**SCHOOL OF PUBLIC HEALTH**

**COLLEGE OF HEALTH SCIENCES**

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# FACTORS INFLUENCING CONTRACEPTIVE UPTAKE AMONG REPRODUCTIVE WOMEN IN TAMALE METROPOLIS

**BY**

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**(10239012)**

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY IN APPLIED EPIDEMIOLOGY AND DISEASE CONTROL DEGREE**

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# DECLARATION

**Students' declaration**

I, **Marijanatu Abdulai** of University of Ghana School of Public Health, do hereby declare that except for citations and ideas that have been duly acknowledged, this dissertation is an original work produced by me under the supervision of Dr. Kofi Mensah Nyarko. This work has never been submitted in part or whole to any Institution or Board for the award of any degree.

Candidate's signature……..… ….. Date……..…

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Supervisor's signature……. Date……..

Name: Dr. Kofi Mensah Nyarko

# DEDICATION

This work is dedicated to the Almighty Allah the maker of all things through whom this work has become possible.

To my lovely family especially my dear husband Mr. Abdul Gafar Kamara, my children Hakeem and Munisa who made lots of sacrifice to make this piece possible.

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# LIST OF ACRONYMS

| | |
|---|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| AOR | Adjusted Odds Ratio |
| CI | Confidence Interval |
| COR | Crude Odds Ratio |
| CPR | Contraceptive Prevalence Rate |
| EA | Enumeration Area |
| DHS | Demographic and Health Survey |
| FGDs | Focus Group Discussions |
| FP | Family Planning |
| GFELTP | Ghana Field Epidemiology and Laboratory Training Programme |
| GHS | Ghana Health Service |
| GMHS | Ghana Maternal Health Survey |
| GNA | Ghana News Agency |
| GSS | Ghana Statistical Service |
| HIV | Human Immune Deficiency Virus |
| IPPF | International Planned Parenthood Federation |
| IUDs | Intrauterine Devices |
| MCH | Maternal and Child Health |
| MDGs | Millennium Development Goals |
| MOH | Ministry of Health |
| OR | Odds Ratio |
| SES | Socioeconomic Status |

| | |
|---|---|
| SPSS | Statistical Package for Social Sciences |
| TFR | Total Fertility Rate |
| UN | United Nations |
| UNPF | United Nation Population Fund |
| WHO | World Health Organization |
| WPP | World Population Prospects |

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# ABSTRACT

**Introduction**

Contraceptive uptake can accelerate the achievement of not only the four Millennium Developments Goals( MDGs) that are directly related to reproductive health, but can also help in the elimination of poverty and hunger as well as environmental sustainability.

Despite these benefits, modern contraceptive uptake among reproductive women, in Ghana is still below the national target of 51 %. The Northern Region has one of the lowest contraceptive uptake in the country over the past decade. The study therefore assessed factors that influence contraceptive uptake among reproductive women in the Tamale Metropolis.

**Methods**

A cross sectional study using both qualitative and quantitative approach was used to elicit information from reproductive women between the ages of 15-49years from all the three sub Metropolis in Tamale from February to March 2015. The study used cluster sampling to recruit 475 women and interviewed them using a structured questionnaire. In addition, nine focus group discussions (FGDs) were held among community members who were purposively selected. The quantitative data were analyzed using Stata version 13. Multiple logistic regression was used to identify factors associated with contraceptive uptake. Both crude and adjusted odds ratios were estimated at 95% confidence intervals. Socio-economic status was determined using principal component analysis. FGDs were recorded, transcribed verbatim and analyzed with Nvivo 10 software. Both the quantitative and qualitative data were later triangulated in reporting the results of the study.

**Results**

A total of 475 reproductive age women were studied. The mean age was 26years. The prevalence of contraceptive uptake among reproductive women was 36.8 %( 165 out of 448) while that of married women was 34.3%. Women with secondary education [AOR=4.4(95%CI, 1.6-12.4)], occupation [AOR=0.3(95%CI, 0.1-0.8)], having separate facilities to serve adults and adolescents [AOR=0.4(95%CI, 0.2-0.7)] and my partner does not know I use contraceptives [AOR=0.4(95%CI, 0.2-0.9)] were identified as factors affecting contraceptive uptake among women in the Metropolis.

**Conclusion**

The study found contraceptive prevalence rate (CPR) among women in reproductive age in the Metropolis to be 36.8%. Factors that were identified to significantly affect contraceptive uptake within the Metropolis were, attitude of contraceptive service providers towards clients, prior public education on contraceptives by service providers, the environment where the services are provided and partner involvement in contraceptive uptake.

A concerted effort from all stake holders including religious, opinion leaders, health authorities the government as well as community members is necessary to scaling up contraceptive uptake in the region

**Keywords**: **Contraceptives, Contraceptive Uptake, Tamale Metropolis, Reproductive, Women, MDGs, Prevalence and Ghana.**

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the study

Contraception is the deliberate use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. It could also be described as an intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs, or surgical procedures (Darroch, et al., 2011). This means that a behavior become a contraceptive if it purpose is to prevent a woman from becoming pregnant.

The World Bank observed that investing in better maternal health not only improves a mother's health and that of her family, but also increases the number of women in the workforce and promotes the economic well-being of communities and countries (Vladimir & Glazunova, 2013). In recent years, the global development agenda has become overwhelmingly dominated by the Millennium Development Goals (MDGs). Four of the eight MDGs (goals 3, 4, 5 and 6) are health related and fall under the broad umbrella of reproductive health: promoting gender equality and empowering women, reducing child mortality rates, improving maternal health, and combating HIV/AIDS, malaria, and other diseases respectively (UNDP, UNFPA, WHO, & World Bank, 2008).

To achieve this, many countries in the world including Sub Saharan African countries focused their attention on birth control measures, especially the use of modern contraception as the main indicator for achieving the set goals. According to the World Health Organization report, the level of contraceptive use has a strong, direct effect on Total Fertility Rate (TFR) (Cleland et al., 2006). The 2012 Revision of the World Population Prospects (WPP) stated that fertility in the less developed regions as a whole is expected to drop from 2.69 children per woman in 2005-2010 to

2.29 in 2045-2050 and to 1.99 in 2095-2100 (United Nations: Department of Social and Economic Affairs, 2013). To achieve such reductions, it is essential that access to family planning is expanded, particularly in the least developed countries including Ghana. The urgency of realizing the projected reductions of fertility is brought into focus by considering that, if fertility were to remain constant at the levels estimated for 2005-2010, the population of the less developed regions would increase to 9.8 billion in 2050 and to 27.5 billion in 2100 instead of the 8.2 billion and 9.6 billion projected, by assuming that fertility declines(United Nations: Department of Social and Economic Affairs, 2013). That is, without further reductions of fertility, the world population by 2100 could increase by nearly six times as much as currently expected. Given the strong evidence of the benefits of investing in the health of women and their newborns: fewer unintended pregnancies; fewer maternal and newborn deaths; and healthier mothers and children(Connor, 1968) (Singh et al., 2009). Among the benefits as outlined by Singh *et a*l. (2009) are, greater family savings and productivity; and better prospects for educating children, strengthening economies and reducing the pressure on natural resources in developing countries. This means that contraceptive services and uptake needs more dedicated efforts by all. The achievement of universal access to reproductive health and for that matter improved maternal health has not been so successful. It has been observed that of all the MDGs, the indicator that has made the least progress is the maternal health goal. Globally, the maternal mortality ratio declined by 45 per cent between 1990 and 2013, from 380 to 210 deaths per 100,000 live births. However, this still falls short of the MDG target of reducing the maternal mortality ratio by three quarters by 2015 (United Nations, 2010).

A study by (Singh et al, 2009), indicates that, a substantial proportion of women who want to avoid a pregnancy, whether to postpone or to stop childbearing, are not using modern contraceptives. It is therefore observed that, worldwide, about 80 million unplanned pregnancies

occur each year which is the leading cause of induced abortions with its associated maternal and infant morbidities and mortalities (Cleland et al., 2006). It is estimated that every day, nearly 800 women across the globe die as a result of complications of pregnancy and childbirth; 99 percent of these deaths occur in developing countries (Prusty et al., 2015). Preventing unintended pregnancies by contraceptive use reduces induced abortion - as well as avoiding potential complications of pregnancy including maternal morbidities and mortality (Campbell & Graham, 2006) .

Family planning service is the single most effective strategy that ensures contraceptive uptake and comes with a whole lot of benefits. Providing modern family planning services brings a wide range of benefits for women, their families and society (Singh et al., 2009). Family planning and for that matter contraceptive use is a crucial strategy to halt the fast population growth, to reduce child mortality and improve maternal health (Millennium Development Goal 4 and 5) (Mohammed et al, 2014). Barely a year to the set deadline for the achievement of universal access to contraceptives through family planning services, the gains have not been universal across the world. It is observed that contraceptive uptake among women of reproductive age who are married or in union vary between 3% in Chad and 88% in Norway, with a world average of 63%. As a region, sub-Saharan Africa has the lowest level of contraceptive prevalence, with only 21% of women of reproductive age who are married or in union using some method of contraception and contraceptive prevalence level below 20% have been reported in Western Africa (UN, 2009).

The situation is not different in Ghana as the governments in collaboration with other stakeholders involved in the provision of family planning services have put in place various strategies and policies to increase uptake of contraceptives. These are aimed at increasing contraceptive prevalence rate (CPR) and reduction in total fertility rate (TFR). Despite the various strategies and

policies, total fertility rate still remain high at 4.2 while CPR for family planning is estimated at 34.3% (World Bank, 2011).The country currently has a contraceptive prevalence rate of 34% compared to a national target of 50% with the Northern Region having a CPR of 8% (Ghana Statistical Service (GSS), Ghana Health Service (GHS), & Macro International., 2009). Contraceptive prevalence is therefore very low in Ghana and across many of its districts especially the Northern Region.

This may lead to unintended pregnancies and high total fertility rate in the region. Various strategies have been proposed to reverse this disturbing trend. Several factors may account for this low uptake of contraceptives, however little is known of the factors affecting uptake of contraceptives in the Tamale Metropolis.

### 1.1 Problem Statement

Contraceptive uptake is key to reducing Total Fertility Rate, maternal mortality and morbidity as well as contributing to improvement in infant welfare. Global fertility rate stood at 2.9 in 2010 and has fallen to 2.8 in 2012 and the trend seems to show a direct relationship between the fertility rate and economic development. Thus, developed economies have lower fertility rates than developing economies (World Bank, 2012). In Ghana, the total fertility rate declined from 3.9 in 2000 to 3.2 in 2010 while the Northern Regions had fertility rate of 3.5 as at 2010.( GSS,2010).Global contraceptive prevalence stood at 63% while Africa had a CPR of 50%(United Nations: Department of Social and Economic Affairs, 2013).

Contraceptive prevalence is very low in many districts in Ghana especially in Northern Region. The country currently has a contraceptive prevalence of 34% while the Northern

Region has a CPR of 8%. (World Bank, 2015). One of the indicators for achieving the Millennium Development Goal 4 &5 is increasing the contraceptive prevalence rate. Though, data from DHS shows a gradual decline in the fertility rate, Ghana's indicator still remains far from the target and Northern region tops the fertility rate with Tamale being the regional capital representing almost 10% of the region's population indicating that the contraceptive prevalence rate is too low and thus far from reaching the MDG 5 which should be attained by 2015.

It is therefore acknowledged that even though the use of contraceptive among women of child bearing age is very prudent, not many of these women are adopting any form of contraception.

The reasons for this low contraceptive uptake is not well documented. Moreover, most studies conducted usually focus on contraceptive use among adolescents (Boamah et al., 2014). This gap in literature therefore calls for a study that aims at determining the major factors that may account for contraceptive uptake among reproductive women in the Tamale Metropolis.

## 2.5 Conceptual Framework

The uptake of modern contraceptives among women of reproductive age (15-49 years) is said to be influenced by a complex interaction of factors including demographic, socio-cultural, and socioeconomic as well as health service delivery factors. The demographic features of age, marital status, religion and ethnicity influence uptake of modern contraceptives. Socio-culturally; cultural norms and beliefs, partner/family support and the demand for bigger families influence the individual's conception choices and hence contraceptive uptake. Socioeconomic factors of education, wealth/employment status and place of residence also influence contraceptive uptake. Also, reproductive health service delivery factors such as attitudes and skills of the providers,

method specific side effects, availability of methods, ease of use and access of contraceptive method do act directly or indirectly to influence uptake of contraceptives.

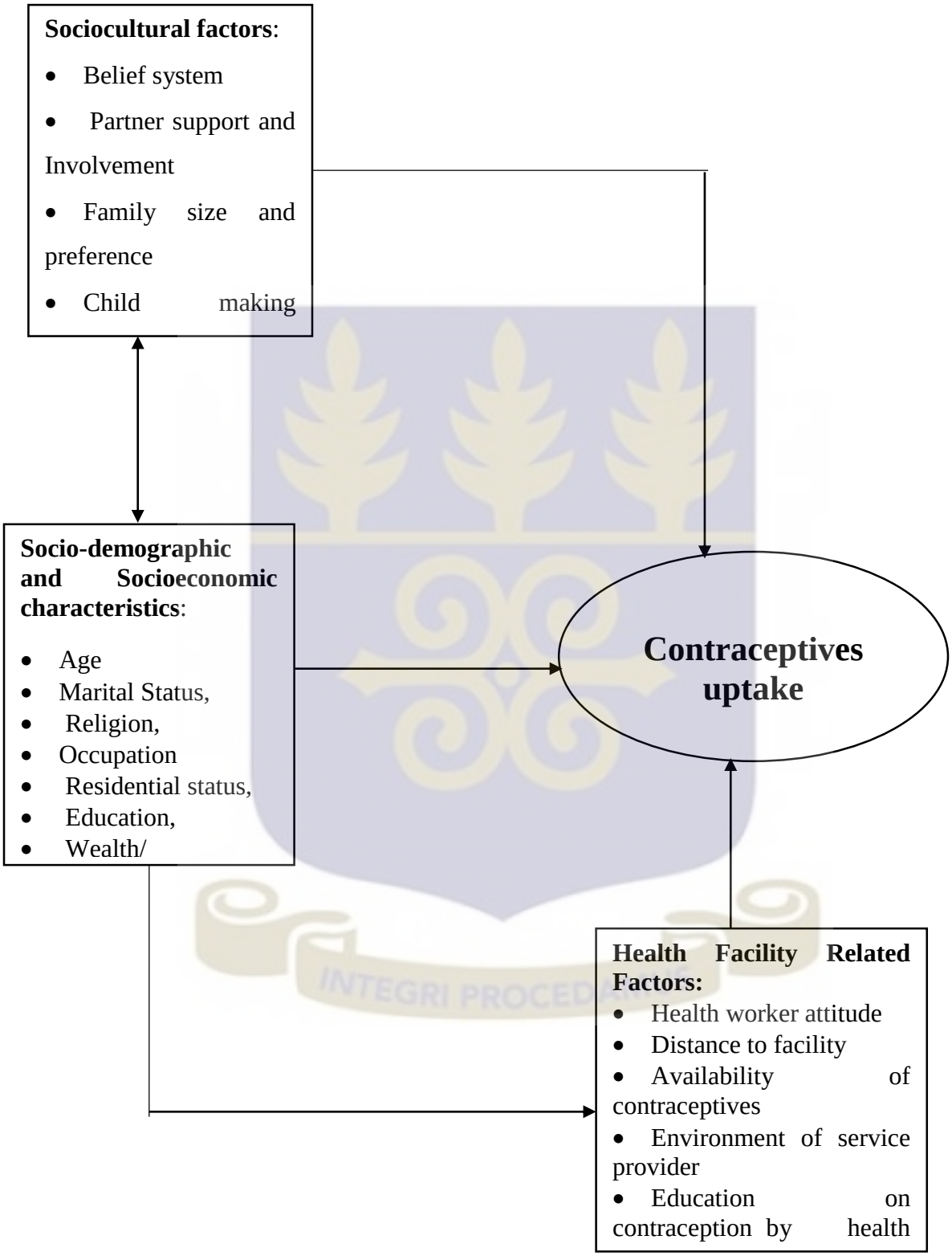


**Figure 1 Conceptual Framework**

## 1.2 Justification

Findings of the study will help identify the level of uptake of contraceptives among reproductive women in the Tamale Metropolis. It will help identify the reasons responsible for the low utilization in the region and help target interventions and policies.

This study will also add to the few existing literature and further serve as the basis for other studies to be conducted in other Regions.

More importantly, the study's recommendations will go a long way to strengthen institutions and guide policies towards increasing the prevalence of contraceptive so as to enhance Ghana's chances of meeting the post-MDG goals on reproductive health.

## 1.3 General Objective

The general objective of this study is to assess factors that influence contraceptive uptake among reproductive women in the Tamale Metropolis.

## 1.4 Specific Objectives:

i. To determine the prevalence of contraceptive use among reproductive women

ii. To determine the socio-demographic and socio economic factors that influence contraceptive uptake.

iii. To determine health provider related factors that influence contraceptive uptake

iv. To determine socio-cultural beliefs regarding contraceptive uptake.

## 1.5 Research questions

The following are research questions.

i. What is the prevalence of contraceptive use among reproductive women in the Tamale Metropolis?

ii. What are the socio-demographic and socio-economic factors that influence contraceptive uptake in the Metropolis?

iii. What are the health provider related factors that influence contraceptive uptake in the Metropolis?

iv. What are the socio-cultural beliefs regarding contraceptive uptake in the Tamale Metropolis?

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

The National Population Policy of Ghana set a target to reach a contraceptive prevalence rate of 15% by the year 2000, 28% by the year 2010 and to 50% by the year 2015. Between the years 1998 and 2003, Ghana saw an increase in total Contraceptive Prevalence Rate (CPR) (including modern and traditional methods), reaching 26 percent. During the most recent period between 2003 and 2008, however, total CPR decreased two points to 24 percent (USAID deliver project, 2011). Contraceptive prevalence has been very low in Ghana especially in the Northern Region which has the lowest CPR of about 5.9 % in the country (USAID deliver project, 2011).

## 2.1 Prevalence of Contraceptive Use among Reproductive Women

Contraception is an important aspect of reproductive health care for women, their partners, and their health care providers (Black et al., 2009). Contraceptive prevalence is defined as the percentage of women of reproductive age (15-49 yrs.) who are (or whose partners) use any method of contraception at a given point in time (WHO, 2013). It is usually calculated for married women of reproductive age, but sometimes for other base population, such as all women of reproductive age at risk of pregnancy. It indicates the extent of people's conscious efforts and capabilities to control their fertility. According to the United Nations, 63% of partnered, reproductive-aged women worldwide, representing about 740 million couples, practice some form of contraception. Almost 90% of them employ modern methods, which include oral contraception ("the pill"), condoms, injections, intrauterine devices (IUDs), and sterilization (UN, 2009). In 2013, the use of modern contraceptive methods in the least developed countries was estimated at around 38%

among women of reproductive age who are married or in union, and a further 23% of such women have an unmet need for family planning (World Development Indicators, 2013).

In sub-Saharan Africa, 23% of married women are using family planning, 18 % with a modern method and 5% with a traditional method. However, an even larger percentage of women, 25 % report having an "unmet need," meaning that they would prefer to stop having children or delay their next birth, but are not using any method of family planning(Harries et al., 2009) A study among 3253 Canadian women on contraceptive use in 2006 showed that, out of 2751 women who had vaginal intercourse in the previous six months and were not attempting to conceive 15% of the women never used contraception (Black et al., 2009).

In another study on determinants of modern contraceptive use among currently married women of reproductive age, it was found that modern contraceptive prevalence rate among currently married women was 46.9% (Mohammed et al, 2014). The Ghana Demographic and Health Survey in 2008 estimated that contraceptive usage among married women decreased from 19% to 17% translating into 123,000 women at risk of unintended pregnancies.

It is observed that in sub-Saharan Africa, 67% of married adolescent women who want to avoid pregnancy for at least the next two years are not using any method, and 12% are using traditional methods (IPPF, 2010) which are often unreliable. A study on prevalence of contraceptive use among women of reproductive age in Calabar, Nigeria, revealed that a greater proportion (78.4%) of the respondents were not currently using any contraceptive and the prevalence of contraceptive use was 21.6% (Eko et al, 2013). This indicates that a greater number of such women are at risk of unintended pregnancies and its attendant consequences. Similarly, a study on contraceptive use among women of reproductive age in Kenyan city slums revealed low usage of contraceptives

(51%) compared to the national level (Okech et al., 2011). In a similar study on geographical variation and factors influencing modern contraceptive use in Ethiopia, it indicated contraceptive prevalence of 27.3% with variation in residential status (urban 49.5%, rural 22.5%) (Lakew *et al.*, 2013). In Southern Africa, where the contraceptive use is 58%, almost exclusively of modern methods, unmet need for family planning is relatively low 16 %. In Western Africa, in contrast, only 8 % of women use modern family planning, 5% use traditional methods, and the unmet need is 23% (Gribble & Haffey, 2008).

It is however observed that, 62% of married women in developing countries practice modern contraception (Creanga *et al.*, 2011). Similarly, a study by Kayongo ( 2013) found a big proportion (62%) of respondents to have reported using modern contraception in the Busia district of Uganda. It was also reported in another study that, almost 51% of the adolescent respondents reported that they were using contraceptives (Ramathuba, Khoza, & Netshikweta, 2012).

According to the UN 2009 report, nine out of every 10 contraceptive users in the world rely on modern methods, with the developed countries relying more commonly on short-acting and reversible methods whereas longer-acting and highly effective clinical methods are used more frequently in the developing countries (UN, 2009). The UN report further observed that in the developed countries as a whole, the most commonly used methods are the pill (18 per cent prevalence) and the male condom (16 percent).By contrast, in developing countries the methods with the highest prevalence were female sterilization (22%) and the IUD (15%), accounting together for 61 per cent of overall contraceptive use. However, in the world as a whole, female sterilization is the most commonly used method of contraception, being the method selected by 20 per cent of women aged 15 to 49 who are married or in union (UN, 2009).

The type of contraceptive used may therefore vary depending on the intention and the geographical location of the user. In a study among reproductive women in Ethiopia, Injectable contraceptives were the most frequently used methods (62.9%), followed by intrauterine device (16.8%), pills (14%), Norplant (4.3%), male condom (1.2%) and female sterilization (0.8%) (Mohammed et al., 2014). In a similar study in southern Nigeria, a handful of the respondents who were using contraceptive methods, used the male condom (29.3%) followed by the pills (21.7%) (Eko et al., 2013). Among 2341 Canadian women who used contraception, the most frequently used methods were condoms (54.3%), oral contraceptives (43.7%), withdrawal (11.6%), and male/female sterilization, (13.4%) (Black et al., 2009.). On the contrary, condom was the most used method at 71.7%, followed by Depo-Provera at 31.8% in related studies (Kayongo, 2013). Similarly, the prevalence of contraceptive use was 54.8% with the condom (46.7%) and the pill (28.0%) being the two most frequently used methods (Saurina, Vall-llosera, & Saez, 2012). In another study, those who were using contraceptives, 29% used condoms, 9% the injection, 1% female condom, and 3% the pill with preferences of contraceptives ranging from 60% preferring the condoms to 19% who preferred the injection and 5% contraceptive pills (Ramathuba et al., 2012).

## 2.2 Socio Demographic and Socio Economic Factors That Influence Contraceptive Uptake

Research around the world has found that many factors affect contraceptive uptake. In a national survey of Kuwaiti women,(Rahayu et al., 2009),found that women's age, parity, educational level, and residence in urban areas were significantly and positively associated with contraceptive uptake.

Socio-economic factors are important determining factors for contraceptive uptake. These socioeconomic factors include educational status, level of wealth and place of residence. Studies have found that, use of contraceptive services is varied in terms of demographic and socioeconomic factors of the woman and also the woman's perception in terms of the facility/provider factors such as quality, friendliness of staff and promotion (Okech, *et al*., 2011). Nearly everywhere in the world, wealthier women are more likely to use modern contraceptives than poorer women. The disparities in use between rich and poor are most pronounced in countries with low overall contraceptive use (Eko *et al*., 2013).

Global health has improved considerably over the last four decades, but everywhere the health status of the poor compares unfavorably with that of the more affluent sectors of society (Creanga, *et al.,* 2011). Parallel disparities in fertility and in contraceptive use are found between poor and wealthy countries (Creanga *et al*., 2011). In Africa, one in 26 women of reproductive age die from a maternal cause, as opposed to one in 9400 in Europe (Population Reference Bureau, 2009, cited in Creanga et al., 2011). This gap between the rich and the poor in the use of contraception has persisted despite general global improvements in socioeconomic status and the expansion of family planning services(Gakidou & Vayena, 2007).

It is observed that all adverse family planning outcomes - unintended pregnancy, unintended births, abortions and teen pregnancies - occur more commonly among minority and low socioeconomic status (SES) women (Dehlendorf, Rodriguez, Levy, Borrero, & Steinauer, 2010).( Dehlendorf et al, 2010) further studies observed that in the United States, rates of unintended pregnancy (including both mistimed and undesired pregnancies), unintended birth, abortion, and adolescent pregnancy differ across racial, ethnic, and socioeconomic lines.

Also, it is observed that in less developed countries modern contraceptive methods are used by only 43% of women of reproductive age, and a wide gap in use is seen between the highest and lowest wealth quintiles (52% versus 35%, respectively) (Population Reference Bureau, 2009, cited in Creanga et al., 2011). In addition, Lakew et al. (2013) in their study found that, wealthy women had two times higher odds of using modern contraceptives than poor married women, however, women who had worked or been employed had a 30% lower odds of using modern contraceptives compared to married women who had no employment history. Also, Okech et al. (2011) observed that factors including the woman's income level, proximity to the provider and the religious background of the woman influence contraceptive use. The highest (58%) use of contraceptives was reported among women in formal employment (Michael, 2012) placing further emphasis on the importance of economic standing of women on contraceptive use.

Again in a related study, Michael (2012) found that 35% of women in stable marital relations reported to be using contraceptive methods. The contraceptive method used was also related to having occasional rather than steady sexual partners (more condom use), lower educational level (less oral contraceptive use) and frequent church attendance (greater use of condoms and periodic abstinence)(Oddens & Lehert, 1997).In their study on determinants of contraceptive use among reproductive age women, Mohammed *et al*. (2014) found that the need for more children, husband approve, couple's discussion about family planning issues were influential on contraceptive use. Similarly, a woman who reported her husband/partner usually made the decision about her healthcare was 19% less likely to report an intention to use contraceptives than a woman who reported that she herself or jointly with her husband/partner made the decision (AOR = 0.81, 95% CI 0.71- 0.92),(Mboane & Bhatta, 2015). Inter-spousal communication about family planning, and

husband disapproval of family planning services were found to have positive significant effects on contraceptive uptake (Choge, 2013).

Education is an important socio economic factors that is said to widely influence contraceptive use. Educated women had better odds of using modern contraceptive methods than uneducated married women (Lakew et al., 2013).The use of family planning methods is positively related to a higher level of education. A study in Catalonia, Spain indicates that those factors which most of the time influence the use of family planning methods are level of education (30.59% and 39.29% more likelihood) and having children over 14 (35.35% more likelihood), (Saurina *et al.*, 2012). Educational level was also found to positively influence contraceptive use in a related studies (Michael, 2012)

Education tends to increase the age at first marriage, thereby decreasing the number of years that can be devoted to child bearing (Akmam, 2002). Similarly in five African countries, women with a secondary education or higher were more likely to using contraception than were women with no education (Stephenson et al., 2007) .

Place of residence is another factor found to influence contraceptive use among married women. Married women who lived in rural areas had 30% lower odds of using modern contraceptives than urban married women (Lakew et al., 2013).

The socio-demographic characteristics of age and religion were found to influence contraceptive use, age had an inverse association with use of modern contraceptive methods, or in other words older married women had lower odds of using modern contraceptive methods than younger married women. Muslim married women had 30% lesser odds of using modern contraceptive methods than Christians (Lakew et al., 2013). Similarly, the age of women and their religious

affiliation as well as socio demographic characteristics were observed to influence contraceptive uptake and the age group between 15-19 years old had positive significant effect on contraceptive use. Marital status was also found to have significance on contraceptive uptake (Choge, 2013). The study found that married women had negative significant association with contraceptive use than unmarried women.

Exposure to contraceptive information through the media could also influence current contraceptive use. Studies in Kenya, Malawi, Burkina Faso, and Ivory Coast, revealed that women who reported being exposed to family planning information in the media were more likely to be using contraception (Stephenson *et al*., 2007). In the East African countries, women with no children were less likely to use modern contraception than were women with 3 or 4 children (Stephenson *et al*., 2007).

A study by Ojakaa (2008) in Kenya found that numbers of women not using contraception were higher among women with a primary education than among women with no education, but the numbers then decreased among women with secondary or higher education. Moreover, total non-users also increased with the number of living children (Ojakaa, 2008). He also found that the lower the economic status of the household, the higher the non-users.

In addition, in Pakistan, women's education also played an important role in relation to contraceptive use, as literate women were more likely to use contraceptives than illiterate women(Ahmad *et al.*, 2007) The husband's view on family planning also has been consistently found to be a significant factor affecting contraceptive use in several countries including Indonesia, Sub-Saharan Africa, the Philippines, India, Nepal, Pakistan, Kuwait and Mali (Shah *et al*, 2004, Kaggwa *et al*, 2008).

### 2.3 Health Facility /Provider Related Factors That Influence Contraceptive Uptake

Contraceptive uptake could also be influenced by factors related to the provider of the contraceptive services. A comparative study between United Kingdom and Germany found some disparities in the choice of contraceptives. The study concluded that differences between the countries suggested that the choice of contraceptive method was influenced by health care policy, the organization of the relevant services and differential provider preferences (Oddens & Lehert, 1997). In another study, various factors were observed to account for low use of contraceptive services among reproductive women. These factors included quality of the services, friendliness of the staff administering the services and the woman's knowledge about contraceptive services (Okech, *et al.*, 2011). In a related study, health worker attitude was said to influence contraceptive access to adolescents. To improve contraceptive uptake, 42% of respondents felt that health care providers needed to display a positive attitude towards them; they should be caring, patient, friendly, and improve communication (Ramathuba *el al.*, 2012).

Studies have indicated that supply and demand factors have profound influence in utilization of family planning services which includes use of contraceptive methods (Mwaikambo et al., 2011). Accessibility, reliability and responsiveness to women needs of contraceptives were also a predictor in the uptake of contraceptive methods by Iranian women(Mackenzie et al., 2013).

A study in Ethiopia showed that, problem of availability and accessibility influenced the use of contraceptive methods(Gizaw & Regassa, 2011). This was evident in Iranian studies where women using contraceptive methods were dissatisfied with monthly provision of contraceptives and these led to seeking services from private outlets (Mackenzie et al 2013).

From the UNPF report it was observed that governments and service providers were aware of the importance of giving information as part of family planning service delivery. Service providers

are being trained to perform this function but such training did not seem to have the desired effect. Observation of consultations revealed that family planning clients often did not receive complete, accurate information about options available to them. When a method was selected, clients were only told how to use it and when to return for re-supply and/or check-up. Possible side-effects were rarely mentioned. No information was given during consultations regarding sexually transmitted diseases and HIV/AIDS and little or nothing of the relevant social situation of the client was discussed (Mackenzie et al 2013).

The central goals of demand-side family planning interventions include changing women's knowledge, men's knowledge, couples' knowledge, attitudes about contraceptive methods and increasing their knowledge of contraceptive sources and use of family planning to meet their fertility desires. Communication through mass media (radio, television, or print) is an appealing strategy for the promotion of family planning because of its potential for expansion and its ability to address (in entertaining or informative way) issues that in many settings are culturally taboo methods (Mwaikambo *et al.*, 2011).

### 2.4 Socio-cultural beliefs and practices regarding contraceptive uptake

Socio-cultural beliefs and practices could also influence contraceptive use. In many parts of the world, women do not have the decision making power, physical mobility, or access to material resources to seek family planning services, their use of contraceptives is often strongly influenced by spousal or familial support of, or opposition to family planning (Kayongo, 2013). A study found factors to be significantly associated with contraceptive uptake were: traditional cultural beliefs, and support from husband/partners while religion, decision maker on desired number of children

in the family were not found to be significantly associated with the use of contraceptive methods (Michael, 2012).

According to family planning perspective Canada 2000, Religion is not found to be the principal influence on the decision to use contraception within North American Christian populations. Canadian statistics demonstrate that the role of religion in determining contraceptive usage between denominations has greatly disappeared; however, contraception uptake is highest among Canadians with no religious affiliation. Family sizes between Protestants and Catholics in the United States are also found to be comparable. Within the US Latina population, religion is found to influence perceptions of ideal family size but did not negatively affect contraceptive practice. Socioeconomic factors, such as low education levels, were found to influence family size far more than religious factors.

In Israel, prevalence of contraceptive uptake was reported to decrease with increasing religiosity among married Jewish women. Contraceptive method choices, however, were largely influenced by factors unrelated to religious doctrine. Once the decision to use contraception had been made, contraceptive method choices were largely influenced by factors such as suitability of the method to the intended fertility control needs, peer influences, number of current children, age of the woman, and education of the husband and wife (Srikanthan & Reid, 2008). Despite the religious permissibility of contraception, not all Hindu women utilize contraceptive methods. Lack of family planning success in India among Hindu women has been attributed to cultural resistance, sexism, and lack of female empowerment (Srikanthan & Reid, 2008).

The majority of Islamic jurists indicate that family planning is not forbidden. Muslim opinion regarding the further classification of contraception ranges from permissible to disapproved

(Srikanthan & Reid, 2008) Some fundamentalist Muslims insist that any form of contraception violates God's intentions (Nisar, 2012). According to, (Srikanthan & Reid, 2008) a woman's ability and willingness to utilize contraception is affected by whether she identifies with orthodox, traditional, or liberal interpretations of her religion.

In a study on socio-economic and demographic factors affecting contraceptive uptake in Malawi, the results showed that the major determinants of contraceptive uptake are age of respondents' and partners' approval of family planning, family planning discussion with partner, number of living children, work status, education and visit to a health center (Palamuleni, 2013).

A study in six African countries revealed that fecund women and women whose husbands approved of contraception were more likely to be using modern contraception in all 6 study countries. Observing further that, women who reported frequent discussion of family planning with their partners were more likely to be using contraception than were women who reported they never discussed family planning (Stephenson et al., 2007).

Level of approval of family planning among women in the community was another most significant factor for contraceptive use in four African countries: Kenya, Malawi, Tanzania, and Ghana. This indicates the importance family and friends play on contraceptive uptake.

Contraceptive uptake can be influenced by several other factors. A study on knowledge, attitudes and practice of contraceptives found that 60% of the respondents were not utilizing the health care services for contraceptives, giving reasons such as that they were too far away (9%), culturally not permitted (12%), shy (21%), services not available (9%), and the staff were not friendly (16%) (Ramathuba, 2012). Shyness to access contraceptive services could be fostered by the cultural non permissiveness in women, particularly among young women. This suggest that adolescents are dissatisfied with the type of service provided, which can hamper uptake of contraceptives.

# CHAPTER THREE

# METHODOLOGY

## 3.1 Study design

The study was a cross sectional household survey using both quantitative and qualitative data collection approaches to determine contraceptive uptake amongst reproductive women in the Tamale Metropolis. A mixed methods design necessitates that qualitative and quantitative data hold independent research purposes, and that the qualitative and quantitative components work together to mutually strengthen the research findings from each source (Creswell, 2009). Quantitative studies are often strong in terms of generalizability, precision, and control over extraneous variables while the strength of qualitative research lies in its flexibility and it's potential to yield insights into the true nature of complex phenomena through the wealth of in – depth information.(Carson, 2005)

## 3.2 Study area

The study was conducted in the Tamale Metropolis of Northern Region. Tamale Metropolis is one of the fastest growing city in West Africa and the third in Ghana after Kumasi and Accra (Danso-abbeam, 2014). The Metropolis is one of the six Metropolitan Assemblies in the country and the only Metropolis in the three Northern Regions of Ghana. The capital of the Metropolis is the capital of the Northern Region. It lies between latitude 9.16° and 9.34° North and longitudes 00.36°and 00.57. The Tamale Metropolis is located approximately 180 metres above sea level. The Metropolis is one of the 26 districts in the Northern Region. It is located in the central part of the Northern Region and shares boundaries with five other districts namely the Savelugu- Nanton municipality to the North, Mion to the East, Tolon-Kumbungu to the West, Central Gonja to the

South West and East Ganja to the South. The Metropolis has three (3) sub metros; Tamale Central, Tamale South and Tamale North sub metros.The population of Tamale Metropolis, according to the 2010 Population and Housing Census, is 233,252 representing 9.4 percent of the region's population with males constituting 49.7% and females represent 50.3% (GSS, 2014). The proportion of the population living in urban localities (80.8%) is higher than that living in rural localities (19.1%) of the metropolis (GSS, 2014). The Metropolis is a Cosmopolitan area with Dagombas as the majority. Other minority ethnic groupings are Gonjas', Mampurisi, Akan, Dagaabas, and tribes from the Upper East Region. Apart from Metropolitan Tamale where there is ethnic diversity, almost all people in the surrounding villages are Dagombas. Even in the Metropolis, the Dagombas constitute about 80% of the total population. On the religious front, the people in the Metropolis are mostly Muslims, almost 90% of ethnic Dagombas are Muslims. Christianity on the other hand, is mostly practiced by non-Dagomba ethnic groups (Ocansey Michael, 2014). It is common of the Dagomba people to have large families, this practice was to get more people to help on family farms. It is considered a great pride among the Dagombas to have more than one wife and the number of children one has is one of the indices for measuring one's wealth. The practice of polygamy is therefore common among the Dagombas in the Metropolis. According to Ghana Statistical Service (2014), the Total Fertility Rate for the Metropolis is slightly lower (2.8), than the Northern Regional Fertility rate of 3.5.

The proportion of households who live in extended household structure (head, spouse(s), children and head's relatives) constitute the largest proportion (46.1%) than that of any other type of household structure. Nuclear households (head, spouse(s) and children) constitute only 19.5 % of households in the Metropolis. There are more people (48.6%), 12 years and older, who are married than those who have never married (44.2%) and the highest percentages (57.5% and 23.3%

respectively) of married persons either had no education or attained only basic education. About 31% of persons who have never married are employed, compared to 4.8% who are unemployed. The largest proportion (63.8%) of the married are economically not active. However, about 63.3% of the population aged 15 years and older in the metropolis are economically active and 36.7% are economically not active. The highest proportion (60.6%) of the employed are self-employed. Higher proportion of females are self- employed without employees (70.5%), compared to 51.3% for males (GSS, 2014). Of the population, 11 years and above, 60.1% are literates and 39.9% are non-literates with the proportion of literate males being higher (69.2%) than that of females (51.1%).

The Municipality has a number of hospitals and clinics across its length and breadth including the Tamale Teaching Hospital, the Tamale West and Central hospitals, the Seventh Day Adventist (S.D.A) Hospital and several other clinics and health centers. Contraceptive services are provided by all the health facilities in the Metropolis including Pharmacy shops Chemical sellers and drug peddlers

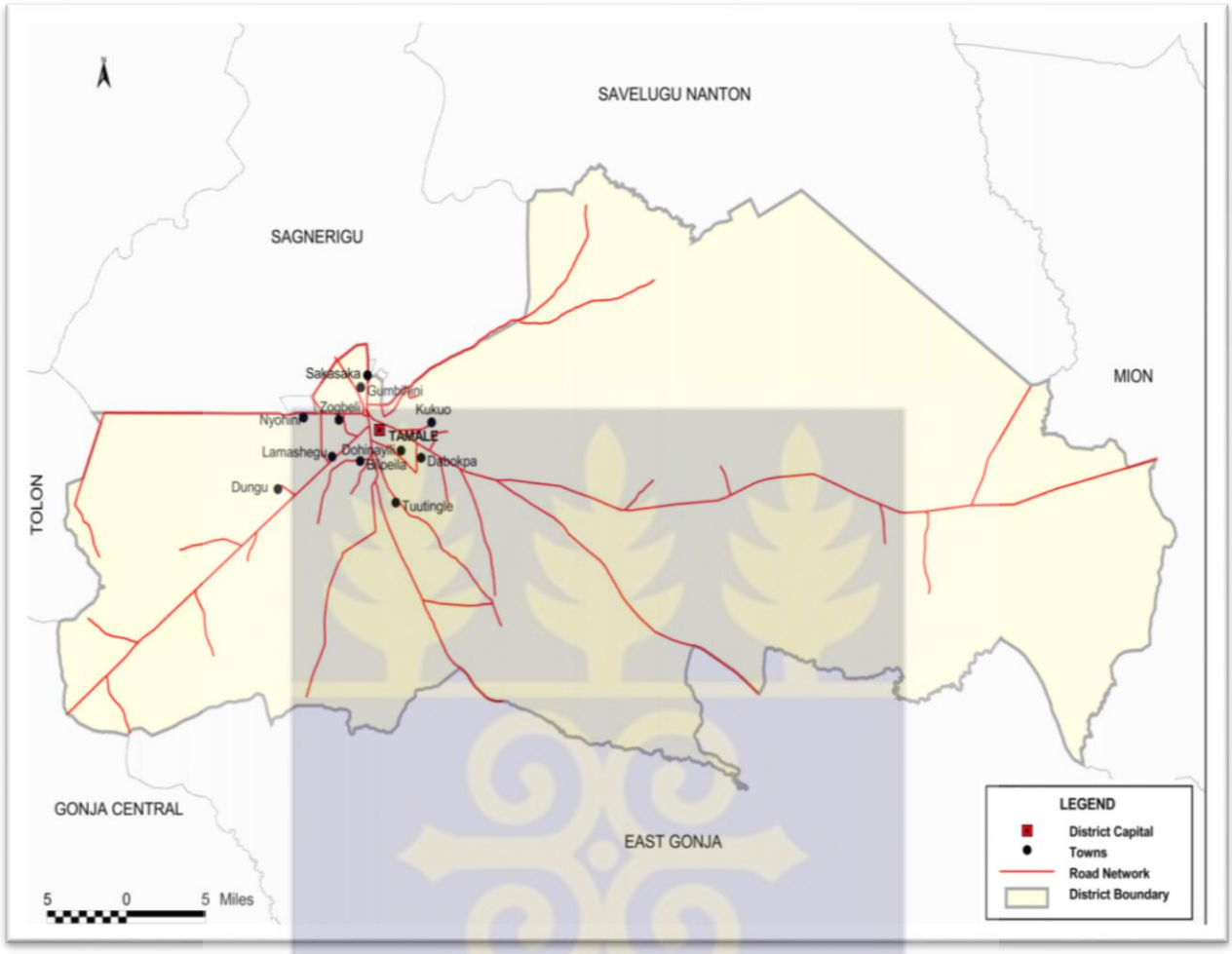


**Figure 2. Map of Tamale Metropolis**

**Source**: Ghana statistical service GIS

### 3.3 Study Population

The study population were all reproductive women in the Tamale Metropolis between the ages of 15 and 49 years adolescents, community and opinion leaders in the Metropolis.

### 3.4 Sample size

An estimated sample size of 475 and 25 EAs was determined using Modified Epi Info version 7 sampling method with prevalence of contraceptive use among married women in Ghana of 34%, at 95% confidence interval with 5% margin of error and a design effect of 1.25. With approximately 10% non-response.

### 3.5 Sampling

Both quantitative and qualitative data collection approaches were used in the study.

#### 3.5.1Quantitative

Out of a total of 544 Enumeration Areas (EAs)/ Clusters in the Tamale Metropolis 25 EAs constituted the cluster (GSS, 2010) These EAs were stratified into urban and rural strata as classified by GSS. The 25 EAs/clusters were then drawn by simple random sampling, where all the names of the EAs were written and folded on pieces of papers. The folded papers were put into a basket and vigorously mixed together after which the 25EAs were picked one after the other. A total of 475 households from the 25 EAs/ Clusters were sampled in the entire study. In each cluster, 19 households were randomly selected and eligible women randomly selected and interviewed. Research Assistants visited the homes of the selected clusters each morning from the hours of 6:00am to 10:00am in order to meet eligible women before they leave for work. From each randomly selected household, all household members were listed before eligible participants were randomly selected and interviewed following signing of a consent form. Each participant was

made comfortable by siting during the interviews. To ensure confidentiality, interviews were conducted away from other household members.

### 3.5.2 Qualitative

A total of nine (9) Focused Group Discussions (FGDs) were held to collect the qualitative data from the selected Enumeration Areas .Selection of EAs for the FGDs was randomly done taking into consideration the rural urban classification of the EAs by the GSS from the three sub metros thus Tamale south, Tamale north, and Tamale central. In each sub metro, three (3) target groups were used including mothers, adolescents and opinion leaders. Six (6) EAs were randomly selected from urban and three (3) from rural communities with the following compositions.

**Urban Communities**

- Two elderly women group
- Two opinion leaders group
- Two adolescent groups

**Rural Communities**

- One elderly women group
- One opinion leaders group
- One adolescent group

More FGDs were held in urban communities because Tamale Metropolis is largely urban thus over 80% .Participants were purposively selected for the discussions after they have consented to take part in the study. Each of all the nine (9) FGDs were held between the hours of 5pm to 6pm. Only one FGD was held each day. On average, each FGD was made up of 10 participants and lasted for

about 45minutes to 1hour. One research Assistant moderated the FGD sessions while the Principal Investigator (PI) took notes of important issues that were raised during the discussion. An audio recorder was used to record each of the discussion sessions. During the discussion, each participant was given the opportunity to contribute to a particular topic before proceeding to another themes.

### 3.6 Inclusion criteria

Woman between the ages of 15- 49 who had lived within the Tamale Metropolis for 1 year and above ,community and opinion leaders as well as adolescent who have lived in the area for a year and above and have consented to participate.

### 3.7 Exclusion criteria

Women who have had hysterectomy, women who had visited or lived less than one year in the area were excluded from the study. The reason for excluding women who had had hysterectomy from the study is that such women will not be using contraceptives because of the surgery. Also participants who had lived less than one year in the Metropolis were excluded from the study to ensure that the results of contraceptive prevalence reflects the population of the Tamale Metropolis.

### 3.8 Data Collection tools /Instrument

Quantitative data was gathered through structured questionnaires that was designed in accordance with the research objectives. Closed and open ended questions were adopted and used to elicited information on the basic demographic characteristics including age, education and factors for contraceptive uptake, while qualitative data was obtained through Focus Group Discussions (FGDs) designed according to the following themes.

- Knowledge on contraception
- Cultural influence on contraceptive use
- Partner involvement in contraception
- Partner involvement in child making decisions
- Availability and accessibility of contraceptives
- Choice of contraceptive service providers

### 3.9 Quality Control

To ensure the questions were clear, understandable and to prevent ambiguities and irregularities the questionnaire was translated from English to Dagbani and back to English by language expert proficient in both English and Dagbani. Field Assistants were also trained by the investigator to ensure they understood their tasks. Training of field staff was undertaken in a workshop. Environment and adequate time was allocated for hands-on demonstrations such as role-plays. During the training the research Assistants were introduced to the rational of the study, the selection of household and eligible participants for the study. They were also taken through the whole questionnaire and the essence of each question explained to them. Techniques for introducing themselves and establishing rapport to get good responses from participants was explained to the full understanding of each Research Assistant.

#### 3.9.1 Pre-testing

The questions were pretested in a community at Savulugu district that was not selected for the study.

Savulugu was chosen for the pretest because the people within that community share similar characteristics as the people of the Tamale Metropolis.

### 3.10 Study variables

#### 3.10.1 Dependent variables

- Contraceptive uptake

#### 3.10.2 Independent variables

**Socio-Demographic / socio economic factors**

- Age
- Education
- Occupation
- Religion
- Marital status
- Residence
- Household assets

**Health facility factors**

- Attitude of service provider
- Environment of the service providers
- Education by service providers
- Availability of product
- Accessibility of product

- Cost of contraceptive service
- Distance to service providers

**Cultural /Religious factor**

- Knowledge on contraception
- Cultural/ religious beliefs on contraception
- Partner support and involvement in contraceptive decisions
- Child making decision.
- Family size preference.

### 3.11.1 Quantitative Data

Data was entered into Microsoft excel version 2013 and exported to Stata version 13 for cleaning and analysis including frequencies and relative frequencies. Factors influencing contraceptive uptake were determined using binary logistic regression and those that were significant at p-value less than 0.05 were put in the multiple logistic regressions models. Socio-economic status of household were determined using the principal component analysis (PCA). In this strategy, all household assets such as television sets, motorbikes, type of housing, were some of the household assets that were considered in the model for the PCA. Household assets with eigenvalue above one were then put together to generate the wealth score for each household. Based on the wealth scores, households were then put into four groups; poorer, poor average and richer. The results were presented as Odds Ratios (OR) and 95% Confidence Intervals for the analysis.

### 3.11.2 Qualitative Data

Data collection was in the local language (Dagbani) and was first transcribed into English by two independent people. The translations were compared for consistency. Inconsistencies were discussed by the translators with a third person serving as a mediator. Qualitative narrative data in English were then entered into a word processor (Microsoft Word) and imported in a format that allows coding of the interview transcripts in Nvivo 10, a computer programme for textual analysis of large qualitative data sets. Thematic analysis was employed in analyzing the data. Thematic data analysis process consists of three interrelated stages namely data reduction, data display and data conclusion-drawing/verifying (Miles & Huberman, 1994). Guest, MacQueen and Namey (2012) also summarizes the process of thematic analysis as consisting of reading through textual data, identifying themes in the data, coding those themes, and then interpreting the structure and content of the themes. The results was then presented in narrative and supported with illustrative quotes from respondents.

### 3.12 Ethical Consideration

The study was approved by the Ethical Review Committee of the Ghana Health Service with ID number GHS-ERC: 19/02/15 before commencement of the study. Permission was also sought from the metropolitan assembly and chiefs of communities that were involved in the study. Consent was also sought from all participants. They were assured of their privacy and confidentiality. Participants were told they have the right to opt out of the study at any time without any penalty. For security and safety, gathered data (soft copies have been saved on a hard drive with a password) while hard copies have been kept in a locked cupboard with access to only the principal investigator (PI) and the study team. Recordings of interviews will be destroyed after

5years when the PI will have finished and disseminated the results and all necessary actions taken by then.

Although participants were not compensated or paid for participating in the research, their inputs have been recognized and appreciated. Participants will benefit from this study if findings are formulated into policies that could benefit them both directly and indirectly. For the focus group discussions cola nuts were sent to the chief palace of each community as part of the tradition of the area to announce our presence and as part of community entry requirements. The PI has no conflict of interest whatsoever in this study. It is purely for academic purpose.

For qualitative data, participants were interviewed at a designated location of their choice which was convenient to all. A maximum of 1hour was spent on each FGD.

For quantitative data, participants were interviewed in their homes at a time convenient to them.

Questions that were asked for both qualitative and quantitative data were not harmful but could cause some discomfort. Participants were told they had the right to answer or ignore such sensitive questions. Sensitive questions were however asked in a way that minimized such discomfort as research Assistants were properly trained on that. FGDs were conducted in the local language (Dagbani). For participants who were less than 18years, consent was obtained from their parents/guardians before their participation. They were also made to give an assent before they were interviewed.

# CHAPTER FOUR

## RESULTS

The study assessed factors affecting contraceptive uptake among women of reproductive age in the Tamale Metropolis. A total of 475 reproductive women between the ages of 15 to 49yrs were interviewed using a structured questionnaire as well as Nine FGDs involving opinion leaders, elderly women and adolescents.

**Table 1a: Socio-Demographic and Socio- Economic Characteristics of Reproductive Women (15-49) in Tamale Metropolis, February 2015.**

| Characteristic | Frequencies | Percentages |
|---|---|---|
| **Residence** | | |
| Urban | 322 | 67.8 |
| Rural | 153 | 32.2 |
| **Total** | **475** | **100** |
| **Age group (Years)** | | |
| ≤19 | 83 | 17.5 |
| 20-29 | 234 | 49.3 |
| 30-39 | 116 | 24.4 |
| 40-49 | 42 | 8.8 |
| **Total** | **475** | **100.0** |
| **Occupation** | | |
| Employed( formal) | 98 | 20.6 |
| Student | 105 | 22.1 |
| Unemployed | 102 | 21.5 |
| Self employed | 170 | 35.8 |
| **Total** | **475** | **100.0** |
| **Education** | | |
| None | 165 | 34.7 |
| Primary | 186 | 39.2 |
| SHS | 75 | 15.8 |
| Tertiary | 49 | 10.3 |
| **Total** | **475** | **100.0** |
| **Religion** | | |
| Islam | 422 | 88.8 |
| Protestant | 20 | 4.2 |
| Charismatic | 2 | 0.4 |
| Catholic | 18 | 3.8 |
| Other Christian | 7 | 1.5 |
| Traditional | 6 | 1.3 |
| **Total** | **475** | **100.0** |

**Table 1b: Socio-Demographic and Socio Economic Characteristics of Reproductive Women (15-49) in Tamale Metropolis, February 2015.**

| Characteristic | Frequency | Percentage |
|---|---|---|
| **Marital status** | | |
| Single | 150 | 31.6 |
| Married | 282 | 59.4 |
| Co-habiting | 18 | 3.8 |
| Divorced | 14 | 3.0 |
| Widowed | 11 | 2.3 |
| **Total** | **475** | **100.0** |
| **Number of Children** | | |
| 0 | 177 | 38.0 |
| 1 | 71 | 15.2 |
| 2 | 73 | 15.6 |
| 3 | 52 | 11.1 |
| ≥4 | 94 | 20.1 |
| **Total** | **467** | **100.0** |
| **Polygyny** | | |
| Yes | 119 | 36.6 |
| No | 206 | 63.4 |
| **Total** | **325** | **100.0** |
| **Socio Economic Factors** | | |
| Poorer | 40 | 8.5 |
| Poor | 205 | 44.0 |
| Average | 165 | 35.3 |
| Rich | 57 | 12.2 |
| **Total** | **467** | **100.0** |

Table 1a & 1b shows socio demographic and socio economic characteristics of study participants. Majority 234(49.3%) of the study participants were between the ages of 20-29years, while nearly nine percent (8.8%) were between the ages of 40-49years. Most respondents 322(67.8%) were resident in urban communities. Self-employed women had the highest frequency of 170(35.8%) while about one-fifth (20.6%) had some formal employment. Whereas a quarter (26.1%) had secondary or higher education, majority of the respondents had primary education (39.2%) as their highest level. Regarding marital status, majority of the respondents 282, (59.3%) were married, while 3.8 percent were co-habiting. In addition, majority 205(44.0%) of the participants were classified as poor under socio economic status with an additional 40(8.5%) classified as poorest.

**Table 2a: Socio-Demographic, Socio- Economic Factors and Contraceptive Uptake amongst Reproductive Women in Tamale Metropolis, February 2015.**

| Characteristics | N = 448 | Current contraceptive use | |
|---|---|---|---|
| | Yes | No | p- value |
| **Total** | 165 (36.8) | 283(63.2) | |
| **Residence** | | | |
| Urban | 123 (39.3) | 190(60.7) | |
| Rural | 42(31.1) | 93 (68.9) | 0.10 |
| **Age group (Year)** | | | |
| ≤19 | 25(32.9) | 51(67.1) | |
| 20-29 | 83(37.2) | 140(62.8) | 0.78 |
| 30-39 | 40(36.7) | 69(63.3) | |
| 40-49 | 17(42.5) | 23(57.5) | |
| **Education** | | | |
| None | 37(25.2) | 110(74.8) | |
| Primary | 64(36.0) | 114(64.0) | **<0.001** |
| SHS | 45(60.8) | 29(39.2.) | |
| Tertiary | 19(38.8) | 30(61.2) | |
| **Occupations** | | | |
| Employed | 31(36.9) | 53(63.1) | |
| Student | 47(46.1) | 55(53.9) | **<0.001** |
| Unemployed | 18(18.6) | 79(81.4) | |
| Self employed | 69(41.8) | 96(58.2) | |

**Table 2b: Socio-Demographic and Socio Economic Factors and Contraceptive Uptake amongst Reproductive Women (15-49) in Tamale Metropolis, February 2015.**

| Characteristic | Current Contraceptive uptake | | |
|---|---|---|---|
| | Yes | No | p-value |
| **Marital Status** | | | |
| Single | 64(44.8) | 79(55.2) | |
| Married | 91(34.3) | 174(65.7) | 0.07 |
| Co habiting | 6(33.3) | 12(66.7) | |
| Divorced | 3(25.0) | 9(75.0) | |
| Widowed | 1(10) | 9(90) | |
| **Polygyny** | | | |
| Yes | 37(34.3) | 71(65.7) | |
| No | 72(36.7) | 124(63.3) | 0.67 |
| **Religion** | | | |
| Islam | 135(34.0) | 262(66.0) | |
| Protestant | 9(50) | 9(50) | |
| Charismatic | 2(100) | 0(0) | |
| Catholic | 11(61.1) | 7(38.9) | **0.01** |
| Other Christian | 3(42.9) | 4(57.1) | |
| Traditional | 5(83.3) | 1( 16.7) | |
| **Number of Children** | | | |
| 0 | 62(37.1) | 105(62.9) | |
| 1 | 23(34.3) | 44(65.7) | |
| 2 | 21(30.0) | 49(70.0) | 0.59 |
| 3 | 22(43.1) | 29(56.9) | |
| ≥4 | 34(40.0) | 51(60.0) | |
| **Socio economic factors** | | | |
| Poorer | 9(27.3) | 24(72.7) | |
| Poor | 76(40.2) | 113(59.8) | 0.46 |
| Average | 60(36.8) | 103(63.2) | |
| Rich | 19(33.3) | 38(66.7) | |

Table 2a & 2b shows the prevalence of contractive uptake and the socio demographics and socio economic characteristics. The prevalence of total contraception uptake in the study was 36.8% (165 out of 448) with a higher proportion of respondents residing in urban communities (39.3%) compared with 31. 1% of their counterparts in rural communities. A higher proportion of those in the higher age group 40-49 (42.5%) are currently on contraception as against about 37 percent each of those in the 30-39 and 20-29 age groups. About 6 out of every 10 of the respondents with a secondary education (60.8%) were on contraception compared with about four in every 10 of their counterparts with a post-secondary education (38.8%). Also, higher proportions of respondents who were classified as average or poor reported taking up contraception compared with those in the richer or poorest categories. The results showed that education, occupation and religion were significantly associated with contraceptive use with p-values of <0.001and 0.01 respectively.

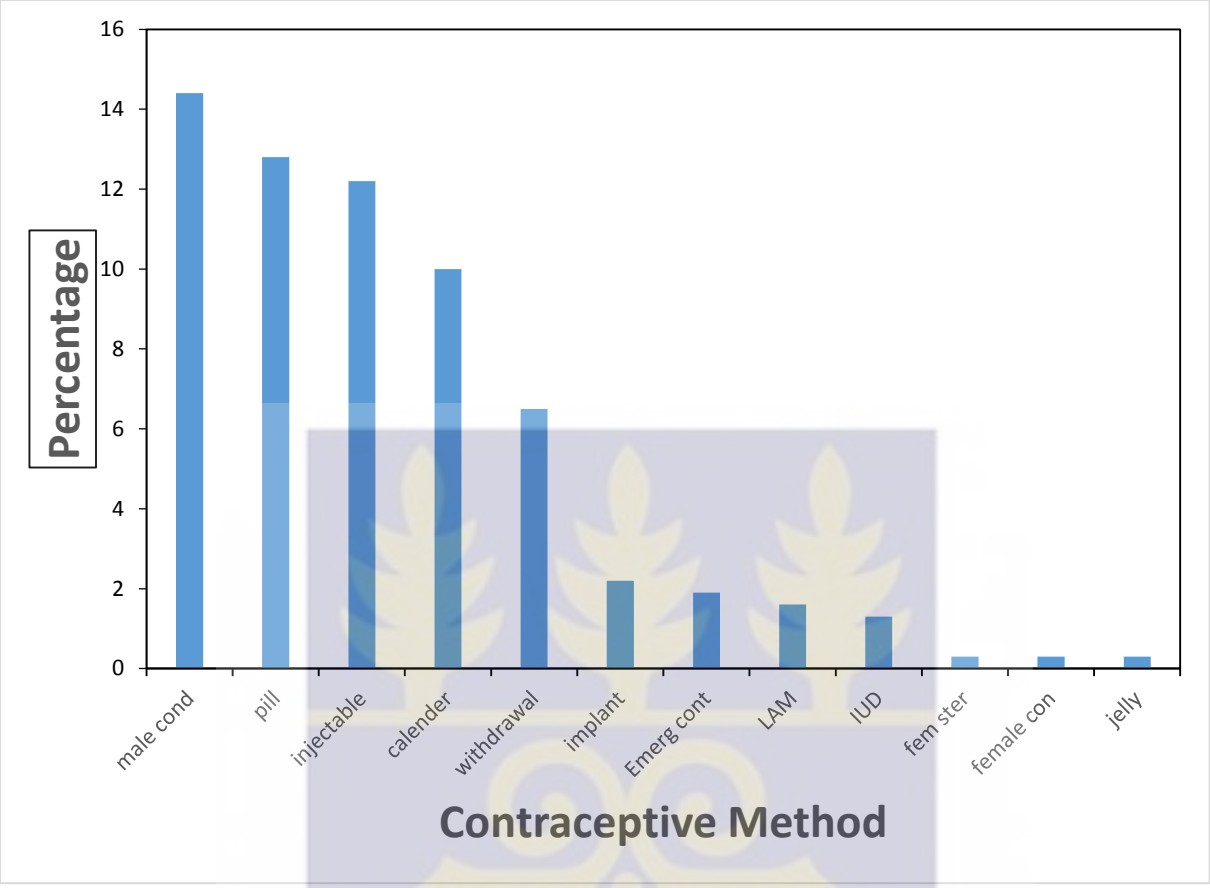


**Figure 3 Prevalence of specific Contraceptive Methods Used by Reproductive Women (15-49 years) Tamale, Metropolis. February 2015.**

Figure 3: shows prevalence of contraceptive uptake by the various methods. Male condom was the most commonly used 46 (14.4%), closely followed by pill 41 (12.8), injectable 39 (12.2%) and calendar 32 (10%). The use of long acting methods like the Intra Uterine Device (1.3%) and implants (2.2%) was found to be less prevalent among the study respondents as was locational amenorrhea method 5(1.6%).

**Table 3: Logistic regression analysis between Socio demographic characteristics of respondents and contraceptive uptake, Tamale Metropolis, February 2015.**

| Characteristic | N | COR(95%CI) | P-Value | AOR(95%CI) | P-Value |
|---|---|---|---|---|---|
| **Residence** | | | 0.10 | | |
| Urban | 322 | Ref | | | |
| Rural | 153 | 0.7 (0.5-1.1) | | | |
| **Age cat** | | | 0.78 | | |
| ≤19 | 83 | Ref | | | |
| 20-29 | 234 | 1.2 (0.7-2.1) | | | |
| 30-39 | 166 | 1.2 (0.6-2.2) | | | |
| 40-49 | 42 | 1.5 (0.7-3.3) | | | |
| **Education** | | | **<0.001** | | 0.10 |
| None | 165 | Ref | | | |
| Primary | 186 | **1.7 (1.1-2.7)** | | **1.7(0.8-3.7)** | |
| SHS | 75 | **4.6 (2.5-8.4)** | | **4.4 (1.6-12.4)** | |
| Tertiary | 49 | 1.9(0.9-3.7) | | 1.1(0.3-3.4) | |
| **Occupation** | | | **<0.001** | | 0.20 |
| Employed(formal) | 98 | Ref | | | |
| Student | 104 | 1.5 (0.8-2.6) | | 1.3(0.5-3.4) | |
| Unemployed | 102 | **0.4(0.2-0.8)** | | **0.3(0.1-0.8)** | |
| Self-employed | 170 | 1.2 (0.7-2.1) | | 1.9(0.9-4.1) | |
| **Marital Status** | | | 0.06 | | 0.60 |
| Married | 282 | Ref | | | |
| single | 150 | 1.5 (1.1-2.3) | | 2.1(0.8-5.2) | |
| Co habiting | 18 | 0.9 (0.3-2.6) | | 2.4(0.5-10.8) | |
| Divorce | 14 | 0.6 (0.2-2.4) | | 1.0(0.1-7.2) | |
| Widowed | 11 | 0.2 (0.1-1.7) | | 0.3(0.1-7.1) | |
| **Polygyny** | | | 0.67 | | |
| Yes | 199 | Ref | | | |
| No | 206 | 1.1 (0.7-1.8) | | | |
| **Religion** | | | **0.01** | | 0.28 |
| Islam | 422 | Ref | | | |
| Protestant | 20 | 1.9(0.8-5.0) | | 1.9(0.6-6.8) | |
| Charismatic | 2 | -- | - | -- | - |
| Catholic | 18 | **3.0 (1.2-8.0)** | | 1.3 (0.3-5.4) | |
| Other Christian | 7 | 1.5(0.3-6.6) | | 2.6((0.3-21.8) | |
| Other/traditional | 6 | 9.7(1.1-83.9) | | 0.9(0.5-13.8) | |
| **Number of Children** | | | 0.58 | | |
| 0 | 177 | Ref | | | |
| 1 | 79 | 0.9(0.4-1.6) | | | |
| 2 | 73 | 0.7(0.4-1.3) | | | |
| 3 | 52 | 1.3(0.7-2.4) | | | |
| ≥4 | 94 | 1.1 (0.7-1.9) | | | |
| **Socio-economic status** | | | 0.48 | | |
| Poorer | 40 | Ref | | | |
| Poor | 205 | 1.8(0.8-4.1) | | | |
| Average | 165 | 1.6(0.7-3.6) | | | |
| Rich | 57 | 1.3 (0.5-3.4) | | | |

Table 3 shows the associations between socio-demographics, socio economic characteristics and contraceptive uptake amongst reproductive women in Tamale Metropolis. The odds of women with primary and secondary education using contraceptives were 1.7 and 4.6 times the odds of no formal education [COR= 1.7(95% CI, 1.1-2.7)] and [COR= 4.6(95%Cl, 2.5-8.4)] respectively. In multivariate analysis secondary education remained significant with [AOR= 4.4(95% CI 1.6-12.4)] while primary education was not significant [AOR 1.7 (95% CI, 0.8-3.7).

On occupation, the odds of unemployed women using contraceptives was reduced 0.4 times [COR=0.4, (95% Cl, 0.2-0.8)] compared to employed women .In multivariate analysis it was still significance with [AORs = 0.3 (95% CI 0.1-0.8)]. Marital status, was also found to be significant, the odds of single women using contraceptives was increased 1.5 times [COR=1.5, (95% Cl, 1.1-2.3)] compared to married women. Respondents who were co-habiting, divorced or widowed had lower odds for contraceptive use. This was no longer significant after adjustment [AOR= 2.1 (95% Cl, 0.8-5.8).]. Religion also came out significant in univariate analysis. Catholic women were 3 times more likely to use contraceptives [COR= 3.0 (95% Cl 1.2-8.0)] compared to Muslim women as well as women practicing traditional religion [COR=9.7 (95% CI, 1.1-83.9)]. These were not significant after multivariate analysis [AOR=1.3, (95% Cl 0.3-5.4)], [AOR=0.9 (95%CI, 0.5-13.5)] respectively.

Socio- economic status of respondents using wealth quantiles was not significant as shown in the table 3, however contraceptive cost emerged at FGDs as the main economic factor that affect contraceptive use in this study. To respondent, most especially adolescent, condom was the main preferred method. However, there was the believed that good condoms were quite expensive.

*"It looks like the condoms are too soft as adolescents we are comfortable with the condom but mostly it burst in the process so if the manufacturers can be spoken to. Also the good ones are too expensive for as adolescents e.g. fiesta condom is 3 for 5.00cedis which is too expensive for students like us. At least the price should be cheap like paracetamol"*-(Male, FGD, Adolescents Group, Urban)

*"I think what will discourage me from using contraceptives will be the cost not necessarily the drug cost but transportation all inclusive. Example if all my money is GHC 1.00 and I need to get contraceptives from the hospital or clinic since we have none here I can't walk there and if I use the GHC 1.00 for transportation how will I get my contraceptive since it's not for free."(*(Female, FGD, Women, Rural).

**Table 4: Health Facility Related Factors That Influence Contraceptive Uptake Amongst Reproductive Women (15-49years) In Tamale Metropolis February, 2015.**

| Statements | N | COR(95% CI) | p-value | AOR(95%CI) | p-value |
|---|---|---|---|---|---|
| **Education by service providers** | | | **0.006** | | 0.16 |
| Agree | 372 | Ref | | | |
| Neither | 38 | **0.3 (0.1-0.7)** | | 3.9(0.6-24.4) | |
| Disagree | 120 | 0.8 (0.5-1.3) | | 1.5(0.7-3.1) | |
| **Attitude of service providers discourages clients** | | | **<0.001** | | **0.05** |
| Agree | 179 | Ref | | | |
| Neither | 62 | **0.4 (0.2-0.9**) | | 1.5(0.3-6.7) | |
| Disagree | 232 | **1.9 (1.3-3.0)** | | 1.7(0.9-3.3) | |
| **The environment of my service provider is conducive** | | | **<0.001** | | 0.18 |
| Agree | 254 | Ref | | | |
| Neither | 60 | 0.2 (0.1-0.4) | | 0.3(0.4-1.8) | |
| Disagree | 155 | 0.7 (0.5-1.1) | | 0.7(0.4-1.3) | |
| **Adults and adolescents both queuing for services discourages adolescent's from seeking services** | | | **0.001** | | 0.32 |
| Agree | 136 | Ref | | | |
| Neither | 82 | **0.4 (0.2-0.8)** | | 1.1(0.3-4.3) | |
| Disagree | 252 | **1.2 (0.8-1.9)** | | 2.1(0.9-4.4) | |
| **It is expensive assessing con services** | | | **<0.001** | | 0.67 |
| Agree | 93 | Ref | | | |
| Neither | 68 | **0.1 (0.1-0.3)** | | 0.2(0.1-1.2) | |
| Disagree | 309 | 1.1 (0.7-1.8) | | 0.9(0.5-2.0) | |
| **My service provider is far from my location** | | | **<0.001** | | 0.15 |
| Agree | 134 | Ref | | | |
| Neither | 66 | 0.5(0.2-1.0 ) | | 2.4(0.4-13.0) | |
| Disagree | 271 | 1.5 (0.9-2.4) | | 1.4(0.8-2.8) | |
| **There should be separate facilities to serve adults and Adolescents** | | | <0.001 | | **0.004** |
| Agree | 208 | Ref | | | |
| Neither | 79 | **0.3(0.1-0.5)** | | 0.9(0.2-3.6) | |
| Disagree | 184 | **0.5 0.3-0.7)** | | **0.4(0.2-0.7)** | |

Table 4 looks at health facility related factors that influence contraceptive uptake amongst reproductive women in the Tamale metropolis.

Education on contraceptives by service providers to clients was significantly associated with contraceptive uptake. Women who neither agreed nor disagreed to this were 0.3 times less likely to use contraceptives [COR=0.3 (95% CI 0.1-0.7)] compared to women who agreed to the statement. It was however no longer significant when the effect of other factors were controlled for in multivariate analysis.

During the FGDs it was revealed that respondents believed the best place to access contraceptive services was from the health facility.

> *"I prefer the health center because they educate our women very well before the provision of the service and it is also cheaper"*-(Male, FGD, Opinion Leaders, Urban)

> *"I will prefer to go to the hospital because if you use it and have problems, you can go back to the health facility and the problem can be corrected. They even examine you before they put you on a given method"*-(Female, FGD, Women, Urban)

Focus group discussant suggested the need for contraceptive related health education to target both males and females as the decision to use contraceptive should be by both couple. Frequent home visits by health workers also emerged as a strategy that could be adopted by health workers to increase contraceptive uptake. The study further revealed the need for contraceptive promotional activities to target adolescents as illustrated.

> *"I think contraceptive education should involve both couple and all must be present, that is both husbands and wives. (*Male, FDG, Opinion Leaders, Rural).

> "*I also suggest we promote the frequent visit of the community health officers to intensify the education on contraceptives because people have been brain washed with its side effects"* (Female, Women, FGD, Urban).

> *" From experience we the adolescents even use the contraceptives more than married women and so I think the education is more important and I also suggest you focus your study on the adolescents and contraceptive use" "*-(Male, FGD, Adolescents, Urban)

Most respondents, 232 (49%) disagreed with the statement "attitude of service providers discouraged clients from accessing contraception". at the univariate analysis respondents who neither agreed nor disagreed to this statement were 0.4 less likely to use contraceptives [COR=0.4(95% CI, 0.2-0.9)] while those who disagreed to the statement were about 2 times more likely to use contraceptives. [COR= 1.9(95% CI of 1.3-3.0)]. After multivariate analysis both were not significant [AOR= 1.5 (95% CI of 0.3-6.7.)] and [AOR=1.7, (95% CI, 0.9-3.3)] respectively.

Out of 469 respondents who answered this question "the environment of the service provider was conclusive" respondents who neither agreed nor disagreed to this statement were 0.2times less likely to use contraceptives [COR=0.2, (95%Cl 0.1-0.4)] compared to those who agreed to the statement. After multivariate analysis, this statement was no longer significant [AOR=0.3, (95% CI=0.4-1.8)].

Most respondents 252 (54%) also disagreed to the statement: "adults and adolescent queuing for contraceptives services discourages adolescents from seeking contraceptive services." The odds of such women using contraceptives was reduced by 0.4 times [COR=0.4, (95%Cl 0.2-0.8)] compared to women who agreed to the statement. This was no more significance at the multivariate analysis [AOR=1.1, (95%CI 0.3-4.3)].

Another variable of significance was the statement "there should be separate facilities to serve adults and adolescents" respondents who neither agreed nor disagreed to the statement were 0.3 times less likely to use contraceptives [COR=0.3(95%CI, 0.10.5)] compared to their counterparts who agreed to the statement. Similarly respondents who disagreed to the statement were 0.5 less likely to use contraceptives [COR=0.5(95% CI, 0.3-0.7)]. This significance was lost for

respondents who neither agreed but was significant for respondents who disagreed after adjustment [AOR=0.9, (95% CI=0.2-3.6)] and [AOR=0.4, (95% CI, 0.2-0.7)] respectively.

**Table 5: Socio- Cultural Factors Influencing Contraceptive Uptake amongst Reproductive Women (15-49years) In Tamale Metropolis, February 2015.**

| Statements | N | COR (95% CI) | p-value | AOR (95% CI) | p-value |
|---|---|---|---|---|---|
| Discuss contraception with partner | | | <0.001 | | <0.001 |
| Yes often | 76 | Ref | | | |
| occasionally | 97 | **0.4(0.2-0.8)** | | 0.5(0.2-1.2) | |
| Hardly | 34 | 0.6 (0.3-1.5) | | 0.8(0.3-2.8) | |
| Never | 258 | **0.1(0.1-0.2)** | | **0.2(0.1-0.4)** | |
| Culture/Religion does not frown on contraception | | | **0.01** | | 0.11 |
| Agree | 171 | Ref | | | |
| Neither | 44 | **0.3 (0.1-0.7)** | | 0.3(0.1-1.1) | |
| Disagree | 252 | 0.9 (0.6-1.5) | | **0.4(0.2-0.8)** | |
| People using contraception in this community are stigmatized | | | 0.50 | | |
| Agree | 84 | Ref | | | |
| Neither | 60 | 0.8(0.4-1.7) | | | |
| Disagree | 328 | **1.2 (1.7-1.9)** | | | |
| Child bearing decisions are solely made by my partner | | | 0.01 | | **0.03** |
| Agree | 175 | Ref | | | |
| Neither | 23 | 1.4(0.5-3.8) | | 5.1(0.7-36.2) | |
| Disagree | 273 | **2.2(1.5-3.4)** | | **2.1(1.1-4.2)** | |
| My partner knows I use contraceptives | | | <0.001 | | **0.03** |
| Agree | 268 | Ref | | | |
| Neither | 38 | **0.1 (0.1-0.3)** | | 0.9(0.1-44.9) | |
| Disagree | 169 | **0.2 (0.1-0.4)** | | **0.4(0.2-0.9)** | |
| My partner encourages me to use contraceptives | | | <0.001 | | 0.84 |
| Agree | 231 | Ref | | | |
| Neither | 38 | **0.1 (0.1-0.3)** | | 0.2(0.1-6.7) | |
| Disagree | 206 | **0.3(0.2-0.4)** | | 1.3(0.6-2.7) | |
| I will encourage my friends to use contraception | | | <0.001 | | 0.92 |
| Agree | 366 | Ref | | | |
| Neither | 34 | **0.1(0.1-0.4)** | | 0.5(0.6-4.4) | |
| Disagree | 71 | **0.4(0.2-0.7)** | | 0.9(0.4-2.7) | |
| In my opinion contraception should be encouraged by all | | | <0.001 | | **<0.001** |
| Agree | 389 | Ref | | | |
| Neither | 38 | **0.2 (0.1-0.5)** | | 0.7(0.1-4.8) | |
| Disagree | 45 | **0.1 (0.1-0.3)** | | **0.1(0.1-0.3)** | |

Table 5: shows results on socio-cultural factors that influence contraceptive uptake.

Women who never discussed contraception with their partners as well as women who occasionally did were 0.1 times [COR=0.1(95% CI, 0.1-0.2)] and 0.4 times [COR=0.4(95% CI 0.2-0.8)] less likely to use contraceptives compared to women who often discuss contraception with their partners. After multivariate analysis only women who never discuss contraception with their partners remained significant [AOR=0.2, (95% CI 0.1-0.4)].

In FGDs, spousal approval emerged as important in contraceptive uptake among women. To respondents, a woman must seek approval from the husband before she can use contraceptives.

> *"Women have no right to practice contraception without the knowledge of their husbands"*-(Male, FGD, Opinion Leaders).
>
> *I will sack my wife if she practice contraception without my knowledge such a woman can be a prostitute-("*-(Male, FGD, Opinion Leaders Urban).
>
> *"Mostly when the issue of contraception is discussed majority of women will want to see their husbands for a feedback before uptake only the bad wives will take a decision without their husband's knowledge"* -*("*-(Male, FGD, Opinion Leaders Rural).

Culture not frowning on contraceptive use was also found to be significant. The odds of respondents who neither agreed nor disagreed to the statement were 0.3 times less likely to use contraception in the crude odds ratio [COR=0.3, (95% CI, 0.1-0.7)]. After multivariate analysis respondents who disagreed to the statement was significantly associated with contraceptive use [AOR=0.4, (95% CI, 0.2-0.8)] Also, during the FGDs, religious constraints emerged as one of the factors affecting contraceptive use. To respondents, every woman has been endowed with a number of children to bear by the Creator. Hence, the use of contraceptive was perceived an affront to God as this prevents the bearing of children.

> *"When you practice contraception and you don't give birth to the required number of children, God has given you, on the judgement day, God will ask you where are the rest of the children"*-(Female, FGD, Women Group, Urban).

> *"God has created every woman with the total number of children each will have on earth. Contraception can neither increase nor decrease it*"-(Female, FGD, Women Group, Urban).

To respondents, the use of modern contraceptive methods were prohibited by the Quran. The Quran only approve the use of natural contraceptive methods such as withdrawal as illustrated by a respondent.

> *"I think we are not taking the word of God into consideration regarding this our discussion. The Quran has stated specifically how to space children through the method of withdrawal during sexual intercourse with your wife if you are not ready for pregnancy. We have ignored the Quran and practicing contraception which is giving our women a lot of problems like infertility, irregular menses weight gain and even death in some cases. As we speak now a lot of women are struggling with complications from contraceptive use"*-(Male, FGD, Opinion Leaders, Urban).

Another cultural factors that influence contraceptive use identified in this study was ancestral disapproval. Respondents were of the view that ancestors did not approve the use of contraceptive. Therefore people will desist from using contraceptive for fear of ancestral punishment.

> *"Our tradition does not permit the use of contraceptives. Our grandparents did not practice modern contraception. The number of children God has ordained them to give birth to was what they gave birth to"*-(Female, FGD, Women Group).

> Nonetheless, respondents in this study believed that there were traditional local ways of protecting one against pregnancy. One of the methods was to use a local preparation known as "Kaligu tim.

> *"If you have unprotected sex, there is a local emergency contraceptive called "kaligutim" that we purchase from traditional drug peddlers. It can be used in two ways, as an emergency contraceptive or when you miss your period"*-(Female, FGD, Women Group, Urban).

Another local method which emerged in the study was the use of beads. These beads are worn around the waist and are believed to protect the user from pregnancy.

> *"The beads is worn around the waist of unmarried women who want to avoid pregnancy and for women whose children are small it is worn around the waist of the child till the child is walking then it can be taken off for her to get pregnant"*-(Female, FGD, Adolescents, Rural).

Child bearing decisions solely made by male partners was also found to be significant. Respondents who disagreed to this statement were 2.2 times more likely to use contraceptives [COR=2.2, 95% CI=1.5-3.4) compared to their counterparts who agreed to the statement. This statement remained significant in multivariate analysis [AOR=2.1(95%CI 1.1-4.2)].

The odds of Respondents who neither agreed nor disagreed to the statement "my partner knows I use contraceptives" were 0.1 times [COR=0.1, (95% CI 0.1-0.3)] less likely to use contraceptives While respondents who disagreed to the statement were 0.2 times [COR= 0.2, (95%=0.1-0.4)] less likely to use contraceptives compared to respondents who agreed to the statement. In the multivariate analysis only respondents who disagreed to the statement remained significant [AOR=0.4, (95%, 0.2-0.9)].

"My partner encourages me to use contraceptives" women who neither agreed nor disagreed and women who disagreed to this statement were 0.1 and 0.3 times less likely to use contraceptives [COR 0.1, (95% CI 0.1-0.3)] and (COR=0.3, 95% CI 0.2-0.4).respectively compared to respondents who agreed to the statement. Both lost significance after multivariate analysis.

The statement,' I will encourage my friends to use contraception" was also significant at the univariate level for both those who neither agreed nor disagreed and those who disagreed with (COR=0.1, 95% CI=0.1-0.4) and (OR=0.4, 95% CI=0.2-0.7). In the multivariate analysis both were no longer significance. For respondents who disagreed to the statement, 'contraception

should be encouraged by all' were about 0.1 times less likely to use contraceptives [COR=0.1 (95%CI 0.1-0.3)] compared to their counterparts who agreed to the statement and remained the same in the multivariate analysis [AOR=0.1, 95% CI=30.1-0.3). Also respondents who neither agreed nor disagreed to this statement at univariate level were 0.2 times less likely to use contraceptives compared to respondents who agreed to the statement. (COR=0.2, 95% CI=0.1-0.5) This significance was lost after adjustment (AOR= 0.7, 95% CI 0.1-4.8).

Despite this, FGDs showed respondents believed that the side effects were very common in the use of modern contraceptives. Hence, some respondents do not use contraceptives because of the side-effects as indicated by the following rural and urban respondents.

> *"We are afraid to practice contraception because of its side effects like infertility and weight gain. Even though health worker come to educate us on contraceptives and its advantages*"-(Woman, FGD, Women Group, Rural).

> *"In some cases when you use some of the methods and stop you can still get pregnant but the pregnancy will not stay, it will get aborted as a results of the drug which is still in your system*"-(Female, FGD, Adolescent, Urban).

Nevertheless, traditional methods were believed to be equally effective and have minimal side effects like infertility as illustrated:

> *"…a lot of the traditional method is most effective with that one if a woman is taking it there is no way she will want to get pregnant again and have challenges unlike the modern method"*- (Male, FGD, Opinion Leaders, Urban).

# CHAPTER FIVE

# DISCUSSION

The study found a contraceptive prevalence of 36.8% amongst women of reproductive age and 34.3% among married women in the Metropolis compared to a national average of 34% and a regional average of 8%. This difference in prevalence could be due to the differences in populations. Tamale Metropolis is largely urban over 80% and there is evidence of higher contraceptive uptake among urban dwellers (GSS, 2014). The national and regional prevalence are probably low because they were estimated from mixed populations which are largely rural representation. Other reasons that could account for this are higher literacy rate of urban area, and availability and accessibility to contraceptives in urban areas compared to rural areas which was evident in rural focus group discussions. Prevalence of contraceptive uptake in the Tamale Metropolis was higher among urban dwellers with almost 40% compared to rural dwellers. This could be explained by the availability of contraceptives and higher literacy rates of urban areas. Having formal education was directly related to contraceptive use and women with secondary education used contraceptives most (60.8%). Increase in education has a corresponding increase in knowledge and use of contraceptives (Rahman & Kabir, 2005). Over 40% of self employed women used contraceptive, compared to 18% of unemployed women. Autonomy of self employed women could account for this high uptake of contraceptives among them. Prevalence of contraceptive use among married women was 34.3% most probably due to the frequency of sex among married women and the desire to prevent unintended pregnancies. Prevalence of contraception among poor women was higher (40.2%) compare to those with the poorer average, rich wealth quantiles.

The findings from this study suggest that religion, education and occupation play a significant role in the uptake of contraceptives. Women with secondary education were four times more likely to use contraceptives compared to women with no formal education. An earlier study among southern Ghanaian women showed that educational status of a woman was the most significant predictor of contraceptive use. Women with no formal education had a 48% reduction in the odds of ever having used contraception and a 66% reduction in the odds of currently using contraception (Adanu et al., 2009). The findings in this study is also similar to what was observed by (Lakew et al., 2013) which suggest women with higher education had a better odds of using modern contraceptives. Similarly in a study conducted in five African countries (Stephenson et al., 2007) results showed that women with at least secondary education were more likely to use contraceptives than women with no education.

While religious bodies like the Catholic Church are known for their uncompromising stand on the use of contraceptives, it was rather observed in this study that catholic women were three times more likely to use contraceptives compared to their Moslem counterparts even though this association was not significant after adjustment. The paucity of Catholics included in this study could account for this contrasting observation. However during the FGDs most Moslem respondents said contraceptive use was forbidden and a violation of Gods rules.

Most respondents believed that, God has endowed every women with the number of children to deliver. Hence, it was unreligious to use contraceptives to reduce the number of children one is required to reproduce. People that adhere to the Islamic faith in this study generally believed that the Quran only sanction natural methods. Both males, females, rural and urban respondents were unanimous on the need for any practicing Muslim to use modern contraceptive as it will be an infraction on the Quran. This was also the stand of Muslim fundamentalist who insist that any form

of contraception violates God's intentions(Srikanthan & Reid, 2008) Oketch and others found religion among other factors such as partner's approval, quality of service and proximity to service provider to be significant determinants of contraceptive uptake (Oketch T et al , 2011). Contrary to this findings that religious constraints decreased the likelihood of contraceptive use among women, a study in Kassena-Nankana district has showed that people who switch from traditional religion to Christianity or Islam were more likely to use contraceptive than those that adhere to traditional religion (Doctor *et al.*, 2009). Therefore, these religious leaders should be targeted as their acceptance of the use of contraceptives will have positive impact on contraceptive uptake among their followers.

Occupation of respondent play an important role in influencing contraceptive uptake. Findings from this study showed that unemployed women were less likely to use contraceptives compared to employed women. This findings is consistent with what was observed in Tanzania where the highest use of contraceptives was reported among women in formal employment (Michael, 2012). Marital status, age, residence, number of children a woman has, and type of marriage did not seem to influence the use of contraception in this study. This finding is different from findings in a secondary analysis of the 2008 demographic and health data which reported that place of residence and marital status were the most important predictors of contraceptive use among sexually active adolescents. Rural residents were less likely to use contraceptives compared to urban residents (OR 0.32, CI 0.12-0.84, p = 0.021) as well as married respondents compared to their unmarried peers (OR 0.27, 95% CI 0.11-0.67, p = 0.005), (Marrone et al., 2014). Nonetheless, that study focused among adolescents and not among women in fertility age.

The study identified some health facility related factors that influence contraceptive uptake. These factors were attitude of health service providers, education on contraception by service providers,

and separating facilities to serve adolescents and adults. Findings from this study showed that women who received education on contraception from service providers were more likely to use contraception than women who did not receive any education. Women who never received any contraceptive education from service providers were less likely to use contraception. Most study participants agreed during focus group discussion that the health facility was the best place to access contraceptive services because they receive appropriate counselling and professional care there. The relationship between service providers and women significantly influenced contraceptive uptake. A Kenyan study reported significant association between factors such as education of women on contraceptive use, friendliness of service provider, and proximity to service provider and uptake of contraceptives (Oketch et al., 2011)

Most women agreed that separate facilities should be provided for adults and adolescents. A significant proportion of respondents believed that the environment of the service provider is not conducive, suggesting the possibility of eligible contraceptive users staying away. Those women who were not discouraged by the service provider's attitude were more likely to use contraceptives. Care givers support has been reported to be positively associated with contraceptive use with most clients who received a better care making follow up visits (Mary Ukuku, 2008) .

Partner's approval was significantly associated with uptake of contraceptive. Women who never discussed contraception with their partners were 90% less likely to use contraceptives [AOR=0.1(95%CI, 0.1-0.4)]. In focus group discussions it emerged that a woman must seek approval from her husband before she can use contraceptives, since it is believed that women who use contraceptives without their partners' knowledge are likely to engage in promiscuous and extramarital affairs. An earlier study in southern Ghana has also reported that spousal approval was still relevant in contraceptive uptake among women (Adongo et al., 2013). Similar findings

were also reported in a study in Kenyan (Okech et al., 2011). Given the fact that spousal consent was relevant, contraceptive related health promotion messages should target both males and females. Involving men in contraceptive related activities has the potential to increase contraceptive use among women in northern Ghana.

In families where child bearing decisions are made by both partners, women are more likely to use contraceptives. The odds of using contraceptive among such women was increased by 2times [AOR=2.1(95% CI, 1.1-4.2)]. This suggests that husbands need to be encouraged to discuss contraception with their wives. In this study it was found that respondents who were against discussing family issues including contraception were 90% less likely to use contraceptives [AOR=0.1(95%CI, 0.1-0.3)]. Such stance are most likely due to religious beliefs. This could possibly be explained by the high proportions of women who also believe that culture and tradition frowns on contraception.

Another socio-cultural factors that emerged as influencing contraceptive use was religious constraints. From all indications, some religious sects prohibit the use of contraceptives among their followers. Therefore, it is important for health workers to advocate the use of contraceptives to extend their health educations to religious leaders. This is because of their potential role in influencing the use of contraceptive among their congregants. If such messages are embraced by the religious leaders it would assist in increasing contraceptive uptake. Behavioral change communication messages must be designed to highlight the several importance in contraceptives.

**Limitations of the Study**

- ✓ Participants were asked of their contraceptive practices in the last one year and there was the possibility of respondents not being able to recall their contraceptive practices in the past accurately
- ✓ Since birth certificates was not used to recruit participants, there was the possibility of interviewing respondents who did not fall within the age brackets

# CHAPTER SIX

# CONCLUSIONS AND RECOMMENDATIONS

## 6.1 Conclusions

The study found the prevalence of contraceptive uptake among women in reproductive age in the metropolis to be 36.8%. Factors that were identified to significantly affect contraceptive uptake within the Metropolis were; attitude of contraceptive service providers towards clients, prior public education on contraception by service providers and the environment where the services are provided.

Another important factor that came up in both qualitative and quantitative was male partner involvement in contraceptive uptake as well as male partners being solely responsible for child making decisions. Most reproductive women did not use contraceptives because their partners were not involved in that decision and will therefore not give them the support. Findings from this study therefore provide insights into existing opportunities that can help improve contraceptive uptake in the metropolis as well as the nation.

## 6.2 Recommendations

As a results of the above findings, the following recommendations have been suggested and targeted at the following units.

### 6.2.1Tamale Metropolitan Health Directorate

- ✓ The Metropolitan Health Directorate/administration should have a policy that authorises community Health officers to go into communities on regular basis e.g. weekly or monthly to educate community members on contraception.

- ✓ The Tamale Metropolitan Health Directorate/administration should involve Religious and opinion leaders to educate community members on the need for contraceptive uptake. as this will have positive impact on contraceptive uptake among their followers

- ✓ They should again collaborate with the Ministry of Health to further subsidize condoms that are perceived to be of good quality as suggested by some adolescents during the FGDs.

- ✓ They should collaborate with the ministry of health to ensure that every community within the metropolis have easy access to contraceptives.

### 6.2.2 Reproductive Health Units (midwives and community health officers)

- ✓ The midwives and CHOs should identify and educate opinion leader's especially religious leaders on the need to accept and use of contraceptives as they play a major role in influencing contraceptive use.

- ✓ Given that spousal consent was relevant in contraceptive use among women, contraceptive education and promotion messages should target both males and females.

- ✓ They should also continue with the routine education of clients at health centres on contraception so it will encourage women to patronize the service.

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# APPENDIX A: CONSENT FORM

**QUESTIONNAIRE ON FACTORS INFLUENCING CONTRACEPTIVE UPTAKE AMONG REPRODUCTIVE WOMEN IN THE TAMALE METROPOLIS**

DATE_____ Form No. …….

Hello, my name is Abdulai Marijanatu from University of Ghana, School of Public Health. I am gathering information on **factors influencing contraceptive uptake among reproductive women in Tamale Metropolis** I am asking you to join the study because you fall within the criteria and therefore eligible to participate. This survey will take about 15 minutes. You have the right not to answer any question you feel will disturb you. Your decision not to participate in the study or to withdraw will not be shared with anyone and will not affect you in this community or elsewhere. Your answers will be kept confidential and you name will not appear anywhere. If you have any question, you are free to ask.

Your honest and genuine participation in responding to the questions is very important and highly appreciated. Are you willing to continue with this interview?

IF YES PROCEED WITH THE INTERVIEW, ELSE THANK HER AND STOP

_____ Respondent Signature

_____ Interviewer Signature

# APPENDIX B: FOCUS GROUP DISCUSSION INTERVIEW GUIDE (ADULTS)

1. What immediately comes to mind when you hear the term contraceptives or contraceptive methods?
2. What contraceptive methods (ways) do you know could be used to avoid or delay pregnancy (mention all that apply)
3. What are the benefits or advantages of using contraceptives?
4. In your opinion what are the negative effects or disadvantages of using contraceptives?
5. Are there any traditional methods for delaying or avoiding pregnancy?( Mention all)
    - When is the method used?
    - How is the method used?
    - Who usually provides the method?
6. In your opinion which contraceptive method is more effective? ( Modern or Traditional) Give reasons for your answer
7. Is there a health facility within this community that provides contraceptive services? Probe
    - To find other contraceptive service providers
    - The distance
    - Which of them they prefer
    - Do they have Community health officers (CHOs) who regularly educate them?
8. Are there any cultural / religious practices in your community that influences contraceptive usage? probe to find out how
9. Should partners come together to discuss contraception?
10. Do you think your partners has the right to practice contraception without your knowledge

# APPENDIX C: FO CUS GROUP DISCUSSION INTERVIEW GUIDE (ADOLESCENTS)

1. What immediately comes to mind when you hear the term contraceptives or contraceptive methods?
2. What contraceptive methods (ways) do you know could be used to avoid or delay pregnancy (mention all that apply)
3. What are the benefits or advantages of using contraceptives?
4. In your opinion what are the negative effects or disadvantages of using contraceptives?
5. Are there any traditional methods for delaying or avoiding pregnancy?
6. In your opinion which contraceptive method is more effective? Give reasons for your answer
7. Mention any contraceptive provider you know in this community
8. Which of the above service providers do you think adolescents patronize?
9. Do you think youth or adolescents should have access to contraceptives? If so why?
10. Are contraceptive services accessed by all people in this community?
11. What is the attitude of providers towards adolescents in contraceptive delivery?
12. Have you ever been turned back/ refused service at any time of the day or for any reasons?
13. How conducive is the environment at the service delivery centers for adolescents?
14. Why do you think some adolescents do not patronize contraceptives?
15. Does your religion/ culture act as a barrier to contraceptive use in this community?
16. What measures can be taken to improve contraceptive uptake?
17. Should contraception be encouraged or discouraged

# APPENDIX D: QUESTIONAIAIRE

**SECTION ZERO: IDENTIFICATION INFORMATION**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| STUDY ID | | | | | | | **SSID** |
| SUB-METRO | South | 1 | Central | 2 | North | 3 | **METRO** |
| LOCALITY | Urban | 1 | Rural | 2 | | | **URBRURAL** |

| | D | D | M | M | Y | Y | Y | Y | |
|---|---|---|---|---|---|---|---|---|---|
| DATE OF INTERVIEW | | | 0 | 2 | 2 | 0 | 1 | 5 | **DATE** |

INTERVIEWER NAME / CONTACT …….. | | |

**SECTION ONE: RESPONDENT BACKGROUND**
**(THICK (√) THE APPROPRIATE RESPONSES, AND WRITE IN THE BOXES WHERE A NUMBER IS REQUIRED)**

1.1 How old are you (in completed years)? | | | **AGE**

1.2 What is your level of education? **EDUCAT**

| | | | |
|---|---|---|---|
| None | 1 | Secondary | 4 |
| Primary | 2 | Post Sec/Higher | 5 |
| Middle/JSS/JHS | 3 | Other (specify) | 6 |

……

1.3 What do you do for a living (occupation)? **OCCUP**

| | | | |
|---|---|---|---|
| Student | 1 | Farmer/other agric | 5 |
| Unemployed | 2 | Other informal employment | 6 |

| | | | | |
|---|---|---|---|---|
| Home keeper | 3 | Public servant | 7 | |
| Trader | 4 | Other formal employment | 8 | |

1.4 What is your marital status? **MARISTAT**

| | | | |
|---|---|---|---|
| Single | 1 | Divorced | 4 |
| Married | 2 | Separated | 5 |
| Co-habiting | 3 | Widowed | 6 |

1.5 If married, does your husband have another wife? **POLYGAMY**

| | |
|---|---|
| Yes | 1 |
| No | 2 |

1.6 If married or co-habiting what does he do for a living? **PARTOCCUP**

| | | | |
|---|---|---|---|
| Student | 1 | Farmer/other agric | 5 |
| Unemployed | 2 | Other informal employment | 6 |
| Home keeper | 3 | Public servant | 7 |
| Trader | 4 | Other formal employment | 8 |

1.7 What is your religious affiliation? **RELIGION**

| | | | | | |
|---|---|---|---|---|---|
| No religion | 1 | Protestant/Pentecostal | 4 | Other christian | 7 |
| Muslim | 2 | Charismatic | 5 | Other (specify) | 8 |
| Traditional | 3 | Catholic | 6 | …… | |

1.8 How many living children do you currently have? **(If none, write 00)** [ ][ ] children **PARITY**

**SECTION TWO: CONTRACEPTIVE KNOWLEDGE AND UTILIZATION**

2.1 Do you know ways/methods to delay or avoid pregnancy (contraceptives)? **AVOIDPREG**

| | |
|---|---|
| Yes | 1 |
| No | 2 |

**IF NO SKIP TO SECTION THREE**

2.2 Do you know any of these family planning methods? **(PROMPT)**

| | | YES | NO | |
|---|---|---|---|---|
| a | Female sterilization | 1 | 2 | **KFEMSTER** |
| b | Male sterilization | 1 | 2 | **KMALSTER** |
| c | Implants | 1 | 2 | **KIMPLANT** |
| d | IUD | 1 | 2 | **KIUDMETH** |
| e | Injectables | 1 | 2 | **KINJECTAB** |
| f | Pill | 1 | 2 | **KPILLMETH** |
| g | Female condom | 1 | 2 | **KFEMCOND** |
| h | Male condom | 1 | 2 | **KMALCOND** |
| i | Diaphragm | 1 | 2 | **KDIAPHRA** |
| j | Form or jelly | 1 | 2 | **KJELLY** |
| k | Calendar method | 1 | 2 | **KCALENDA** |
| l | Withdrawal | 1 | 2 | **KWITDRAW** |
| m | Lactation Amenorrhea Method | 1 | 2 | **KLAM** |
| n | Emergency contraception | 1 | 2 | **KEMRCONT** |
| o | Other (specify) …….. | 1 | 2 | …….. **KOTHER** |

2.3 Have you or your partner ever used any of these methods to delay or avoid pregnancy?

| | | YES | NO | |
|---|---|---|---|---|
| a | Female sterilization | 1 | 2 | **UFEMSTER** |
| b | Male sterilization | 1 | 2 | **UMALSTER** |
| c | Implants | 1 | 2 | **UIMPLANT** |
| d | IUD | 1 | 2 | **UIUDMETH** |
| e | Injectables | 1 | 2 | **UINJECTAB** |
| f | Pill | 1 | 2 | **UPILLMETH** |
| g | Female condom | 1 | 2 | **UFEMCOND** |
| h | Male condom | 1 | 2 | **UMALCOND** |
| i | Diaphragm | 1 | 2 | **UDIAPHRA** |
| j | Form or jelly | 1 | 2 | **UJELLY** |

| | | | | | |
|---|---|---|---|---|---|
| K | Calendar method | 1 | 2 | | **UCALENDA** |
| L | Withdrawal | 1 | 2 | | **UWITDRAW** |
| M | Lactation Amenorrhea Method | 1 | 2 | | **ULAM** |
| N | Emergency contraception | 1 | 2 | | **UEMRCONT** |
| O | Other (specify) …….. | 1 | 2 | …….. | **UOTHER** |

2.4 How many living children did you have at that time you first used contraception, if any? **PASTPARITY**

| | |
|---|---|
| | |

2.5 **IF EVER USED ANY METHOD**, have you in the past 12 months used any of these methods?

| | | **YES** | **NO** | | |
|---|---|---|---|---|---|
| A | Female sterilization | 1 | 2 | | **MFEMSTER** |
| B | Male sterilization | 1 | 2 | | **MMALSTER** |
| C | Implants | 1 | 2 | | **MIMPLANT** |
| D | IUD | 1 | 2 | | **MIUDMETH** |
| E | Injectables | 1 | 2 | | **MINJECTAB** |
| F | Pill | 1 | 2 | | **MPILLMETH** |
| G | Female condom | 1 | 2 | | **MFEMCOND** |
| H | Male condom | 1 | 2 | | **MMALCOND** |
| I | Diaphragm | 1 | 2 | | **MDIAPHRA** |
| J | Form or jelly | 1 | 2 | | **MJELLY** |
| K | Calendar method | 1 | 2 | | **MCALENDA** |
| L | Withdrawal | 1 | 2 | | **MWITDRAW** |
| M | Lactation Amenorrhea Method | 1 | 2 | | **MLAM** |
| N | Emergency contraception | 1 | 2 | | **MEMRCONT** |
| O | Other (specify) …….. | 1 | 2 | …….. | **MNOTHER** |

2.6 **IF YES FOR AT LEAST ONE METHOD EXCEPT (K/L/M)**, where did you mainly obtain the method? **PMETDPLAC**

| | | | |
|---|---|---|---|
| Public hospital/clinic | 1 | Pharmacy/drug store | 3 |
| Private hospital/clinic | 2 | Other(specify) | 4 |

2.7 Are you currently using any contraception? Yes [1] No [2] **CURENTUSE**

2.8 **IF CURRENTLY USING**, which method are you currently using to delay or avoid pregnancy?

| | | | |
|---|---|---|---|
| a | Female sterilization | 1 | **CFEMSTER** |
| b | Male sterilization | 2 | **CMALSTER** |
| c | Implants | 3 | **CIMPLANT** |
| d | IUD | 4 | **CIUD** |
| e | Injectables | 5 | **CINJECTAB** |
| f | Pill | 6 | **CPILL** |
| g | Female condom | 7 | **CFEMCOND** |
| h | Male condom | 8 | **CMALCOND** |
| i | Diaphragm | 9 | **CDIAPHRA** |
| j | Form or jelly | 10 | **CJELLY** |
| k | Calendar method | 11 | **CCALENDA** |
| l | Withdrawal | 12 | **CWITDRAW** |
| m | Lactation Amenorrhea Method | 13 | **CLAM** |
| n | Emergency contraception | 14 | **CEMRCONT** |
| o | Other (specify) …….. | 15 …… | **COTHER** |

2.9 Where did you mainly obtain the method? **CMETDPLAC**

| | | | |
|---|---|---|---|
| Public hospital/clinic | 1 | Pharmacy/drug store | 3 |
| Private hospital/clinic | 2 | Other(specify) | 4 …….. |

2.10 What informed your choice of that method? **WHYMETHOD**

| | | | |
|---|---|---|---|
| Affordability | 1 | Easy access/availability | 5 |
| Privacy | 2 | Side effect of other methods | 6 |
| Long term protection | 3 | Convenience | 7 |

| | | | | |
|---|---|---|---|---|
| Short term protection | 4 | Other (specify) | 8 | …… |

2.11 **IF NO IN 2.5 AND 2.8**, why are you not using any method to delay or avoid pregnancy? **REASNOCONT**

| | | | |
|---|---|---|---|
| Religious beliefs | A | Abstenance/partner travelled | f |
| Traditional beliefs | B | Amenorrheoic | g |
| Partner refuses | C | Do not wish to avoid pregnancy | h |
| Expensive | D | Currently pregnant | i |
| Side effect | E | Other(specify) | j |
| | | …… | |

2.12 Would you consider using family planning in future to delay or prevent pregnancy? **FUTFPUSE**

YES 1 NO 2 DK 3

**IF YES OR DON'T KNOW IN 2.12**

2.13 Which of these methods would you consider using in future to delay or prevent pregnancy? **FUTMETHD**

| | | YES | NO | |
|---|---|---|---|---|
| a | Female sterilization | 1 | 2 | **FFEMSTER** |
| b | Male sterilization | 1 | 2 | **FMALSTER** |
| c | Pill | 1 | 2 | **FPILL** |
| d | IUD | 1 | 2 | **FIUD** |
| e | Injectables | 1 | 2 | **FINJECTAB** |
| f | Implants | 1 | 2 | **FIMPLANT** |
| g | Female condom | 1 | 2 | **FFEMCOND** |
| h | Male condom | 1 | 2 | **FMALCOND** |
| i | Diaphragm | 1 | 2 | **FDIAPHRA** |
| j | Form or jelly | 1 | 2 | **FJELLY** |
| k | Calendar method | 1 | 2 | **FCALENDA** |
| l | Withdrawal | 1 | 2 | **FWITDRAW** |
| m | Lactation Amenorrhea Method | 1 | 2 | **FLAM** |

| | | | | | |
|---|---|---|---|---|---|
| N | Emergency contraception | | 1 | 2 | **FEMRCONT** |
| O | Other (specify) | …….. | 1 | 2 | …….. **FOTHER** |

**SECTION THREE: BARRIERS AND FACILITATORS OF CONTRACEPTIVE UPTAKE**

3.1 Do you discuss family planning with your husband or co-habiting partner? **FPWITHUSB**

| | | | |
|---|---|---|---|
| Yes, often | 1 | Hardly | 3 |
| Yes, occasionally | 2 | Never | 4 |

PLEASE INDICATE WHETHER OR NOT YOU AGREE WITH THESE STATEMENTS

| | STATEMENT | ST AGREE | AGREE | INDECISIVE | DISAGREE | ST DISAGR | |
|---|---|---|---|---|---|---|---|
| 3.2 | My partner knows that I use contraceptives | 1 | 2 | 3 | 4 | 5 | **PATKNOWCONT** |
| 3.3 | My partner encourages me to use contraception | 1 | 2 | 3 | 4 | 5 | **PARTENCONT** |
| 3.4 | Other family members do not have to know that I use contraceptives | 1 | 2 | 3 | 4 | 5 | **FAMCONT** |
| 3.5 | My service provider educated me on the different contraceptive methods | 1 | 2 | 3 | 4 | 5 | **DIFFMETHS** |
| 3.6 | Attitude of my service provider discourages clients from visiting for service | 1 | 2 | 3 | 4 | 5 | **ATTITUDISC** |
| 3.7 | I would encourage my friends to use contraception | 1 | 2 | 3 | 4 | 5 | **ENCOUFRIEND** |
| 3.8 | I would use contraception even if my partner does not approve of it | 1 | 2 | 3 | 4 | 5 | **PARTDISAGREE** |
| 3.9 | My service provider is far from my location | 1 | 2 | 3 | 4 | 5 | **PROVIDAFAR** |
| 3.10 | It is too expensive accessing contraceptive method | 1 | 2 | 3 | 4 | 5 | **CONTEXPENSIV** |
| 3.11 | Side effects discourage many women from using contraception | 1 | 2 | 3 | 4 | 5 | **DISCOWOMEN** |
| 3.12 | Child bearing decisions are solely made by my partner | 1 | 2 | 3 | 4 | 5 | **CHILDECISION** |
| 3.13 | I was told of side effects associated with the contraceptive you are using | 1 | 2 | 3 | 4 | 5 | **METSIDEFFECT** |
| 3.14 | I usually pay more for the service I am provided (**USERS ONLY**) | 1 | 2 | 3 | 4 | 5 | **PAYMORE** |
| 3.15 | It is too expensive accessing contraceptive services from health centers than from other sources | 1 | 2 | 3 | 4 | 5 | **EXPENSFACIL** |
| 3.16 | The family planning clinic is located at a conducive environment | 1 | 2 | 3 | 4 | 5 | **CONDENVIRO** |
| 3.17 | Adults and adolescents both queuing together for services discourages | 1 | 2 | 3 | 4 | 5 | **ADOLESADULT** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | the adolescents from seeking the services | | | | | | |
| 3.18 | There should be separate facilities to serve adults and adolescents separately | 1 | 2 | 3 | 4 | 5 | **SEPADOLESC** |
| 3.19 | Much time is spent queuing for services at the health facility than other places | 1 | 2 | 3 | 4 | 5 | **TIMINQUE** |
| 3.20 | The culture/tradition around here does not frown on contraception | 1 | 2 | 3 | 4 | 5 | **CULTFROWNS** |
| 3.21 | Around here people known to be on contraception are stigmatized | 1 | 2 | 3 | 4 | 5 | **STIGMA** |
| 3.22 | In my opinion contraception should be encouraged by all | 1 | 2 | 3 | 4 | 5 | **CONTRAENC** |

3.23 In the last 12 months, how often have you visited your service provider?

| | | | |
|---|---|---|---|
| No visits | 1 | Two or three times | 3 |
| Once | 2 | Four times or more | 4 |

3.24 What was the main reason for your most recent visit

| | |
|---|---|
| Contraceptive services | 1 |
| Other services | 2 |

**SKIP TO 3.27**

3.25 How much did you have to pay for that service, if any? **GH¢** [ ][ ][ ] . [ ][ ] **AMOUNTPAID**

3.26 Do you usually pay any extra money Yes [1] No [2] **EXTRAPAYMT**

3.27 What are the three most important factors that will motivate/motivated you to use contraception?

| | | |
|---|---|---|
| Resumption of menses | 1 | **MOTMENSES** |
| Resumption of sex | 2 | **MOTSEX** |
| Medical reasons | 3 | **MOTMEDI** |
| Insistence of partner | 4 | **MOTPART** |
| Want no more kids | 5 | **MOTKIDS** |
| To space my children | 6 | **MOTSPACE** |
| Service providers' attitude | 7 | **MOTPROV** |

Other (specify) 8 …… **OTHERMOTFACT**

3.28 What three important factors would discourage you from using contraception?

| | | |
|---|---|---|
| Religious reasons | 1 | **DISCRELIG** |
| Traditional reasons | 2 | **DISCTRAD** |
| Partner refusal | 3 | **DISCPART** |
| Fear or perceived of side effects | 4 | **DISCFEAR** |
| Previous or perceived method failure | 5 | **DISCFAIL** |
| Attitude of providers | 6 | **DISCATTIT** |
| Other (specify) | 7 …… | **OTHERDISFACT** |

3.29 Giving the opportunity, would you want to change your service provider? **CHANGEPROV**

| | |
|---|---|
| Yes | 1 |
| No | 2 |

3.30 Main reason for your answer ……

**SECTION FOUR: HOUSEHOLD CHARATERITICS**

4.1 Who owns the dwelling your household live in **TENURE**

| | | | |
|---|---|---|---|
| Household member | 1 | Perching | 4 |
| Renting | 2 | Other (specify) | 5 …….. |
| Rent free | 3 | | |

4.1 **IF OWN OR RENTING**, what is the main construction material for the outer walls of the dwelling **WALLS**

| | | | |
|---|---|---|---|
| Cement blocks/concrete | 1 | Burned bricks | 3 |
| Earth/mud/mud bricks | 2 | Other | 4 |

4.3 **IF OWN OR RENTING**, what is the main construction material for the floor of the dwelling **FLOOR**

| | | | |
|---|---|---|---|
| Cement blocks/concrete | 1 | Tiles/terrazzo | 3 |
| Earth/mud/mud bricks | 2 | Other | 4 |

4.4 **IF OWN OR RENTING**, what is the main construction material for the roof of the dwelling **ROOF**

| | | | |
|---|---|---|---|
| Metal sheets/roofing tiles | 1 | Cement blocks/concrete | 3 |

Thatch/raffia/palm leaves | 2 | Other | 4

4.5 Does any member of your household own a house anywhere? **OTHERHSE**

Yes 1 No 2

4.6 Does your household have:

| | | YES | NO | |
|---|---|---|---|---|
| A | Electricity | 1 | 2 | **ELECTRIC** |
| B | Radio | 1 | 2 | **RADIO** |
| C | Black and white television | 1 | 2 | **TELEVISION1** |
| D | Color Television | 1 | 2 | **TELEVISION2** |
| E | Land/Fixed Telephone | 1 | 2 | **LANDFON** |
| F | Refrigerator/freezer | 1 | 2 | **FRIDGE** |
| G | Washing Machine | 1 | 2 | **WASHMACH** |
| H | Laptop Computer | 1 | 2 | **LAPTOP** |
| I | Desktop Computer | 1 | 2 | **DESKTOP** |
| J | Video Deck | 1 | 2 | **VDECK** |
| K | DVD/VCD Player | 1 | 2 | **DVDPLAY** |
| L | Sewing Machine | 1 | 2 | **SEWMACH** |

4.7 Does any member of your household own:

| | | YES | NO | |
|---|---|---|---|---|
| A | A watch | 1 | 2 | **WATCH** |
| B | A mobile/smartphone | 1 | 2 | **MOBILFON** |
| C | A bicycle | 1 | 2 | **BICYCLE** |
| D | A motorcycle or scooter | 1 | 2 | **MOTOR** |
| E | An animal-drawn cart | 1 | 2 | **CART** |
| F | A car or truck | 1 | 2 | **VEHICLE** |
| G | A canoe/Boat | 1 | 2 | **CANOE** |

4.8 How many of the following animals does this household have?

| | | | |
|---|---|---|---|
| A | Cattle, milk cows, or bulls? | | **CATTLE** |
| B | Horses, donkeys, or mules? | | **HORSE** |
| C | Goats? | | **GOAT** |
| D | Sheep? | | **SHEEP** |
| E | Chickens? | | **CHICKEN** |
| F | Rabbits? | | **RABBIT** |
| G | Ducks? | | **DUCKS** |
| H | Others (specify) | ..... | **OTHANIMAL** |

**If none, record '00'. If 99 or more, record '99'. If unknown, record '98'.**

4.9 Does any member of your household own a piece of land? **LAND**

Yes [1] No [2]

**THANK YOU FOR YOUR TIME**