

Source: 2012 field data

# 4.5.2: postpartum women who discussed and accepted or refused a method of FP after delivery

Nearly fourty- eight percent (47.7%) accepted a contraceptive method in the extended postpartum period, 20% percent accepted FP method within the first six weeks (immediate postpartum) while 18% refused and 14% were undecided.



(Source: field data, 2012)

Figure 4.1: Postpartum women who discussed and accepted or refused FP method immediately after delivery

# 4.5.3 Return to Fertility and FP use

About 40% returned to their menses 4-6 months after delivery and 76.9% of them initiated contraception. Eight percent returned to menses 10-12 months after delivery and 70% of them accepted a method.



Figure 4.2: Postpartum women return to fertility and contraceptive use

### 4.5.4: Return to sexual activity and FP use

About 38% who accepted a method had returned to sexual activity while majority (62%) accepted a method but had not returned to sexual activity. However, 30.8% who did not accept a method but had resumed sexual activity.

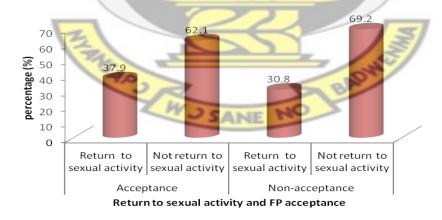


Figure 4.3 Pospartum women return to sexual activity and FP use

# 4.5.5 Time postpartum women return to sexual activity and FP use

About 38.8% who returned to sexual activity by 4-6months were also using FP method while 8% returned to sexual activity at the same period without a method. Between 0-3months, 26.1% returned to sexual activity while using a contraceptive method, 3% returned without a method. 12% returned to sexual activity by7-9 months while using FP method, 6% returned to sexual activity without a method.

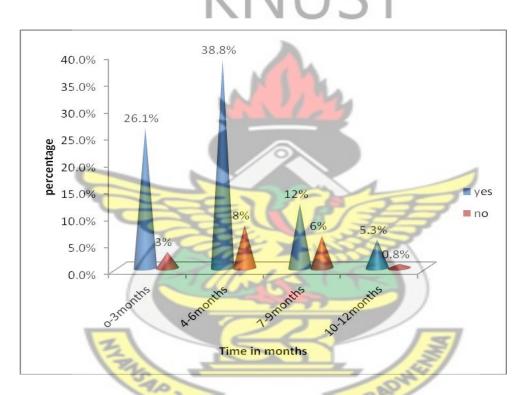


Figure 4.4 Postpartum women return to sexual activity period versus FP use

# 4.5.6: Preference of Contraceptive Methods among users

Majority (98.3%) of these contraceptives used were modern methods while 1.7% used traditional methods. Among those using modern methods, majority of them (71%) were using injectable followed by the pills (20.9%), implants (2.6%), female condom (2.1%) and IUD (1.7%).

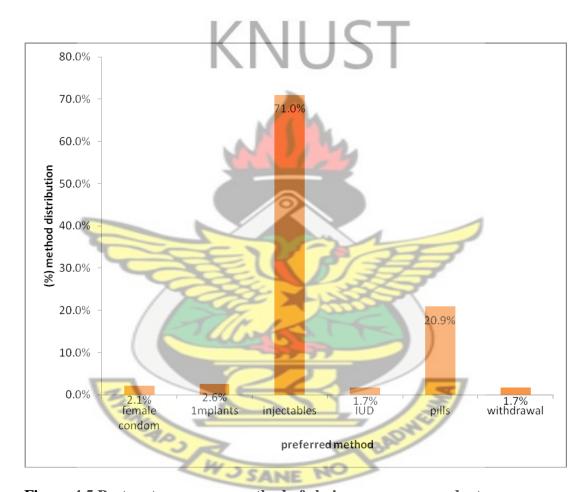


Figure 4.5 Postpartum women method of choice among respondents

# 4.5.7 Reasons for postpartum FP use

The most cited reason for use of contraception was do not want any more children (74%), followed by to space child birth (68%). High cost of child care was the least.

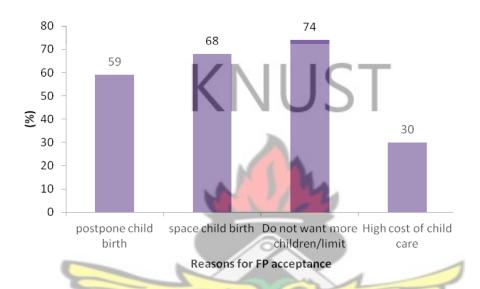


Figure 4.6 Reasons for family planning use

(Source: field data, 2012)

# 4.5.8: Intention to use FP in future among postpartum women who did not discuss

# FP with provider after delivery

Majority of women (71%) indicated their intention to rely on contraception in future while 23.9% would not use contraception in future.

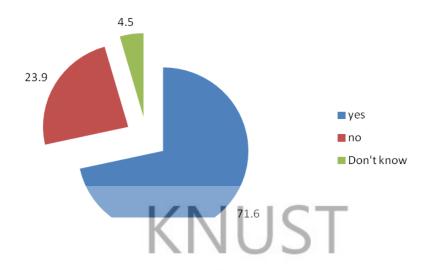


Figure 4.7 Future use of FP among postpartum women who did not discuss FP with provider after delivery

# 4.5.9: Intention to use FP in future among postpartum FP non- acceptors

Those who did not accept FP after delivery, (54%) of them indicated that they will not rely on FP in future while (46%) declared their intension for future FP use. .

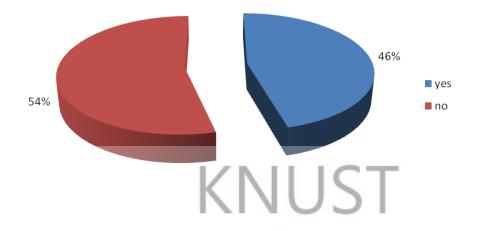


Figure 4.8 Intension to use FP in future among non-acceptors

# 4.5.10: Reasons associated with postpartum contraceptive non acceptance

The most commonly cited reasons for contraceptive non-acceptance were fear of side effects (38.8%), health concerns (17%) and religious prohibition (17%). Among the least cited reasons were cost too much (2.7%), knows no source (1.7%), lack of access (1.8%), and want no more children (1.8%).

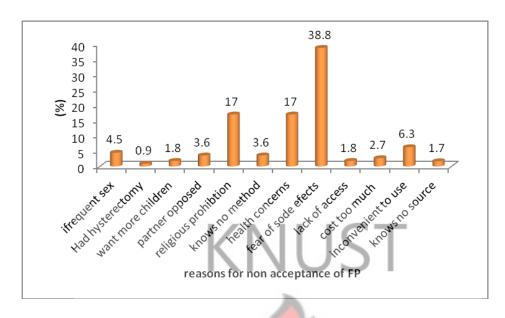


Figure 4.9: Reasons for family planning non acceptance

# 4.6: Quality of postpartum FP services

Majority (90.1%) of the women indicated that attitude of their service provider was friendly while a few (9.9%) said providers were not friendly. Majority (82%) of the respondents said FP services were satisfactory while 18% thought otherwise. Most (60.4%) of the women reported provision of information FP methods was very good. With respect to the provision of information on side effects, 52.6% of the women said it was adequate.

Table 4.7: Service-related factors and postpartum FP acceptance

Variable	Frequency(518)	Percentage (100%)
Attitude of service provider	rioquono y (c 10)	
Friendly	453	90.1
Not Friendly	50	9.9
Total  General satisfaction of services	503 FP	
Satisfied		82
Not satisfied	90	18
Total  Information on effective use of	500	
Very good	303	60.4
Fair	171	34.1
Poor	28	5.5
Total Information on side effects	502	- Comments
Very good	264	52.6
Fair	178	35.5
Poor	60	11.9
Total (Source: field data, 2012)	502	20

Contraceptive potential use status was found to have no statistically significant association with attitude of service provider (p=0.79), general satisfaction of FP (p=0.19) as well as information provision on effective use of a method (p=0.399) and information provision on side effects (p=0.671).

Table 4.8: Effects of service- related factors on postpartum contraception acceptance

Predictive variables	Contrac	eeptive use
Tredictive variables	n=291(percent	)
	<u> </u>	x2(p-value)
<b>Attitude of service provider</b> Friendly	260(89.3)	0.07(0.79)
Not Friendly	31(10.7)	
General satisfaction of FP		1.73(0.19)
Satisfied	243(83.5)	
Not satisfied	48(16.5)	
Inform. on effective use of method	112	1.84(0.399)
Very good	182(63.8)	
Fair	89(29.4)	
Poor	20(6.8)	
Information on side effect		<b>0.80(0.671)</b>
Very good	157(55.1)	
Fair	101(33.6)	5
Poor	33(11.3)	7
** Indicates significance at P < 0.05	1110	Source: Field data 2012

Respondents were equally split on the issue of contraceptives being potentially hazardous to one's health, 38.3% and 38% agreed and disagreed respectively.

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# 4.7.1: Perception of contraceptives use on health of women among respondents

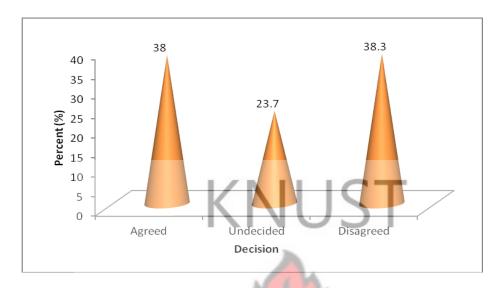


Figure 4.9: Perceptions of contraceptive use on health

(Source: field data 2012)

# 4.6.1: Source of FP information for Postpartum women

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Thirty-nine percent (39) of the women received information on FP at health facilities, 27.5% through the media (radio, television and newspappers) and 17.5% through community durbars. Others also received information through friends and NGOs.

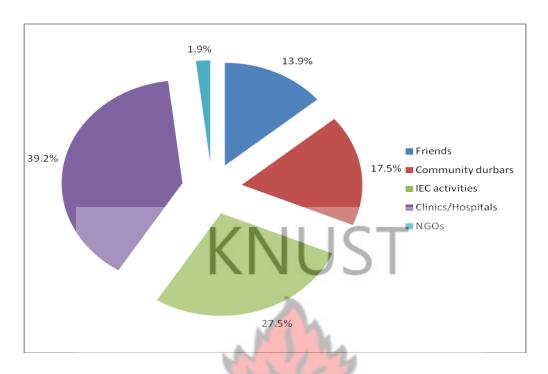


Figure 4.10 Source of information of FP among postpartum women

# 4.6.2: Ratings of provider behaviour by respondents

Nearly sixty three percent (62.9%) of respondents rated the services and attitude of providers good, 24.5% rated very good while 3.3% rated them poor. On provision of privacy, 60.1% indicated it was good while 3.4% stated poor. Majority of the respondent (58.5%) indicated that confidentiality of client information was good while 3% rated poor. Availability of service provider showed majority (57.6%) rated this to be good a few (2.4%) said this was poor. Counseling was rated good by many respondents and poor by13% of the respondents.

Table 4.9 Ratings of provider services and attitude by respondents

	Rating of some aspects of provider behaviour				
	Very good	Good	Fair	Poor	
	n (%)	n (%)	n(%)	n(%)	
Reception	99 (24.5)	268 (62.9)	42 (9.3)	14 (3.3)	
Privacy	112 (27.6)	260 (60.1)	38 (8.9)	12 (3.4)	
Confidentiality	109 (27)	252 (58.5)	50 (11.5)	11 (3)	
Counseling Total	106 (26.4) 426	243 (57.2) 1023	56 (13) 186	13 (3.4) 50	

# 4.7.4: Integrating family planning with maternal and child health services

Four-in-five women agreed with the concept of integrating family planning services with maternal and child health services.

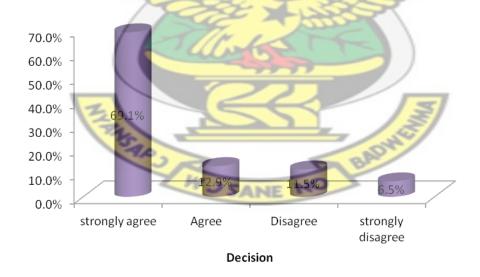


Figure 4.11: Integrating family planning with MCH service

### 4.6.3: Family planning services providers offer at health facilities

A total of ten family planning providers (all nurses), two per health facility were interviewed on provision and quality of service. Providers indicated that, discussing family planning with postpartum mothers soon after delivery as part of the routine practice in all health facilities and the practice improves acceptance. Family planning services commodities provided were condoms, injectable, implants and pills. The use of lactational amenorrhea method (LAM) as a modern family planning has not yet received the needed attention as a routine service. Majority of the providers indicated that LAM was not part of their routine family planning campaign to postpartum women. On adequate services to clients, 6 out of 10 said it was good while 4 said it poor. It was identified that there were gaps in services including frequent stock out of commodities and limited choices for clients.

The interview revealed that, postpartum women are usually advised and counseled on adoption of a contraceptive method before their return to sexual activity. Providers claimed they often counseled clients on issues such as fear of side effects, amenorrhea, and interference with sexual intercourse. Providers interviewed said some clients would not use FP products because of some side effects which interfere with religious practices such as prolonged menstrual flow would hinder Muslim women from offering their daily prayers.

When providers were asked to rate what resources and skills they will need in order to overcome barriers and challenges in offering services, facilitative supervision came out as the most important factor, while many also indicated that in- service training and career development were required. However, supply of commodities and equipment for

FP services and infrastructure were some of the challenges they needed to overcome in meeting the needs of clients.

Finally, as part of effort to improve family planning service quality and utilization, providers are of the view that, involving Non - Governmental Organizations, religious groups, improved client-provider interaction, couples appropriate communication, male involvement and provision of safer, side effect free contraceptive methods were prominent.



#### **CHAPTER FIVE: DISCUSSION**

### Introduction

This chapter discusses the key findings of the results with reference to the key variables and study objectives. This study sought to investigate the prediction factors that affect postpartum contraceptive potential uptake in Wa Municipality. The uptake of contraception is influenced by many factors including socio-demographic, fertility issues and FP service related factors and these would equally affect the acceptance and usage of FP products among postpartum women.

## 5.1 Effects of Socio-demographic Characteristics on Postpartum Family Planning Uptake

The results of this study suggest no association between postpartum family planning uptake and socio-demographic characteristics of women. The age of postpartum women did not suggest any association with postpartum contraception uptake. This is inconsistent with several studies such as Hong et al. (2006) who found that woman's age and her number of living children were main keys in accepting a long term method like IUD and Dulli et al (2011) that age was strongly associated with contraceptive use while Leite and Cupta (2011) reported that contraceptive abandonment was higher within the age group of 30-40 years compared with 20 -29 years age group. This difference observed in our study could be due to differences in cultural and religious orientations.

In this study, marital status was not associated with postpartum contraceptive uptake. This may be so because majority of the study participants were married. However, Dulli et al (2011) found that marital status was significantly associated with contraceptive use. In our study, higher education correlates negatively with postpartum contraception use in the multivariate analyses. The adjusted odds of postpartum women with higher education (AOR = 0.46) accepting contraceptive was 54% less likely compared with those without formal education. It means that the likelihood of postpartum women not accepting FP method increases with increasing education. Educated women might be misinformed about fear of side effects and health concerns and therefore would not accept contraception. These findings were inconsistent with the (GSS/GHS/ICF Macro, 2009) as educated women were more likely to accept a contraceptive with higher education. Romero-Gutiérrez (2003) had shown that women's level of education was significant in contraception acceptance while Yavinsky, (2011) demonstrated that higher level of education was strongly associated with uptake of all categories of postpartum contraception.

The woman occupational status in this study showed a lack of association with postpartum contraceptive uptake. Consistent with Dulli et al., (2011) findings that contraceptive use was not associated with work status. However, findings of this study are inconsistent with the (GSS/GHS/ICF Macro, 2009) findings which show that use of modern contraceptive methods increases with household wealth.

Religious affiliation was not associated with postpartum woman contraceptive use. Muslim women were less likely (AOR = 0.35) to accept a method as compared with Christians. Majority of the respondents (64.3%) were Muslims and the use of a contraceptive method is entirely not the decision of a Muslim woman alone. The

husband approval is very paramount. The Islamic doctrine seems to support as many children as one could possibly have in her life, a contradiction to the essence of contraception. Also, some side effects interfere with religious practices such as prolonged menstrual flow which hinders Muslim women from offering their daily prayers. This is congruent with Dulli et al. (2011) that religion was not significantly associated with contraceptive use.

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### 5.2 Factors Influencing Postpartum Fertility Preference

It is expected that couples communication about number of children (fertility desire) would leverage opportunities for postpartum FP uptake. In this study, a lack of association was observed between couples' discussion on the number of children and postpartum contraceptive use at both bivariate and multivariate levels of analysis. From the multivariate analyses the lack of association was inversely related in both model1 and 2. The adjusted odds of a postpartum woman (AOR=0.56) who discussed number of children with partner was less likely to accept contraception. Preference for larger families is still a phenomenon in the study area. The proportion of postpartum women with 3-6 children (37.6%) was higher than those with two or one child. In other words women were more likely not to use a method if their fertility desire was not met. However, Loomba et al. (2011) found that couples who discuss their desired number of children were more likely to use a contraceptive method compared with those who do not. Kidane et al, (2011) also, observed that, involvement in decisions about child was a statistically significant factor for better decision making power of women on the use of modern contraceptive methods.

The study revealed an association between parity and postpartum contraceptive uptake. Women with 3-6 children were more likely to accept postpartum family planning (AOR=5.9; 95% CI: 1.30-27.55; p=0.001) compared with those with 1 child. The likelihood of a woman to accept a method is directly related to the number of children she had. This means as parity increases, the odds of acceptance of contraception as well as desire for no more children increases. A comparison between couples' discussion number of children and parity with FP uptake in this study revealed that, while discussing number of children (fertility desire) was inversely related with FP uptake, parity was directly related with FP uptake. Postpartum women begin to accept contraception when they have achieved a family size of 3 to 6 children at which time they would want to limit their children and provide better care for them. Access-FP/Albania, (2008) made a similar observation that women who have three children, do not want any more children. The desire for no more children increases with parity from 2% of married women with no living children to 92% of women who have four or more children. The 2011 Ghana MICS found a similar result which indicates that total fertility rate per woman was 4.3 children with 3.3 in urban areas and 5.5 in rural areas.

Birth interval is a proxy for measuring how well a woman space her children. The current survey revealed no association between birth interval and postpartum contraceptive uptake. However, the study showed that more than half (57%) approved at least 2 years birth interval. However, about 1 in 7 (14%) infants in Ghana is born less than two years after a previous

birth have particularly high infant mortality rates (131 deaths per 1,000 live births compared with 58 for infants born four years after the previous birth (GSS, 2008).

Similarly, there was no association between couples FP communication and uptake of contraceptives methods. Inconsistent with Mody et al., 2013, findings that women, who did not discuss postpartum family planning with their husbands, had not used contraception previous to their recent birth, were more likely not to use postpartum contraception. This is because women are not involved in decision making in the family coupled with the low literacy rate in the study area the men would want to remain dominant in all aspect of societal issues (Wa Municipal assembly, unpublished). Contrarily to the findings, Odeyemi et al, (2011) revealed an association between spousal communication and current use of family planning methods by respondents' wives (p<0.05).

# 5.3 Comparison of Current FP Potential practices among Immediate and Extended postpartum women

The study has demonstrated a poor understanding of lactational amenorrhea method (LAM) among immediate postpartum women. Majority (99.6%) of the postpartum women interviewed indicated that they were breastfeeding or intended to breastfeed their babies. However, only 9.3% claim to be using LAM but none could mention the criteria for lactational amenorrhea method (LAM) use. The lack of effective LAM use among respondents may indicate that it was not a routine massage given to the mothers during contacts with provider and therefore prevents them from relying on it for the first six months before transition to a modern method. Properly practiced LAM has been

shown to be 98% effective in preventing pregnancy in the first six months postpartum (WHO/RHR/CCP, 2007). Thus, many lives could be saved if programs met women's family planning needs during the postpartum period, especially if programs promote the use of lactational amenorrhea as a means to space births in the first six months, given that full breastfeeding is associated with lower infant mortality (León-Cava et. al., 2002).

Family planning information provision or discussion with client immediately after delivery while staying at the hospital is an important predictor of increased potential user uptake among postpartum women. This current study revealed that of the 83% postpartum women who discussed FP after delivery, 67.7% accepted a method in the first year postpartum. Out of this, 20% accepted a method within immediate postpartum while 47.7% accepted a method in the extended postpartum period. The immediate postpartum FP acceptance may be attributed to fresh labour pains encountered during delivery and women would opt for contraception to avoid any immediate conception. Effective counseling could as well account for this result. Similar observations were made by (Vernon and Ricardo, 2008) which demonstrate a clear relationship between the degree to which women report being informed, counseled about, and offered methods during their hospital stay and the uptake of methods before discharge from the hospitals. The findings are however inconsistent with Access-FP (2008) that most women (94%) reported that they wanted to discuss family planning options with their providers but none accepted a method.

About (40%) of respondents return to menses by 4-6 months after delivery of which 76.9% initiated contraception while a few returned to menses 10-12 months. There was

a considerable high knowledge among postpartum women about fertility return symptoms as a result of the continuous postnatal education. In this study it was found that return to fertility was a strong predictive variable of postpartum contraceptive uptake. This confirmed the observation by Ross and Winfry (2000) that the return to fertility is directly linked with initiation of contraceptive uptake by women while Becker and Ahmed (2001) have found that family planning use was most likely in the month following menses return.

The current survey has revealed that more than 19% of the women who returned to sexual activity at least by 4-6 months were not using FP method. In spite of the fertility return behaviour awareness among respondents, it was observed that, contraceptive use during sexual intercourse was low. Hence contraceptive sustainability is a key behavioural issue and may result from forgetfulness to take the pill with regards to those on it, fear of side effect, religious prohibition and health concerns.

Choice of a contraceptive method plays a major role in postpartum FP acceptance. The study has shown that of the 67.7% postpartum women who accepted a method after delivery, most (71%) of them preferred injectables within the first year postpartum. The most prominent reasons for postpartum family planning acceptance in this survey was do not want any more children (74%), similar to Morhe & Ankobea (2011), who found that about 53% sought modern contraception within 12 months postpartum and most choose the injectables.

The intension to use family planning method in the future among non-users was relatively high (46%) within the Wa municipality while a large percent (54%) plan not to rely on FP at all. The study further showed that the main reasons cited for contraceptive future non-acceptance were fears of side effects (38.8%), health concerns (17%) and religious prohibition (17%). UNFPA, (2012), found similar reasons for future FP non-use. In Libya, less than 3 percent of women with unmet need who were not intending to use a method reported religious prohibition as the main reason (UNFPA, 2012).

### 5.4 Effects of service-related factors on postpartum FP uptake

Before a woman can accept FP, she needs to know about it through information education and communication. The study revealed that 4 in 10 women had information about family planning through hospitals and clinics, about 3 in 10 women heard from the radio, television and newspappers while (2 in 10 women) was through friends and NGOs. This is because the few staff available used the numerous local FM radio stations to dissseminate public health information in local languages effectively. This is low than (GSS/GHS/ICF Macro, 2009) findings that exposure to family planning messages shows that, Six in ten women age 15–49 and 7 in 10 men age 15–49 have heard family planning messages on the radio.

Family planning service quality is an integral part of acceptance. Clients therefore have a right to receive high quality service with dignity. Assuring high quality of service by the provider can lead to enormous benefits for leveraging opportunities associated with uptake. Of the dimensions of quality assessed in this study, none of them was found associated with postpartum contraceptive uptake. This means that attitude of service provider (p=0.79), general satisfaction of FP (p=0.19), informed on effective use of method (p=0.39) and information on side effect (p=0.67) had no impact on postpartum contraception uptake in Wa Municipality.

However, when respondents were asked about integration of FP service with MCH services as a one-stop shop for postpartum women, (81%) of postpartum women agreed with the concept of integrating family planning services with maternal and child health while 18% disagreed. This overwhelming endorsement also means that if the child is well and the mother is also well then, the woman will not go to the clinic for any service. Therefore, the need to fast track postnatal services to reduce waiting time for mothers is key to providers. Integrating these services will certainly increase uptake of contraception as reported by USAID, (2008), that, almost universally, a far greater proportion of women use services for antenatal care, immunization, and well-baby care than postnatal care services. Similarly, Ahmed and Mosley, 2002, demonstrated the use of contraceptives and maternal and child health (MCH) services to be significantly associated, independent of intervening factors.

#### CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

### **6.1 CONCLUSIONS**

Socio-demographic variables such as age, level of education, occupation, religion, and discussion number of children with partner were not significantly associated with postpartum contraceptive uptake at both bivariate and multivariate levels of analyses, testing at 0.05%. Parity was the only significant variable at both the bivariate and multivariate levels of analysis. This suggests that, parity was a strong predictor of postpartum FP uptake in the study. Again, no association was observed with regards to service-related factors.

The study has demonstrated that for postpartum women who discussed family planning with service providers immediately after delivery, nearly 68% accepted and used a method of contraception in the first year. However, a title over 18% refused to use contraception while 14% were undecided.

The desire to postpone child birth (68%) was the prominent reason for postpartum contraceptive uptake while fear of side effects (38.8%) was the most cited reason for contraceptive non acceptance. The injectables were the most preferred choice (71%) among respondents in the study.

There was overwhelming approval that family planning service be integrated within the maternal and child health services as one stop-shop. Therefore, the postpartum period presents a great opportunity for contraception uptake as the study highlights the

importance of developing interventions on client-provider interactions postpartum to increase more effective contraceptive methods use. Early provider contact with postpartum women has shown a greater opportunity of increased contraception.

#### **6.1 RECOMMENDATIONS**

### MUNICIPAL HEALTH DIRECTORATE

The municipal health management team should ensure that:

1 The issue of side effects which can lead to non acceptance or non sustainability of a method is addressed during contacts. The aim is to provide information on effective use of a method and available options for switching methods so that any category of women experiencing discomfort can sustain usage.

2 Family planning service providers should focus specifically on immediate postpartum contraception by providing education on fertility return behaviours, benefits of breastfeeding in preventing unintended pregnancies within the first six months postpartum and initiation of contraception before the return of menses or resumption of sexual activity as conception could precede return of menses after delivery.

#### REFERENCES

- Access-FP/Albania, (2008) Results from a Baseline Survey of Postpartum and Postabortion Women- Tirana, Albania
- Ahmed, S. & Mosley, W. H. (2002). Simultaneity in the use of maternal-child health care and contraceptives: evidence from developing countries. [Comparative Study Research Support, Non-U.S. Gov't]. *Demography*, 39(1), 75-93.
- Adjei S. A., Agyei V. (2013), Hurdles To Reducing Maternal Mortality In Sub-Saharan Africa: Lessons From Within. Accessed online, 03/07/2013, www.modernghana.com
- Bankole A., Oye-Adeniran B. A., Singh S., Adewole I. F., Wulf D., Sedgh G., Hussain R. (2006), *Unwanted Pregnancy and Unsafe Abortion in Nigeria: Causes and Consequences*, New York: The Guttmacher Institute.
- Blanc, Ann K., Sian L. Curtis, and Trevor N. Croft. (2002). "Monitoring contraceptive continuation: Links to fertility outcomes and quality of care," *Studies in Family Planning* 33(2): 127-140.
- Brambila C., Werner F., and Taracena B. (2001). "Situational analysis of post-obstetric event services in public hospitals in Guatemala," *FRONTIERS Final Report*. Washington, DC: Population Council.
- Becker S. & Ahmed S. (2001) Dynamics of contraceptive use and breastfeeding during the post-partum period in Peru and Indonesia, pages 165-179
- Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. (2006). Family planning: The unfinished agenda. *Lancet Series, Sexual and Reproductive Health*: 368.
- Campbell M, Sahin-Hodoglugil NN, Potts M. (2006). Barriers to fertility regulation: a review of the literature. Studies in Family Planning 37(2):87-98.
- Charles B. Nam, (2004), association today, Volume 2, The Concept of The Family: Demographic and Genealogical Perspectives, Center for Demography and Population Health, Florida State University
- Campbell O, Graham W (2006); Strategies for reducing maternal mortality: getting on with what works. Lancet (2006). 368: 1284–99
- Desgrees du- Lou A. & Brou H., (2005). Resumption of Sexual Relations Following Childbirth: Norms, Practices and Reproductive Health Issues in Abidjan, Cote d'Ivoire

- Dulli L. S., Eichleay M., Weaver M., Sortijas S., Nsengiyumva <sup>T. (2011)</sup>, Understanding Unmet Contraceptive Need among Postpartum Women in Rwanda: Application of the Health Belief Model. FHI 360, Kenya; FHI 360, US; University of North Carolina at Chapel Hill; FHI 360, Rwand
- DFID (2007) General and Maternal Health Status of Rural Women in Bangladesh: A Descriptive Study from Two Remote Villages.
- European journal of contraception and reproductive health care, Postpartum contraceptive acceptance in León, Mexico: a multivariate analysis (2003), Vol. 8, No. 4, Pages 210-216
- Fort, Alfredo L., Monica T. Kothari, and Noureddine Abderrahim. 2006. *Postpartum Care: Levels and Determinants in Developing Countries*. Calverton, Maryland, USA: Macro International Inc.
- Foreit KG, Foreit JR, Lagos G., Guzman A. (1993). Effectiveness and cost-effectiveness of postpartum IUD insertion in Lima, Peru. *Int Fam Plan Perspect* 1993;19:19-24, 33.
- Ghana Statistical Service, 2011. Ghana Multiple Indicator Cluster Survey with an Enhanced Malaria Module and Biomarker, 2011, Final Report. Accra, Ghana.
- Ghana National Population Council (GNPC), (1994). National Population Policy. rev. ed. Accra, Ghana.
- Guttmacher Institute. (2008). "In Brief: Facts on Induced Abortion Worldwide." Accessed on June 18, 2009. At: http://www.guttmacher.org/pubs/fb IAW.pdf.
- Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro. 2009. Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro.
- Guttmacher Institute. (2008). Sharing Responsibility: Women, Society and Abortion Worldwide. New York.
- Hong R., Montana L., Mishra V., 2006. Family planning services quality as a determinant of use of {IUD} in Egypt. {BMC} Health Services Research 6: 79. Accessed online 15/04/2014 www.biomedcentral.com
- **Iliff** PJ, Piwoz EG, Tavengwa NV, Zunguza CD, Marinda **ET**, Nathoo KJ, Moulton LH, Ward BJ, Humphrey JH; ZVITAMBO (2005). "Early exclusive breastfeeding reduces the risk of postnatal HIV-1 transmission and increases HIV-free survival," *AIDS* 19(7): 699-708.
- Jacobs, E., Brambila C., and Vernon R. (2002). "Reproductive health care in the postnatal period in Guatemala," *FRONTIERS Final Report*. Washington, DC: Population Council

- Kidane E.G, Binyam B., Wondafrash M., Tizta T., (2011), Married women's decision making power on modern contraceptive use in urban and rural southern Ethiopia
- Kennedy K. I., & Trussel J. (2004). Postpartum contraception and lactation. In R.H. Hatcher et al. (Eds.), contraceptive technology (18<sup>th</sup> rev. Ed., pp 575-600), new York
- Kpakpah Mariam, (2011), Ghana National Population Council at the commission on population and development forty -fourth session, General Debate on National Experiences in Population Matters: Fertility, Reproductive Health and Development: New York
- Leite, I. C. And Cupta, N. (2007). Assessing Regional Differences in Contraceptive Discontinuation, Failure and Switching in Brazil Reproductive Health accessed online at <a href="http://www.reproductivehealth-journal.com/content">http://www.reproductivehealth-journal.com/content</a>, 7 march, (2012)
- León-Cava, Natalia, Lutter C., Ross J., Martin L., Quantifying the benefits of breastfeeding: a summary of the evidence, Washington, D.C.: PAHO © 2002.
- Loomba P., Dham S., Bhanot A., (2011), Using Integrated Communication to increase spousal support and IUCD uptake among couples in Three States in Northern India, Population Services International, India
- Morhe E. K. and Ankobea F., (2011), Contraceptive Choices of New Family Planning Clients in Komfo Anokye Teaching Hospital, Kumasi, Ghana. Komfo Anokye Teaching Hospital, Kumasi, Ghana; School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
- Mody SK, Nair S, Dasgupta A, Raj A, Donta B, Saggurti N, Naik DD, Silverman JG., 2013. Postpartum contraception utilization among low-income women seeking immunization for infants in Mumbai, India.
- Medina R., Vernon R., Mendoza I., Aguilar C., (2001) Expansion of Postpartum / Postabortion Contraception in Honduras, population council
- Mwangi,. Warren, Koskei, Blanchard. 2008; Warren, Tšukulu, Phafoli, and Majara 2008). Meeting the family planning needs of postpartum women
- Ollerhead L., (2011), What could anthropological studies contribute to improving women's choice for pregnancy planning in sub Saharan Africa?
- Odeyemi K. A., Ibude B. E.,(2011), Promoting Male Participation in Family Planning in Rural Nigeria: a Community Based Intervention, University of Lagos (Lagos, Nigeria); Lagos University Teaching Hospital (Lagos, Nigeria)

- Postpartum Family Planning for Healthy Pregnancy Outcomes, (2009) A Training Manual, USAID
- PPFP Overview: Cleland, J., Bernstein, S., Ezeh, A., Faundes, A., Glasier, A., Innis, J. (2006.) Family planning: The unfinished agenda. *The Lancet*, 368(9549), 1810-1827
- Rademacher K. H., Prabhughate A. S., Mackenzie Green, Bill Finger, Gwyneth Vance, John Stanback, Evanthia Nickolas Canoutas, (2011), From Common Sense to Common Ground: Integration of Family Planning and Immunization, FHI 360, United States of America; FHI 360, India
- Romero-Gutiérrez G, Garcia-Vazquez MG, Huerta-Vargas LF, Ponce-Ponce de Leon aL (2003) Postpartum contraceptive acceptance in León, Mexico: a multivariate analysis
- Reynolds, H.W., Wilcher R. (2006). "Best kept secret in PMTCT: Contraception to avert unintended pregnancies," *AIDSlink*(97): 8-9.
- Rivero-Fuentes, Estela, Vernon R., Boulos M., and Boulos L. M. (2007). "Haiti: Situational analysis of the use of contraception in postpartum, postabortion and prevention of mother to child HIV transmission," *FRONTIERS Final Report*. Washington, DC: Population Council.
- Ross J. A. and Winfrey W. L. (2001). "Contraceptive use, intention to use and unmet need during the extended postpartum period," *International Family Planning Perspectives* 27(1): 20-27.
- Singh S, Darroch JE, Ashford LS, Vlassoff M. (2009). Adding it up: the costs and benefits of investing in family planning and maternal and newborn health. Gutmaccher Institute and United Nation Population Fund: NEW YORK
- Salahuddin A, Jaime M, Saifuddin A, Amnesty L, Peter W, Catharine Mc, Ahmed Al K, Abdullah B, (2011), Impact of Integrating Family Planning within a Community-Based Maternal and Neonatal Health Program in Rural Bangladesh. Johns Hopkins Bloomberg School of Public Health; Jhpiego; RTM International
- Sedgh G, Hussain R, Bankole A, Singh S. (2007), Women with an unmet need for contraception in developing countries and their reasons for not using a method. Occasional Report, New York: Guttmacher Institute.
- Seiber E. E., Hotchkiss D. R., Jeffrey J. Rous, Berruti A. A. (2005), Is Maternal and Child Health Service use a Causal Gateway to Subsequent Contraceptive use?: A Multi-Country Study
- Tazhibayev S., Sharmanov T., Ergalieva A., Kushenova R., (2004). "Promotion of lactational amenorrhea method intervention trial, Kazakhstan," *FRONTIERS Final Report.* Washington, DC: Population Council.

- USAID, (2008), Meeting the family planning needs of postpartum women, accessed on line 11/11/2013, www.popcouncil.org/pdfs/frontiers/pbriefs/PB10.pdf
- United Nations Population Fund. (2010). How universal is access to reproductive health? A review of the evidence. Accessed online, 12th February 2011, at <a href="http://www.unfpa.org/webdav/site/global/shared/documents/publications/2010/universal\_rh.pdf">http://www.unfpa.org/webdav/site/global/shared/documents/publications/2010/universal\_rh.pdf</a>
- UNFPA, 2010. Benefits of Investing in Family Planning. key findings from the 2009 Guttmacher-. UNFPA report accessed online on 11/11/2012 at https://www.unfpa.org/.../IB\_Facts%20on%20AIU%20Nov%202010%2...
- USAID, DHS Trend Reports No. 1, 2005, Ghana Trend Analysis for Family Planning Services, 1993, 1996, and (2002), Calverton, Maryland USA
- UNFPA, (2012), Women's Need for Family Planning in Arab Countries accessed online on 12/12/2013 at www.unfpa.org/worldwide/family-planning-arab-countries-2.pdf
- Vernon and Ricardo. 2008. "Meeting the Family Planning Needs of Postpartum Women," FRONTIERS Program Brief No. 10. Washington, DC: Population Council
- World Health Organisation. (2007). Maternal Mortality 2005: estimates developed by WHO, UNICEF, UNFPA, and the World Bank. Accessed online, 12th February 2011, at <a href="http://whqlibdoc.who.int/publications/2007/9789241596213\_eng.pdf">http://whqlibdoc.who.int/publications/2007/9789241596213\_eng.pdf</a>
- Warren, Charlotte, Tšukulu T., Phafoli S., Majara B. (2008). "Extending prevention of mother-to-child transmission through postpartum family planning in Lesotho" *FRONTIERS Final Report*. Washington, DC: Population Council.
- World Health Organization 2012; Trends in maternal mortality: 1990 to 2010 .WHO, UNICEF, UNFPA and The World Bank estimates.
- World Health Organization/Department of Reproductive Health and Research (WHO/RHR) and Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP), INFO Project. (2007). Family Planning: A Global Handbook for Providers. Baltimore and Geneva: CCP and WHO
- Yavinsky R. W, (2011), Postpartum Family Planning Use in Uganda: Evidence from the 2006 Demographic and Health Survey, Population Reference Bureau

### APPENDIX 1 FAMILY PLANNING USER QUESTIONNAIRE

Kwame Nkrumah University of Science and Technology, College of Health Sciences, School of Medical Sciences, Department of Community Health Predictors of Postpartum family planning uptake: understanding provider and potential FP user behaviour in Wa municipal in the upper west region of Ghana

We would like to ask you some questions about postpartum family planning in this municipality. The aim of the interview is (not to evaluate your performance) to seek your assistance in finding ways of improving postpartum family planning uptake. Your participation is purely voluntary and you are not obliged to answer any question you are not comfortable answering and you may withdraw from the interview at anytime. However, we will ensure strict confidentiality and your name will not be required. In case you need further information, you can contact the following:

Dr. Easmon Otupiri-0208111980; Tirah Haruna-0242001681

### PP- FP USER TOOL

INTERVIEW INFORMATION
DATE OF INTERVIEW    Day    Month  _     Year
RESULT *
INTERVIEWER NAME
SUPERVISOR
*RESULT CODES:
1=COMPLETED 2=REFUSED 3=OTHER (SPECIFY)
CEE VIEW
The state of the s
The same
all a second
RESPONDENT'S IDENTIFICATION
Facility NAME Facility ID
Respondent ID
7
SAD BROW
S BA
WU SANE NO

### INTERVIEWER: INTRODUCTION AND CONSENT. May I begin the interview

now?

NO DADE	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	1: SOCIO-DEMOGRAPHIC CHARACTERISTICS I like to start by asking you a few questions about yourse	Respondent ID   _ _	
Q1	Please, tell me your date of birth or your age in completed years.	day     month     year	
		_  age (completed years)	
Q2	What is your marital status?	Married	
Q3	Level of education	None         .1           Primary         .2           Middle/JSS         .3           Secondary         .4           Tertiary         .5           Other, specify         .6	
Q4	What is your occupation?	Clerical/salaried worker         1           Farming/Fishing         2           Trading/Small scale business         3           Artisan         4           Casual worker         5           Unemployed         6           Other (specify)         7	
Q5	What is your religious denomination?	Christian.         1           Moslem.         2           Traditionalist         3           No religion         4           Other, (specify)         5	
	2: Postpartum Fertility preference/family size expect would like to ask you questions about your family size at		I
Q6	If married /Living with partner how long have you been together?	_ years	
Q7	In your opinion, what is the ideal age for a woman to get married?	L Years Don't know	
Q8	Have you and your partner ever discussed the number of children you would like to have?	Yes         1           No         2           Don't remember         88	
Q9	How many children do you think a family should have?	_  As many as God wants	
Q10	How many children do you have?	Don't know88	
Q11	Would you like to have more children than you have now?	Yes.     1       No.     2       Don't know.     88	Skip to Q15

Q12	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	boys	
Q13	Do you think it is advisable to let some time pass between consecutive births?	Yes         1           No.         2           Don't know.         3	
Q14	How long?	Years   _           1           Months   _           2           Don't know.         88	
Q15	Does your husband want the same number of children that you want, or does he want more or fewer than you want?	Same number.       1         More children.       2         Fewer children.       3         Don't know.       4	
Q16	How many (more)?	Number   _  As many as God want	
Q17	some people think that having many children will help parents with financial security.	Strongly agree         1           Somewhat agree         2           Somewhat disagree         3           Strongly disagree         4	
Q18	How old should a woman be at her last child bearing?	_ _ Years Don't know88	
Q19	What are your concerns for having a child after this age?		
Q20	How much education (schooling) would you like for your sons/daughters (if you have/had one)?	Primary school         1           High school         2           College/university         3           No particular level desired         4           Don't know         .88	
Q21	Can you afford for all your children to go to school and study as much as they want?	Yes         1           No         2           Other         0           Don't know         88	
Q22	If you are not able to afford schooling for all your children, what do you plan to do?	I will send only a few of my children to school, boys or girls	
Q23	Who usually makes major decisions concerning your children's education?	Me       1         My spouse       2         Both of us       3         Other       0         Respondent doesn't answer       99	
	3: Postpartum Family Planning 1: immediate post-partum period		

Q24	Has your maternity staff been discussing family planning issues with you immediately after delivery?	Yes1,	
		No,2	Skip to
Q25	If yes have you accepted the concept of family planning?	Yes	Skip to Q31
Q26	If yes, please indicate the family planning methods that your service provider educated you on?  Please, indicate everything mentioned by the	Pill       1         IUD       2         Condom       3         Spermicides       4	
	respondent	Injectables         5           Implants         6           Diaphragm         7           Periodic abstinence         8           Withdrawal         9           Other traditional methods         10           Female sterilization         11           Male sterilization         12           Other method         0           Unsure         88	
Q27	Were you given any method?	Yes	Skip to Q31
Q28	Which of the methods were you given?		
		1	
Q29	What is the main reason for accepting a method?	Postponed child birth	
Q30	If no,		
I	Were you scheduled another appointment.	(date)?1	
II	Were you referred to another facility?	Where?2	
III	None of the above	3	
Q31	Do you think that promoting contraception to women in the immediate post-partum period is appropriate?	Yes	
Q32	In the period after child birth, what is your main concern?	Mother's own health         1           Newborn child health         2           Both         3           None of the above         4	
	2: Extended post-partum period 12A: Breastfeeding and use of LAM		•
Q33	When was your child born?	_ Day     month      year	

Q34	Have you been breastfeeding your babies?	Yes	
Q35	Did anyone talk to you about LAM?	Yes	
Q36	If yes, are you using LAM?	Yes	
Q37	Can you tell me the 3 criteria that a woman must do in order to use LAM?	Yes, (List them)	
Q38	Do you think LAM is effective?	Yes       1         No       2         Don't know       88	
Q39	How would you rate the effectiveness of LAM:	Very effective1Effective2Not effective3	
Section	2B: Return to menses and FP use		
Q40	Do you get your menses regularly at the expected	Yes1	
	dates?	No2	Skip to Q42
Q41	dates?  What time did it take your menses to return after	No	
	dates?	No.       .2         0-3mths.       .1         4-6mths.       .2         7-9mths.       .3	
	dates?  What time did it take your menses to return after	0-3mths	
	dates?  What time did it take your menses to return after	No	
Q41 Q42	dates?  What time did it take your menses to return after delivery?  If no, are there any concerns?	No.       .2         0-3mths.       .1         4-6mths.       .2         7-9mths.       .3         10-12mths.       .4	
Q41 Q42	What time did it take your menses to return after delivery?	No.       .2         0-3mths.       .1         4-6mths.       .2         7-9mths.       .3         10-12mths.       .4	
Q41 Q42	dates?  What time did it take your menses to return after delivery?  If no, are there any concerns?	No	
Q41 Q42	dates?  What time did it take your menses to return after delivery?  If no, are there any concerns?	No.       .2         0-3mths.       .1         4-6mths.       .2         7-9mths.       .3         10-12mths.       .4	
Q41 Q42 Section	What time did it take your menses to return after delivery?  If no, are there any concerns?  2C: Return to sexual activity and FP use	No	
Q41 Q42 Section	What time did it take your menses to return after delivery?  If no, are there any concerns?  2C: Return to sexual activity and FP use	No	
Q41 Q42 Section	What time did it take your menses to return after delivery?  If no, are there any concerns?  2C: Return to sexual activity and FP use  Do you have feelings for sexual activity now?	No	

Q46	Who initiated the return to sexual activity?	Husband1	
	,	Woman	
		Both	
		Don't know88	
Q47	Please consider the following statement: It is wrong	Strongly agree	
	to use contraceptives or other means to avoid or	Agree	
	delay pregnancy. Would you say youwith this statement?	Are neutral 3	
	this statement?	Disagree	
		Strongly disagree	
Q48	The last time you had sex, have you used a	Yes	
	contraceptive method to avoid a pregnancy?	No2	<b>→</b>
		Don't know	Skip to
		Respondent doesn't answer99	Q53
Q49	what contraceptive method did you use?	Pill1	
		IUD2	
		Condom3	
	1714	Spermicides	
		Implants	
	h	Diaphragm7	
		Periodic abstinence	
	1	Withdrawal9	
		traditional methods	
		Others0	
	A. A. A.	47	
Q50	From where did you/your partner obtain your		
	method?		
Q51	Is it easy for you/your partner to get the birth	Yes1	
	control method you used then?	No2	
		Not sure	
	The same of the sa	-1350	
Q52	Was the method effective in preventing pregnancy?	Very effective	
	1 PS//K.L	Effective	
	CLASTE	Somewhat effective	
		Not effective at all	
		Respondent doesn't answer99	
Q53	Would you say that using contraception is mainly	Mainly respondent	
-	your decision, mainly your partner's decision, or did	Mainly partner	
	you both decide together?	Joint decision3	
	2	Other0	
	703	Salv	
	WASCH	NO >	
Q54	Do you discuss contraceptive methods with your	Yes1	
	partner(s)?	No2	
Q55	Do you think you will rely on a contraceptive	Yes 1	
	method to delay or avoid pregnancy at any time in	No22	Skip to
	the future?	Don't know	Q57
Q56	Which contraceptive method would you prefer to		
	rely on?		

Q57	What is the main reason why you think you do not (will not) rely on a contraceptive method at any time in the future?	Fear of side effect.       1         Wife/partner opposed       2         Religious prohibition       3         Knows no method       4         Health concerns       5         Lack of access/too far       6         Interferes with body's normal processes       7
Q58	To what extent do you think contraceptives are potentially damaging to women health?	Strongly disagree       1         Disagree       2         Undecided       3         Agree       4         Strongly agree       5
	4: service related factors 1: service provider attitude	051
Q59	How would you rate the provider on the following issues? (Very good=1, Good=2,fair=3, poor=4)	Reception Appearance Privacy Confidentiality/Trustworthiness Availability Counseling
Q60	What additional comments do you have to say about the rating you give above?	
Q61	What can you say about the general attitude of service provider?	Friendly
Q62	How will you rate information provision on effective use of method?	Very good          Fair          Poor
Q63	How will you rate information provision on side effects of FP methods by service provider?	Very good
Q64	How do you feel about general satisfaction of FP services?	Satisfied
	2: accessibility to FP services/methods would like us to talk about accessibility to FP services/methods	ethods
Q65	How do you get to know about the provider/service?	Friends

Q66	Have you ever visited the provider?	Yes
Q67	What were the activities/services that you visited the provider for?	Counseling.       1         Contraceptives.       2         Minor ailments.       3         Clean up exercise.       4         IEC(film shows, home visits drama etc)5         Other (specify).       6
Q68	What do you think about the price of contraceptives? (Cheap=1 Affordable=2 Expensive=3)	Condom
Q69	What can you say about the general prices of FP methods?	High.       .1         Low.       .2         Other (specify)       .0         Don't know.       .88
Q70	Suppose the prices of other contraceptives were increased, would you still purchase them?	Yes
	PART5: improving FP use and quality of service	
Q71	Whose involvement is most needed in improving post-partum FP use?	Couples         1           The community         2           NGOs         3           Hospitals         4           Government         5           Other (specify)         0
Q72	What do you think can be done by providers to improve FP? Information sharing through	couples
Q73	What do you think should be done to improve the sources of supply of FP methods?	Supply sources should be made available in households
Q74	To what extent do you agree with integrating family planning services within the maternal and child health services as one stop shop for women in the post-partum period?	Strongly Agree       1         Mildly Agree       2         Agree       3         Mildly disagree       4         Disagree       5         Strongly disagree       6

Q75	Do you agree that cost of FP methods be absorbed by NHIS	Strongly Agree       1         Mildly Agree       2         Agree       3         Mildly disagree       4         Disagree       5         Strongly disagree       6	
Q76	Can you tell me any suggestions for the improvement of postpartum family planning? (Interviewer write down all mention)	LIGT	



### APPENDIX 2 FAMILY PLANNING SERVICE PROVIDER QUESTIONNAIRE

Kwame Nkrumah University of Science and Technology, College of Health Sciences, School of Medical Sciences, Department of Community Health

Predictors of Postpartum family planning uptake: understanding provider and potential FP user behaviors in Wa municipal in the upper west region of Ghana

We would like to ask you some questions about postpartum family planning in this municipality. The aim of the interview is (not to evaluate your performance) to seek your assistance in finding ways of improving postpartum family planning uptake. Your participation is purely voluntary and you are not obliged to answer any question you are not comfortable answering and you may withdraw from the interview at anytime. However, we will ensure strict confidentiality and your name will not be required. In case you need further information, you can contact the following:

Dr. Easmon Otupiri-0208111980; Tirah Haruna-0242001681

### **PP-FP PROVDER TOOL**

INTERVIEW INFORMATION DATE OF INTERVIEW RESULT* INTERVIEWER NAME SUPERVISOR *RESULT CODES: 1=COMPLETED	Day Mont	h   Year Year 3=OTHER (SPECIFY)	
RESPONDENT'S IDENTIFICAT Facility NAME  Facility ID  Respondent ID		NOW!	

### **INTERVIEWER: INTRODUCTION AND CONSENT.** May I begin the intxjyu7erview now?

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	1: SOCIO-DEMOGRAPHIC CHARACTERISTIC I like to start by asking you a few questions about your		
Q1	Please tell me your date of birth or your age in years.	day       month       year       age (completed years)	
Q2	What is your marital status?	Married (civil, traditional, religious)	
Q3	How long have you been married/living together?	years	
Q4 Q5	How many children do you have? How many of your children live with you?	children	
Q6	What is your religion?	Catholic       1         Anglican       2         Methodist       3         Presbyterian       4         Other Christian       5         Muslim       6         Traditional/Spiritualist       7         No religion       8         Other       0	
Q7	To what ethnic group do you belong?	Wali       1         Dagare       2         Lobi       3         Sisali       4         Others(Specify)       0	
LOCA	TION		
Q8	Tell me, please, have you always lived in the community where you now live?	Yes         1           No         2           Don't know         88	
Q9	How long have you lived in this community?	Don't know	
Q10	What is your primary profession/occupation?	Midwife	

	PART2: Postpartum Fertility preference/family size expectation  Now I would like to ask you questions about your family size and expectations.		
Q11	In your opinion, what is the ideal age for a woman to get married?	years	
		Don't know88	
Q12	How much time should there be between marriage and the birth of the first child?	Less than 1 year	
	and the birth of the first child?	From 1 to 2 years	
		From 3 to 4 years4	
		From 4 to 5 years5	
		More than 5 years6	
Q13	Do you think it is advisable to let some time pass	Yes1	

	between consecutive births?	No	→ Q15 → Q15
Q14	How long?		7 Q13
		Don't Image	
Q15	How old should a woman be at her last child	Don't know	
	bearing?		
Q16	Do you advocate that couples discuss the number	Don't know	
Q10	of children they would like to have?	No2	
017	Harris and the state of the sta	Don't remember	
Q17	How many children do you think a family should have?	number As many as God wants00	
		Don't know88	
	3: postpartum Family Planning ON1: immediate post-partum period		
		LICT	
Now I	need to ask you some questions about current family pla	nning services provided at your facility	
Q18	Did you normally give reading	Yes1	
	materials/information about family planning to the post-partum women while they were staying at the	No, why not?2	
	service?		
Q19	Did you discuss family planning with clients at	Yes1	SKIP
	any time during the service?	No2 —	to 26
		1170	
Q20	Did you educate them on any family planning method?	Yes. list them?1	
	mediod.		
		No2	
Q21	Did the client accept the concept of family	Yes1 which method?	
	planning?	No2, why?	
Q22	if they did not take any method or discussed	Were they scheduled another appointment.	
	family planning during that period:	(date)?	
	1 Soft	2	
022	D M d d d d d	None of the above	
Q23	Do you agree with the statement that modern methods of contraception are potentially damaging	Strongly disagree	
	to the women health?	Undecided3	
		Agree	
Q24	Do you agree that promoting contraception to women in the immediate post-partum period is	Strongly disagree	
		Undecided         .3           Agree         .4	
	appropriate?	Agree	
		Strongly agree	
Q25	Why?	E	
Section	12: Extended post-partum period		
	2A: Breastfeeding and use of LAM		
Q26	Do you encourage mothers to strongly breastfeed?	Yes, why?1	
220	20 you oncourage mounts to subagily crousineed.	No, why?2	
Q27	What did you say about LAM to mothers?		
Q21	what did you say about LAWI to mothers:		
Q28	Mention the 3 criteria that a woman must do in		
	order to use LAM?		
Q29	How do they perceive LAM?		
Q23	How do they perceive LAIVI!		1

Section	n 2B: Return to menses and FP use		
Q30	Do clients discuss with you about return of their menses?	Yes	
Q31	If yes, what information do you offer to them?		
Q32	If no, do you probe to find out?	Yes	
Section	n 2C: Return to sexual activity and FP use		I
Q33	Do clients discuss with you about postpartum sexual concerns?	Yes	SKIP to Q36
Q34	What are the concerns?		
Q35	What advice do you give them?	(A)	
Q36	How do you help your clients to prevent unwanted pregnancies?	1, 12	
	: service related factors n 1: Availability of FP services / methods	107	
Q37	What services do you have available to your FP clients?	List	
Q38	In your opinion are these services adequate to meet the needs of your client?	Yes	Skip to Q41
Q39	What are the potential gaps in the services?		
Q40	What do you do about these gaps?		
	n 2: Accessibility of FP services/methods would like us to talk about accessibility to FP services/i	methods	1
Q41	Do you think your services are adequately accessible to your clients?	Yes	
Q42	If yes, why do you think the services are adequate?		
Q43	How often do your clients visit your outfit for		
Q44	services?  Are you able to provide the services for which your	Yes1	
Q45	clients visit you?  In terms of quality of service, how do you rate your needs in overcoming barriers as a provider?	No	
Q46	What are the complaints clients present as side effects to you in your clinic		

PART	PART5: improving FP use and quality of service					
Q47	Whose involvement is most needed in improving post-partum FP use?					
Q48	What do you think can be done by management to improve FP?					
Q49	Is it appropriate to integrate family planning services within the maternal and child health services as one stop shop for women in the post-partum period?	Yes				
Q50	If yes, why?					
Q51	If No, why?					
Q52	Can you mention any other issues that serve as a barrier/challenge to you? (Interviewer write down all mention)					

# KNUST



### **APPENDIX 3**

### MAP OF STUDY AREA

### Map of Wa Municipal

