THE USE OF MODERN CONTRACEPTION IN THE NORTHERN REGION OF GHANA

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BY

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GLOSSARY

Unmet Need is defined as the percentage of women who want to delay their next birth by at least 2 years or to have no more children but are currently not using a contraceptive method.

Total Fertility Rate (TFR) is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The TFR is obtained by summing the age-specific fertility rates and multiplying by five.

Modern Family Planning Services include information and counselling by health personnel about modern contraceptive methods, provision of these methods or prescriptions, and related surgical procedures (for example, IUD insertion or sterilization); they also include screening and testing for reproductive tract infections, STIs (including HIV), cervical and breast cancer, and other gynaecologic and urologic conditions.

Task Shifting: Is a process of delegation or shifting of some tasks to less specialized health workers.

Covert Use is the use of contraception without the knowledge of the partner.

Mutuelles are community managed mutual health organizations which are a form of health insurance.

Couple Year Protection is a proxy for CPR during non-DHS Demographic Health Survey) years. It is based on the volume of all contraceptives sold or distributed to clients that year.

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
BCC	Behavioural Change Communication
CHC	Community Health Compound
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-Based Health Planning Services
CHV	Community Health Volunteer
CMS	Central Medical Stores
CPD	Continuous Professional Development
CPR	Contraceptive Prevalence Rate
CYP	Couple Years of Protection
EC	Emergency Contraceptive
FHD	Family Health Division
FP	Family Planning
FPS	Family Planning Service
GAR	Greater Accra Region
GBV	Gender Based Violence
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GNA	Ghana News Agency
GPHC	Ghana Population and Housing Census
GPRS II	Ghana Poverty Reduction Strategy II
GSMF	Ghana Social Marketing Foundation
GSS	Ghana Statistical Service
HC	Health Centre
HIV	Human Immune-Deficiency Virus
HPI	Health Policy Initiative
ICHD	International Course in Health and Development
ICPD	International conference on Population and Development
IEC	Information, Education and Communication
IMMR	Institutional Maternal Mortality Rate
IMR	Infant Mortality Rate
IUD	Intra-Uterine Device
LTRM	Long Term Reversible Methods
MC	Modern Contraception
MMR	Maternal Mortality Ratio
MOFEP	Ministry of Finance and Economic Planning
MOH	Ministry of Health
MWRA	Married Women of Reproductive Age
NDPC	National Development Planning Commission
NGO	Non-Governmental Organization
NHIS	National Health Insurance Scheme

NPC	National Population Council
NPP	National Population Policy
NRHPS	National Reproductive Health Policy and Standards
NR	Northern Region
NRHS	Northern Regional Health Services
OCP	Oral Contraceptive Pill
OOPE	Out of Pocket Expenditure
PM	Permanent Methods
PHC	Primary Health Care
PPAG	Planned Parenthood Association of Ghana
QHP	Quality Health Partners
RHCS	Reproductive Health Commodity Security
RMS	Regional Medical Stores
SADA	Savannah Accelerated Development Authority
SRHH	Sexual and Reproductive Health and Rights
STM	Short Term Methods
TFR	Total Fertility Rate
UER	Upper East Region
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session
USAID	United States Agency for International Development
UWR	Upper West Region
WHO	World Health Organization
WIFA	Women in Fertile Age

ABSTRACT

Problem: The Northern Region has a high total fertility rate with its consequences of high maternal mortality and morbidity, high infant mortality and the practice of unsafe abortion as a result of unintended pregnancies. Analysing the use of contraception, in order to make recommendations would help address the problem.

Objectives: The objectives of this study are to analyse environmental, population characteristics, health behaviours and outcomes associated with the use of modern contraception. Successful interventions elsewhere were also analysed.

Methods: a literature review was conducted and the modified Anderson-Newman Behavioural model was utilised for the analysis.

Results: Some factors found to affect the use of modern contraception include environmental factors such as policies that encourage abstinence, and limit the provision of certain methods to certain cadres of staff. Population level characteristics found include low levels of education and literacy, unequal power relations between couples, misconceptions about contraception, inadequate funding, and inability to access and afford services, limited choice and inadequate activities to generate demand. Health behaviours identified include the preference of short term methods and outcomes such as side effects were found to be associated with the use of modern contraception. The Matlab project which brought contraceptive services to the doorstep of couples combined with a strong educational campaign and Rwanda's' performance-based financing, health insurance, community based distribution and education were interventions found to be effective.

Conclusion: It was concluded that some policies that restricted the provision of certain contraceptives to certain cadres of staff and enabled some providers to be judgemental, low educational levels, limited reproductive autonomy for women, misconceptions about contraception, side effects, few activities to generate demand and limited availability of youth friendly services was associated with the use of contraception. The suboptimal implementation of service delivery, inadequate and lack of funding and competent staff were also found to correlate with the use of contraception.

Recommendations: It was recommended that adequate funds should be released timely and cost of contraception should be included in the National Health Insurance Scheme (NHIS). Also, the social component of service delivery, better education to address misconceptions and side effects, training to update skills of staff, motivational packages to attract and retain staff, regular supervision, monitoring and evaluation should be

strengthened. At the individual level, educating influential members of the community such as religious leaders, improving educational levels and activities to involve men are recommended.

Key Words: Modern contraception, Northern Region, Ghana, Total fertility Rate.

Word Count: 12,994.

INTRODUCTION

As the resident Medical Officer of the Anti-Retroviral Therapy (ART) clinic of the Ridge Regional Hospital in Ghana, I was exposed to clients' unmet need of contraception and the lack of understanding that regulating their fertility would improve their health status and that of their children. I developed an interest in Sexual and Reproductive Health and Rights (SRHH) issues and decided that instead of limiting my expertise to HIV and AIDS clients, I would broaden my scope of expertise in all matters of SRHH. I decided to write my thesis on contraception when I realized the level of use was affecting the health of women and children in the Northern Region. Recently a lot of attention has been focussed on the Northern Region (NR) in an attempt to alleviate poverty. The high Total Fertility Rate (TFR) has been identified in the National Population Policy of 1994 as one of the factors that if addressed will help improve Maternal and Child health in the Northern Region. Promoting maternal and child health through the use of modern contraception will help in ensuring a reduction in poverty because of the established link between poverty and high fertility rates. A thesis on factors affecting the use of modern contraception (MC) in the Northern Region will add more insight to the problem and recommendations will help solve the problem of poor maternal and child health outcomes.

Globally, increasing the use of modern contraception is perceived to be instrumental in promoting maternal health and rights by reducing fertility levels with an impact on population growth and will subsequently advance economic prosperity especially in Sub-Saharan Africa (Gordon 2011). The current use of contraceptives has been estimated " to prevent 218 million unintended pregnancies in developing countries and in turn will avert 55 million unplanned births, 138 million abortions (of which 40 million are unsafe), 25 million miscarriages and 118 thousand maternal deaths" (Singh and Darroch 2012).

Ensuring universal access to contraceptive services is a target of the Millennium Development Goal (MDG) 5 which emphasises the "rights of couples to decide freely and responsibly the number of children they want to have" (UN 2000). Developing a rights based approach to the provision of contraceptives was advocated during the International Conference on Population and Development (ICPD) held in Cairo, Egypt in 1994. A rights based approach will help the Northern Region fulfil the rights of its inhabitants and help Ghana in achieving the MDGs. As the world tries to reduce inequities in health caused in some instances by poverty, it has become essential to analyse the use of contraception in the Northern Region as it is an important determinant of fertility levels.

Contraception is defined as "the deliberate use of artificial methods or techniques to prevent pregnancy as a consequence of sexual intercourse" (Oxford Dictionary). There are two main types, the Traditional and Modern. Traditional methods include abstinence, withdrawal and the rhythm method. Modern contraception includes Short Term Methods (STM), Long Term Reversible Methods (LTRM) and Permanent Methods (PM). STM include condoms (male and female), spermicides, Oral Contraceptive Pill (OCP) and natural family planning methods. Intra-Uterine Devices (IUD), Injectable and Implants are examples of LTRM. PM includes Bilateral Tubal Ligation (BTL) and vasectomy (GSS, GHS & ICF Macro 2003).

CHAPTER 1: PROFILE OF STUDY AREA

This chapter contains a brief description of Ghana and the Northern Region and provides the context within which subsequent findings and discussion will be based.

1.1 Brief Profile of Ghana

Ghana is a country located on the West African coast. The country is divided into ten administrative regions namely Greater Accra (GAR) which has the capital city of Accra, Central, Ashanti, Eastern, Volta, Western, Brong-Ahafo (BAR), Northern (NR), Upper East (UER) and Upper West Regions (UWR). The country has a population of approximately 25 million according to the 2010 Population and Housing census (PHC) conducted by the Ghana Statistical Service (GSS). English is the official language as it was colonized by the British and attained independence on the 6th of March, 1957. Ghana recently discovered oil and attained the status of a Low Middle Income Country with a health expenditure of 75 US Dollars per capita (World Bank 2011). The northern part of the country consists of the NR, UER and the UWR. The southern part of the country consists of the rest of the country and is better developed in terms of infrastructure and the provision of social amenities (Dessus et al. 2011).

Figure 1: Map of Ghana showing the Northern Region

(GSS, GHS & ICF Macro 2009)

1.2 Northern Regional Profile

1.2.1 Population Characteristics

The Northern Region is the largest in the country, covering approximately 70,400 square kilometres. This constitutes about 29% of the total land mass of Ghana (GHS 2011). The region is subdivided into 26 administrative districts with 91 health sub-districts and 354 health facilities (NRHS 2012). It has a population of approximately 2.5million inhabitants. It is sparsely populated with a population density of 35 persons per square kilometre, is mostly rural (69.7%) and only 30.3% live in urban areas (GSS 2013).

There are over 5000 settlements scattered all over the region with population sizes ranging between 200-500 inhabitants. More than half of these settlements have less than 200 inhabitants. Distances between settlements are vast and this distribution has had severe implications for health service delivery. Sometimes outreaches are organized only for the team to meet very few of the target population. Seven districts have been classified as "overseas" as they can only be reached through neighbouring regions or districts or only during the dry season when roads are passable. The Volta River passes through the region and some villages can be reached only by boat (GHS 2011).

Islam is the predominant religion (60%) with 16% practicing the traditional religion. Christianity and others constitute 24% (GSS 2013). The population is divided into 9 ethnic groups though the dominant group are the Mole-Dabgani. There are 9 major languages spoken with various dialects (Ghana Web 1994).

1.2.2 Economic Activities

The Northern Region lies fully in the savannah belt and as the Volta River passes through most of the region, most inhabitants engage in agriculture, fishery and forestry. Though the region has the highest proportion of economically active persons in the country engaged in agriculture, fishery and forestry, most of it is on a small scale and poverty levels are high (GSS 2013). The savannah terrain is ideal for mechanized farming and the region has the potential of being the food basket of the country, but because of lack of investment and non-availability of agricultural extension services most inhabitants are subsistence farmers. This combined with a long dry season, one short major rainy season and few industries has caused the youth to abandon farms to migrate to the southern part of Ghana in search of employment. The Northern Region is connected to the national grid for electricity, but a kerosene lamp remains the source of lighting for 42.3% of inhabitants (GSS 2013).

1.2.3 Education and Literacy

There are numerous educational institutions including the University of Development Studies which also has a medical school, nursing and midwifery training schools. Nevertheless, the Northern Region has the lowest school enrolment rate, the highest rate of illiteracy and the highest rate of school dropouts with more females being affected than males compared to the other regions (GHS 2011). This has implications for the promotion and use of modern contraception.

1.2.4 Health Services

The Northern Region has 354 health facilities with a doctor to population ratio of 1:21,750 inhabitants (NRHS 2012) compared to a national average of 1:10,032 (GHS 2011). It has the highest midwife to Women in Fertile Age (WIFA) ratio of 1:2,050 compared to a national average of 1:1478 (NRHS 2012). This has implications for delivering long term methods of contraception as they provide these services. Table 1 below shows the number, type and ownership of health facilities as this affects the availability and accessibility of contraceptive services. As shown, Government facilities which are public constitute the majority. All government, quasi government and some mission facilities offer contraceptive services, but not the full range of methods and at a lower cost compared to private facilities (NRHS 2012). Community-Based Health Planning Services (CHPS) which form the majority offer only 3 types of modern contraception.

Table 1: Number, type and ownership of health facilities

OWNERSHIP	HOSPITAL	POLYCLINIC	HEALTH CENTRE	CLINIC	MATERNITY HOMES	Community-Based Health Planning Services
GOV'T.	11	5	80	21	0	181
MISSION	6	2	14	6	0	0
Q-GOVT.	2	0	0	1	0	0
PRIVATE	3	0	0	15	7	0
TOTAL	22	7	94	43	7	181

(NRHS 2012)

1.2.5 Modern contraception use in the Northern Region

The injectable is the method of choice for Married Women of Reproductive Age (MWRA) in the region and there is low demand for emergency contraception and vasectomy. Coverage of contraceptive services is low at approximately 23% (NRHS 2012), unmet need of modern

contraception for Ghana is 35% and approximately 7% of married women in Ghana were using traditional methods of contraception (GSS, GHS & ICF Macro 2009). Separate figures for the Northern Region are not available and may be higher. Couple years of protection (CYP) for modern contraception decreased in 2012 (NRHS 2012) as shown in table 2 below:

Table 2: CYP for modern contraception

Modern Contraceptives	2010	2011	2012
Short term	31772.23	24881.11	25254.38
Long term	31463.49	49743.63	12336.8
Total	**63235.72**	**74624.74**	**37590.8**

(NRHS 2012)

CHAPTER 2: BACKGROUND, PROBLEM STATEMENT, JUSTIFICATION, OBJECTIVES AND METHODOLOGY

2.1 Background

In an attempt to alleviate poverty, promote economic growth and long-lasting development, the Government of Ghana through the National Population Council (NPC) in 1994 revised its 1969 National Population Policy (NPP) as the strategies adopted under the policy failed to meet its objective of managing population growth (NPC 1994). A major target of the revised policy is "to reduce the TFR from 5.5 births per Women In Fertile Age (WIFA) to 5.0 births per WIFA by the year 2000, to 4.0 births per WIFA by 2010 and then to 3.0 births per WIFA by the year 2020" (NPC 1994). The 2010 target has however been realised in 2008 with a TFR of 4.0 births per WIFA making Ghana's TFR one of the lowest in the sub region.

According to the 2008 Ghana Demographic and Health survey (GDHS) though trends in the TFR have decreased from a national average of 6.4 births per WIFA in 1988 to 4.0 births per WIFA in 2008, that of the Northern Region remains high at 6.8 births per WIFA (GSS, GHS & ICF Macro 2009). Though the region is mostly rural, its TFR far exceeds the average for rural areas which is set at 4.9 births per WIFA. The Northern Region also had the highest proportion of currently pregnant women with 23% of female adolescents having started childbearing (GSS, GHS & ICF Macro 2009).

The behavioural components of the proximate determinants of fertility (Bongaarts et al. 1984) which include contraceptive use, proportions married or in a union, contraceptive effectiveness, incidence of induced abortion, duration of postpartum infecundability and frequency of intercourse are parameters that have been described to determine fertility levels. The level of contraception use has been described as the most important of these determinants. It has also been proven that a strong correlation exists at the national level between contraceptive use and fertility rates (Blanc and Grey 2002). A gain of 15 percentage points in the Contraceptive Prevalence Rate (CPR) is synonymous with a decrease of one child in the TFR (Ross and Frakenberg, cited in Blanc and Grey 2002).

2.2 Problem Statement

The revised population policy sought to achieve its target with the use of modern contraception with the realisation of a CPR (married women) of 15% by the year 2000, 28% by 2010 and 50% by 2020 (NPC 1994). Therefore, in line with its population policy, the Ghana Health Service embarked on sensitisation and promotional activities to encourage the use

of modern contraception in an attempt to improve maternal and child health by regulating fertility.

Knowledge of any form of modern contraception is universal with 91% of all women (338 women) and 98% of all men (237 men) knowing a method (GSS, GHS & ICF Macro 2009). However, it does not translate into actual use with the country recording a low CPR of 17% (WHO 2012). The Northern Region reports the lowest CPR of 6% (338 women) compared to 22% (422 women) in the GAR (GSS, GHS & ICF Macro 2009) and has failed to achieve the 2000 and 2010 CPR targets of 15% and 28% respectively. Furthermore, the Couple Years of Protection (CYP) decreased by more than half between 2011 and 2012 (NRHS 2012).

The 2010 census showed that the Northern Region had experienced a growth explosion in the intercensal period with a population growth rate of 2.9% which was higher than the national average of 2.4%. This contributed the fourth largest percentage share of Ghana's population (GSS 2013). Though this population growth may not be attributed solely to the level of modern contraception use, its contribution cannot be overlooked.

A persistently high TFR in combination with a low use of modern contraception and the practice of unsafe abortion contribute to Ghana's high maternal mortality and morbidity (Population Council 2011). Though it has one of the lowest Institutional Maternal Mortality Ratios (IMMR) of 136 per 100,000 live births in the country, the low rate of skilled delivery of 47.2% in the Northern Region (NRHS 2012) may imply that deaths in the community are not always reported in a health facility.

It has been documented that more than a third (37%) of all pregnancies in Ghana are unintended; 23% are mistimed and 14% are unwanted (GSS, GHS & ICF Macro 2009). Separate statistics for the Northern Region are not available. Abortion was the cause of 4% of the IMMR though the rate of elective abortions increased (NRHS 2012). This statistic may just be the tip of the ice-burg as not all cases of abortion may be reported or documented. This would hamper efforts in achieving MDG 5 which Ghana is committed to achieving. Reducing the number of unintended pregnancies through an increase in the use of modern contraception would reduce maternal mortality caused by unsafe abortion.

Teenage pregnancies and deliveries are at a higher risk of developing complications resulting in morbidity or mortality of the baby or themselves. The Northern Region has the highest percentage of teenagers aged 15-19 (22.6% of 102 teenagers) who have begun childbearing compared to 6.6% (162 teenagers) in the Greater Accra Region (GSS, GHS & ICF Macro 2009). Of all pregnancies in the Northern Region, 0.1% was in early teenagers and 10.4% were late teenagers. The Northern

Region also recorded 5 maternal deaths in the 15-19 age groups (NRHS 2012).

It has been established that a short birth interval results in poor prognosis for the preceding birth. The median birth interval in the rural areas of Ghana is 38 months compared to 44 months in the urban areas and that of the Northern Region is even lower than the rural average at 37 months. The infant mortality rate was 70 per 1000 live births compared to a national average of 50 per 1000 live births (GSS, GHS & ICF Macro 2009).

This study will analyse and explore the use of modern contraception in the Northern Region in an attempt to explain one of the reasons for its persistently high TFR with its consequences for maternal and child health.

2.3 Justification

It has become imperative to analyse the use of modern contraception in the Northern Region of Ghana because a low CPR implies a high unmet need of contraception and results in increased maternal and child mortality and a high rate of population growth with its problems. Problems associated with unmanaged population growth include high levels of poverty, unemployment and overburdened health facilities resulting in suboptimal health status of the people. Government initiated interventions such as the Savannah Accelerated Development Authority (SADA) may never achieve its aim of reducing poverty in the region if maternal and child health is not ensured.

Furthermore, though abortion laws in Ghana are liberal, a lot of unsafe abortions are still being carried out (Morhee and Morhee 2006). The Northern Region recorded 421 cases of abortion induced at home (NRHS 2012) but a lot of cases are not reported. In order to fulfil the rights of couples to freely and responsibly plan, when and how many children to have, efforts must be made to understand what influences the use of modern contraception.

A lot of studies have been done on the use of modern contraception in Ghana but few have focussed on the Northern Region and at factors that have affected its use. It is hoped that findings from this research will inform policy makers on the use of modern contraception in this region and whether these have been addressed by current policies and programs. Recommendations will be made based on findings to the Family Health Division of the Ghana Health Service to help make policies and programs more effective in increasing its use.

2.4 Objectives

2.4.1 General Objectives

To analyse the use of modern contraception in the Northern Region of Ghana in order to make recommendations to the Family Health Division of the Ghana Health Service which when implemented will help increase the use of modern contraception

2.4.2 Specific Objectives

1. To explore environmental factors that affects the use of modern contraception.
2. To analyse population characteristics that influence the use of modern contraception
3. To analyse the health behaviours and explore outcomes associated with the use of modern contraception.
4. To explore different interventions in other countries that has been successful in increasing the use of modern contraception.
5. To make recommendations based on findings to the Family Health Division of the Ghana Health Service.

2.5 Methodology

A literature review was conducted using search engines like Google Scholar, PubMed and Scopus. Some keywords searched include Northern Region, Ghana, contraceptive use, family planning, Contraception, Age, contraceptive prevalence rate, culture, traditions, unmet need, millennium development goals, poverty, gender, religion, environment, socioeconomic, maternal mortality, infant mortality, abortion, occupation, fertility and education.

Literature searched was not limited to a time frame in order to get a wide variety of relevant sources and also because a lot of work was done on contraception in Ghana in the late 1980s and in the 1990s. Both published and unpublished material was reviewed and included articles, reports, and textbooks. Selection was limited to materials published in English as it is the language spoken by the author and the official language of Ghana.

2.6 Limitations of the study

Some limitations identified include

- Literature on contraception in the Northern Region is limited and most of it is based on the GDHS and the Kassena-Nankana project.
- The GDHS did not have data disaggregated by region for some of the questions asked on contraceptive use.
- The inability to find literature addressing the benefits of modern contraception for individuals based on the judgement of a

competent provider. This is one of the sections in the conceptual framework and may require empirical research to answer.

- There were difficulties in accessing some records as most of it is not online, such as the services delivered by the Planned Parenthood Association of Ghana and pharmacies/chemical shops in the Northern Region.
- Literature reviewed was limited to English.

2.7 Conceptual framework

The Anderson Behavioural Model was developed in 1963 to help understand why families use health services. Its focus was later shifted to the individual because of difficulties associated with the heterogeneous nature of families. It has subsequently undergone various revisions by different authors. The version used in this work was modified by Anderson and Newman in the 90s. The module postulates that health service utilization is influenced by Environmental factors, Population Characteristics and the Outcomes associated with the actual use of services (Anderson 1995)

A. Environmental factors

This includes the health care system and the external environment. The Health care system includes policies, resources and their organization. The external environment deals with the physical environment and other factors that influence use (Anderson 1995).

B. Population Characteristics

These include predisposing factors which are demographic features which have a low degree of mutability, social structure and the health beliefs of an individual (Anderson 1995).

Enabling factors are also characteristics of populations which influence the use of services. They include personal, family or community resources and service that are available for the use of an individual when ill (Anderson 1995).

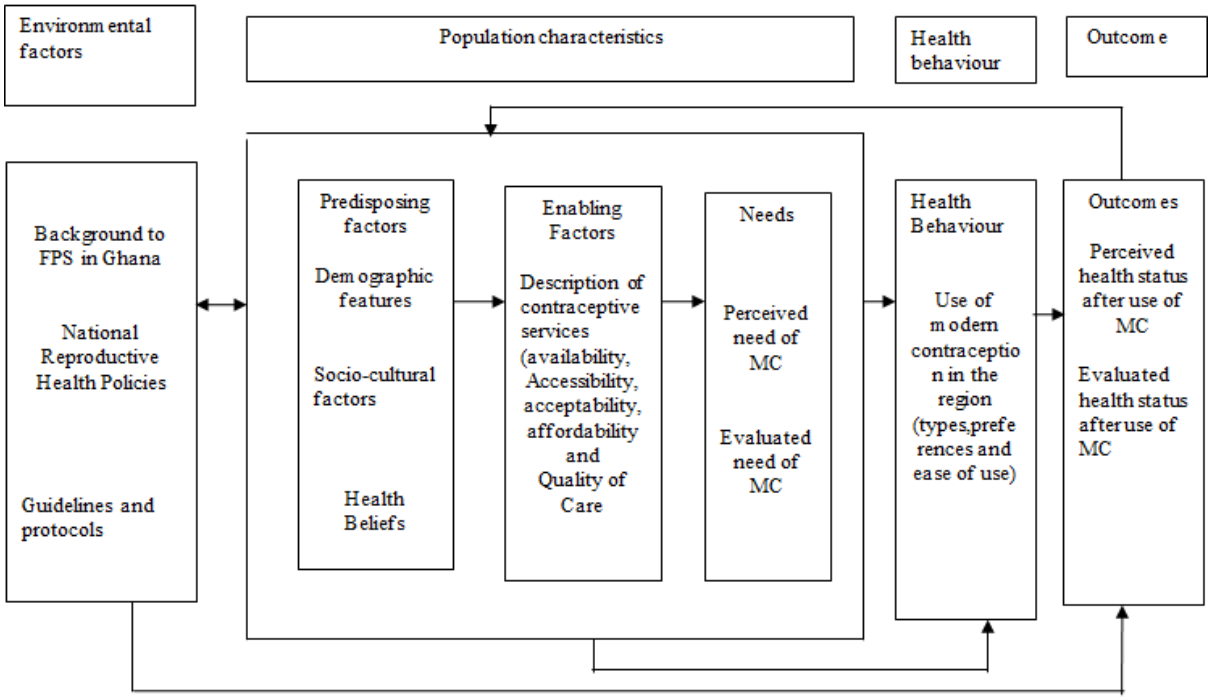
Perceived need is determined by an individual and is dependent on how they perceive their state of health and determines whether they will seek professional help. Evaluated need is determined based on the judgement of a provider after an assessment has been conducted. It is dependent on the training and competence of the provider (Anderson 1995).

A combination of environmental and population characteristics may result in personal health practices (Anderson 1995).

The outcomes of using health services in an ideal setting should result in the maintenance or an improvement in the health status. This will either be perceived by the individual or evaluated by a health professional (Anderson 1995).

This modified Anderson Behavioural Model will be used to analyse the use of modern contraception in the Northern Region of Ghana. This model was chosen as it makes provision for analysing environmental, population characteristics, health behaviours and outcomes which are all equally important in analysing the use of modern contraception.

Figure 2: Modified Anderson Behavioural Model



(Andersen 1995)

CHAPTER 3: RESULTS

In this chapter the modified Anderson model will be used to analyse the use of modern contraception in the Northern Region of Ghana.

A. ENVIRONMENTAL FACTORS

In this section, a background to contraceptive services in Ghana, policies, protocols and guidelines developed for the provision of contraceptive services will be presented.

3.1 Background to Contraceptive Services

Ghana in 1969 developed its first Population Policy. It was one of the few countries to do so in Sub Saharan Africa (NPC 1994). The National Family Planning Program was inaugurated in 1970, and set up within the Ministry of Finance and Economic planning as the implementing body of the Population Policy. The program however chalked limited successes so in 1986, a National Conference on Population and Reconstruction was held which recommended a revision of the policy to better streamline its activities and take cognisance of emerging issues such as people with disability and HIV and AIDS (Gyimah, Agyei & Coffie 2011).

The policy was revised in 1994 after the International Conference on Population and Development (ICPD) had been held. Ghana was a signatory to the global consensus reached (NPC 1994). The Program of Action developed during the ICPD sought to emphasize equality and women's empowerment and recommended a rights based approach as key to promoting health, controlling population growth and eradicating poverty (UNFPA 1994).

The revision led to the setting up of the National Population Council (NPC). Its mandate is to advise government on population issues (NPC 1994). Ministerial oversight of the family planning program was transferred to the Ministry of Health (MOH) to better coordinate its activities (Gyimah, Adjei & Coffie). The Family Health Division (FHD) of the Ghana Health Service (GHS) under the MOH is the department that coordinates and supervises the provision of Family Planning Services (FPS) in Ghana of which providing contraceptives is a part. In the Northern Region, there is a department in the Northern Regional Health Services (NRHS) that co-ordinates and supervises FPS and reports to the FHD in Accra.

For the purposes of this thesis, family planning services (FPS) is synonymous to contraceptive services, modern contraception will be referred to as contraception/contraceptives and the Northern Region will be known as the region.

3.2 Contraception Related Policies

The Government of Ghana has shown commitment to international treaties on population and development by developing appropriate policies to guide the provision of contraceptive services (MOH 2011). These policies are applicable to the whole country and help to create an enabling environment for contraceptive service delivery. Some policies which are related to population growth and contraception use are described below:

3.2.1 Ghana Poverty Reduction Strategy II (GPRS II 2006 -2009)

This strategy acknowledges the importance of managing population growth and seeks to improve access to and utilization of contraceptive services which is one of the objectives of the revised NPP. This will be achieved by posting health personnel to deprived areas, strengthening Community-based Health Planning and Services (CHPS) and instituting financing programs for the poor (NDPC 2005). However medical personnel often refuse posting to the region (GHS 2011) and this has resulted in fewer staff available to offer contraceptive services.

3.2.2 National Reproductive Health Policy and Standards (NRHPS) (2003)

Initially launched in 1996, it was revised in 2003 to accommodate Gender Based Violence (GBV) and other SRHH issues. It provides a framework to guide the training of health personnel and sets the standards of providing reproductive health services of which contraceptive services are included. It seeks to make services accessible and affordable. The policy also defines the role of stakeholders involved in the provision of services (Odoi-Agyarko 2003). It states that methods such as the IUD and implants should be available up to the sub-district level. In addition, BTL and vasectomy should be provided at district, regional and tertiary facilities. Clients are to be referred when the methods are not provided at that level or for the management of serious side effects. The policy also states that only Doctors, midwives and trained Family Planning (FP) nurses are allowed to insert and remove IUDs and Implants (GHS 2003). In the region, implants and IUDs are available only at the district, regional and tertiary levels (NRHS 2012) limiting the choice available to potential clients.

3.2.3 Adolescent Reproductive Health Policy

This policy seeks to make services attractive and friendly to young adults (10-24) and promotes their inclusion in planning services so as to make it relevant to them. It states that sexually active adolescents and young adults who present themselves for contraception should be counselled and the service provided, however abstinence should be encouraged (NPC

2000). This could account for abstinence being emphasized to the detriment of contraceptives in educational programs that students are exposed to (Rondini and Krugu 2009). It could result in providers imposing their moral values on adolescents discouraging the further use of services. This may limit the knowledge young adults have on the use of contraception and result in non-use as a result of misconceptions. The policy allows the creation of adolescent friendly areas in health facilities and the regular training of providers to ensure services are user friendly but implementation has been a problem due to lack of financing (Emmart 2010; NRHS 2012).

3.2.4 Reproductive Health Commodity Security (RHCS)

In 1999, Ghana was one of the countries to ratify the "ICPD+5"target for worldwide RHCS. By this, Government was to ensure the provision of a wide range of safe and effective contraception in all Primary Health Care (PHC) and FP facilities by 2015. It was to ensure appropriate referrals were given if a facility could not provide a method (UN 1999). This was also reiterated in the Maputo Declaration (AUC 2008). Currently all public PHC facilities in the region are providing at least condoms and pills, but stock-outs limit availability (personal correspondence with Regional Public Health Nurse).

3.2.5 Roadmap for Repositioning Family Planning in Ghana, 2006-2010

By this document contraception was repositioned to serve as a tool for promoting SRHH thus setting it forth as a priority of the Government of Ghana. Its components are policy, Behavioural Change Communication (BCC), advocacy, capacity building, institutional coordination, improving access to contraceptive services, resource mobilization, research, monitoring and evaluation. A training program was developed, but was poorly implemented due to challenges with financing (MOH 2011), thus the problems this repositioning was supposed to solve still persist. They include frequent stock outs, poor counselling skills, lack of supervision and monitoring and cultural barriers (MOH 2011). These were also listed as some of the challenges of delivering contraceptive services in the region (NRHS 2012).

3.2.6 Health Sector Gender Policy

Gender barriers to accessing health care, respect of human rights and ethics of professionals are addressed. It advocates for the reduction in gender inequities in the provision of health, Gender Based Violence (GBV), sustainable health financing and good governance (MOH 2009). Governance issues that need to be addressed include effective leadership, transparency, accountability and decentralization. Accountability of funds derived from the sale of contraception has been a challenge to service

delivery (MOH 2011). This applies to the region as the same system is used in the whole country.

3.2.7 MDG Acceleration Framework (MAF) Plan (2007-2011)

This was developed in consultation with stakeholders to identify barriers to the achievement of MDG 5 and recommend cost-effective interventions. Contraception was identified as cost effective, therefore the plan sought to enhance contraceptive security, distribution and capacity of providers. The main challenges identified in contraception use include lack of contraceptive security and method specific issues such as IUDs and female condoms (MOH 2011). There may be a need to review implementation of the plan as there are still stock outs in the region and uptake of the IUD is low (NRHS 2012).

3.3 Protocols and Guidelines

To ensure uniformity of contraceptive services some protocols and guidelines have been produced at the national level. These are listed below:

3.3.1 The Adolescent Health Strategic Plan and Guidelines

Some initiatives have been developed to cater for the SRHH needs of young people. However, such services are not widely available and maybe inadequate (Awusabo-Asare et al. 2004). Though the guidelines for integrating adolescent friendly services have been developed and disseminated (GHS 2011) full implementation has not been achieved. "Adolescent Corners" act as youth friendly places where adolescents can access contraception. The region had 10 adolescent corners in 2009, 14 in 2010 and 10 in both 2011 and 2012 in 10 sub-districts out of a total of 130 sub-districts. The numbers indicate that since this initiative started, it has not been expanded to cover the whole region. It is not surprising that the number of adolescents counselled for contraception decreased from 1,387 in 2011 to 1,043 in 2012 (NRHS 2012).

3.3.2 Medical Eligibility Criteria (MEC wheel)

This wheel enables the provider to identify the correct contraception for women with pre-existing physical or medical conditions. It helps protect women from developing medical conditions associated with especially hormonal contraceptives thereby helping to improve the quality of care (MOH 2011). This enables women to understand their options in order to make informed choices and prevent the development of medical conditions leading to the discontinuation of contraception.

3.3.3 National Family Planning Protocols

This was developed in response to the change in World Health Organization (WHO) medical eligibility criteria for contraceptive use, the increase in the variety of methods provided in the country and to guide counselling of clients (GHS 2007). It addressed concerns about the use of IUD in Human Immunodeficiency Virus (HIV) positive women and has expanded the choice of contraception for them, though the prevalence of HIV in the region has been low (0.3% in 2011) since the inception of the epidemic (GAC 2012).

To conclude this section, there are a lot of policies, protocols and guidelines in place to guide the delivery of contraceptive services in the region. However, implementing these policies has proved to be a challenge. Though adequate protocols and guidelines have been developed and are reviewed to reflect best practices, the availability and use of these guidelines and protocols at the point of service delivery may not be optimum. Protocols and guidelines were found to be present in 51% of facilities in the region compared to 83% in the GAR. Also, visual aids were found in 92% of facilities compared to 96% in the GAR (GSS et al. 2003). This may influence the quality of services and give rise to misconceptions on the part of providers who may not be using the right protocols and guidelines.

B. POPULATION CHARACTERISTICS

In this section, the characteristics of the population of the region that may affect the use of contraception will be analysed. These include predisposing, enabling and need factors.

3.4 PREDISPOSING FACTORS

3.4.1 Age

Age has been cited as a factor determining the use of contraception and studies have shown that increasing age is associated with an increase in its use (GSS, GHS & ICF Macro 2009; Nketia-Amponsah 2012). The region has 64% of its total population being young adults in the 15-24 age groups and is the highest in the country (GSS 2013). Some barriers that have been identified to the use of contraception by young unmarried people are the judgemental attitude of health personnel, cost, the absence of privacy, inconvenient opening hours of the clinic and the possibility of meeting providers who are not of the same sex (Awusabo-Asare et al. 2006). Also young people may not know how to use contraceptives effectively. This was illustrated when some youth started coitus before wearing a condom (Rondini and Krugu 2009).

3.4.2 Education and Literacy

It has been documented that women of high educational background in the region and Ghana as a whole are more likely to use contraception (Tawiah 1997; Addai 1999; Bawah 2002; GSS, GHS & ICF Macro 2009; Adanu et al. 2009; Nketia-Amponsah 2012) and know a larger number of modern methods (Aryeetey, Hindin and Kotoh 2010). As more women stay longer in schools and delay their marriages, sexually active women may use contraception to delay child birth. This effect of prolonged education on fertility regulation with the use of contraception in the region may be low as there is a low level of education and a high number of school drop-outs, especially for females (GSS, GHS & ICF Macro 2009). During the 2010 census, 56.6% of all inhabitants in the region had never attended school out of which 63% were females compared to the GAR where 14% of females had never attended school. Literacy levels are low with approximatly 74% of women and 39% of men who can not read or write (GSS 2013). This has implications for the development of strategies to educate the inhabitants on contraception. Information Education and Communication (IEC) material design would have to be adapted to suit the needs of the region.

3.4.3 Employment

Employment in the formal sector has been found to be significantly associated with the use of contraception (Addai 2000; Adanu et al. 2009) as such women will not want frequent maternity leaves disrupting their careers. Most women in the region are employed in the informal sector (GSS, GHS & ICF Macro 2009) and this may be a reason for not using contraception. Poverty levels in the region are high (World Bank 2011) and has been found to correlate with the low use of contraception (GSS, GHS & ICF Macro 2009).

3.4.4 Marital status, type of relationship and parity

Marriage as an institution is highly valued in the region. Marriage occurs between two families who negotiate a bride price to be paid by the grooms' family. This may take the form of money, cloth, livestock etc. (Aborampah cited in Frost and Dodoo 2010). Payment of the bride price has been shown to reduce a woman's reproductive autonomy as the payment is in exchange for her reproductive and domestic abilities (Adongo et al. 1997; Horne et al. 2013). Marriage in the African sense is finalized when the union is blessed with children (Dyer et al. 2004; Teye 2013). They are essential in perpetuating the family lineage, inheritance practices and in helping on the farm especially, male children. Male children are valued as they are used as a measure of a man's worth (Tabong and Adongo 2013). Fertility may not be regulated with contraception for the sole purpose of getting a male child.

During the 2010 census, 59% of women were married in the region compared to 39% in the GAR and were also more likely to use contraception to space rather than limit births (GSS, GHS & ICF Macro 2009). Women who had not yet had children were not using contraception, with its use increasing with an increase in parity. The census also revealed that 39% of inhabitants had never married and 0.8% is in an informal union (GSS 2013). This would mean that this proportion of the population may potentially not have been targeted by FP programs as premarital sex is not approved in traditional African societies (Kiole, Were & Onkware 2012). Ensuring that contraceptive services are friendly to unmarried sexually active couples including the youth may increase its use as they were more likely to use contraception compared to married women (Teye 2013). They however used short-acting methods such as the condom (GSS, GHS & ICF Macro 2009) which have a high failure rate and may still have unintended pregnancies.

3.4.5 Ethnicity

There are 5 major ethnic groups in the region with the Mole-Dabgani forming the majority. This ethnic group has traditionally been known for their long duration of breast feeding and postpartum abstinence (Adongo et al. 1997; Parr 2003) and may not perceive a need to use contraception. However, ethnicity was not demonstrated to be a significant indicator of contraceptive use among the Mole Dabgani compared to the Akans (Addai 1999).

3.4.6 Socio-cultural Factors

Gender Roles, Values, Norms and Tradition

Gender generated inequities with respect to power exist widely in Ghana (Bawah et al. 1999; Mayhew 2000; GSS, GHS & ICF Macro 2009). Women's empowerment has been defined as the manner in which individuals perceive their abilities, rights and options (Gutierrez et al. cited in Gutierrez et al. 2000). The region is a patriarchal society and practices a patrilineal system of inheritance. Men exercise control over the health seeking behaviour of women, children and the use of community and family resources (Adongo et al. 1997). Women are seen as the means of "building ones house" and this role is fulfilled when they give birth especially to male children (Bawah et al. 1999). Men are the decision makers and women are not allowed to use contraception without their husbands consent (Ezeh 1993) as the purpose of marrying them would have been defeated. Failure to do so may result in GBV and to avoid this some women adopt the covert use of contraception (Bawah et al. 1999).

Culturally, it is desirable to have a large number of children in the region especially as most inhabitants are engaged in subsistence farming which

is labour intensive. Having more children is valued as they can help on the farm and serve as a source of social security in old age (Adongo et al. 1997). Traditionally women in the region practice prolonged abstinence and breast feeding after child birth which enables them to space their births to some extent (Adongo et al. 1997). Women who adhere to this tradition may not perceive the need to use contraception.

Social Networks

Social networks have been found to determine the use of contraception either positively or negatively by both men and women in areas of high fertility and its effect may be through social influence and social learning (Bongaarts et al. 1996; Behrman et al. 2002). The choice of contraception made by members of social networks is determined to a large extent by information provided by other members, than through the exertion of influence (Behrman 2002; Feyisetan et al. 2003). However in Northern Ghana, social networks especially that of men was found to positively affect the use of contraception by social influence. Encouraging spousal communication was the pathway identified (Avogo et al. 2008) and has been documented to increase the uptake of contraception (Bawah 2002). Social networks may serve as a forum for the dissemination of both positive and negative information about modern contraception and could be explored in promoting the use of contraception.

3.4.7 Religion and Polygyny

Polygyny is common in Ghana (Gyimah 2009). As stated earlier in the profile of the region, 60% of the inhabitants practice the Islamic Religion and 16% practice the Traditional Religion. In both instances, polygyny is allowed. As children in Polygynous families are more likely to die in later childhood (Gyimah 2009), it may create a perverse incentive for women to deliver more with the hope that some will survive. The region had the highest percentage of women in a Polygynous marriage (38%) compared to 6.3% in the GAR (GSS, GHS & ICF Macro 2009) and may not use contraception. Also, Polygynous marriages in a rural area in Malawi were found to be associated with less use of contraception (Baschieri 2013).

The Islamic Religion has also been associated with low use of contraception in Ghana even in marriages where monogamy is practiced (GSS, GHS & ICF Macro 2009; Adanu et al. 2009). However, other authors have postulated that the significant relationship between the religion and low use of contraception may be a fallacy. This is because, the predominant religion in the region is Islam, and the region is underdeveloped and mostly rural with low access to contraceptive services. The South has a large number of Christians but also easy access to contraceptive services. Thus difficulty in accessing contraceptive services as a result of geographic location and not religion per say may account for the differences in use (Gyimah, Takyi & Addai 2006).

Believers of the Traditional Religion who constitute 16% of inhabitants, more than Muslims or Christians were less likely to use contraception (Parr 2003; Doctor, Phillips & Sakeah 2009) and cited spousal opposition as a reason (Parr 2003).

3.4.8 Health Beliefs (Misconceptions about contraception)

Acceptability of contraception is strongly associated with intentions to use in the future. Among women who approved of contraception and were currently not using, infrequent coitus and the desire for more children were cited as reasons for non-use (GSS, GHS & ICF Macro 2009; Machiyama and Cleland 2013). Misconceptions about the effects of contraception on the human body will influence its acceptability and has been identified as one of the reasons for non-use (GSS, GHS & ICF Macro 2009; Hindin, McGough & Adanu 2013).

Disapproval of contraception may occur as a result of its association with promiscuity, disease and infertility (Adongo et al. 1997; Mayhew 2000; Blanc and Grey 2002; Tabong and Adongo 2013). In the region, approximately 23% (338 women) agreed that its use could make you promiscuous while 17% said they did not know (GSS, GHS & ICF Macro 2009). However, most adolescents in Ghana did not associate contraceptive use with promiscuity (Awusabo-Asare et al. 2006). Another belief is that it interferes with the normal functions of the body (Govindasamy and Boadi 2000; Osei et al. 2005; GSS, GHS & ICF Macro 2009; Abdul-Rahman, Marrone & Johanssen 2011, Hindin, McGough & Adanu 2013) and that methods such as the IUD hurt their partners or migrate up into the stomach during coitus (Osei et al. 2005).

Another belief was that women in Ghana required blood tests before they could use contraception (Osei et al. 2005; Hindin, McGough & Adanu 2013) and this may serve as a barrier to the use of over the counter contraceptives such as the Oral Contraceptive Pill (OCP) and the emergency contraceptive (EC)(Hindin, McGough & Adanu 2013). Other beliefs found to correlate with the use of contraception include the association of vasectomy with impotence (Teye, 2013) and hormonal methods causing fibroids in women because of cessation of menstrual flow (Hindin, McGough & Adanu 2013).

3.5 Enabling Factors

This section analyses how service delivery, management and funding of contraceptive services in the region affects the availability, accessibility, affordability, acceptability and quality of services. These may affect the use of contraception.

3.5.1 Service Delivery

Contraception in Ghana including the region is provided at three levels (Tawiah 1997):

1. **Ghana Health Service facilities which are public, private for profit and quasi government facilities such as mission facilities**.

   These facilities constitute the major providers of contraceptive services in the region. Public health facilities, health centres and health posts were popular (87%) for users of injectable (ICF Macro 2010) which is the contraceptive of choice for women in the region (NRHS 2012). However facilities managed by the Catholic Church places emphasis on the rhythm method (Odoi-Agyarko 2003).

2. **Non-Governmental Organizations (NGOs)** such as Planned Parenthood Association of Ghana (PPAG).

3. **Pharmacies and Chemical shops.**

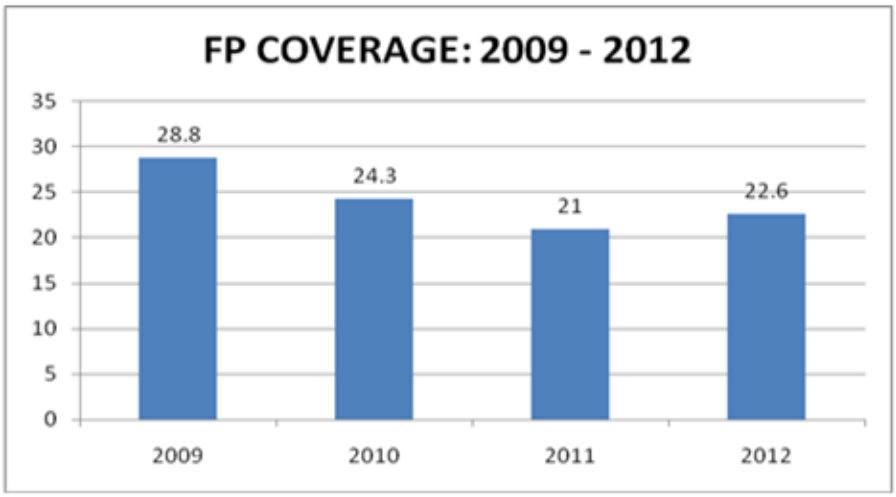
The accessibility and availability (Olivier 1995; Magnani 1999; Prata 2009) of both public and private health facilities will determine the level of use of contraception. To make contraceptive services accessible and available in rural areas as this is where approximately 69% of inhabitants of the region live, the Community-Based Health Planning and Service (CHPS) were implemented in Ghana in the year 2000. This program pairs Community Health Volunteers (CHV) with trained Community Health Officers (CHO). Districts are divided into zones run by the pair and it was hoped to bring health services including contraceptive services closer to the communities where health facilities are not available thereby decreasing inequities in healthcare (GHS 2005).

CHOs are based in Community Health Compounds (CHC) and are supposed to conduct home visits and organize outreach services to provide contraception. They are authorised to provide condoms, OCP and injectable (Awoonor-Williams et al. 2013). However due to their workload they end up organizing static clinics in the CHC and organize very few outreaches limiting accessibility to contraception. CHV live in the communities or sub-districts and provide condoms and information on contraception, and refer clients who prefer other methods to the CHO. Clients who prefer IUDs and Implants are also referred to the next level by the CHO. Stock outs of commodities are frequent as it takes a long time for it to be replenished (Ntsua et al. 2013). The most recent, was the non-availability of Norigynon (personal correspondence with the Regional Public Health Nurse). This limits the variety of methods available at the community level. In Morocco, availability of a variety of methods close to

communities was detected to correlate with the use of contraception (Magnani 1999).

The number of functional CHPS zones increased to 181 in 2012 from 150 in 2011, though in some zones CHPS compounds have not been built while in others, some CHOs are not at post (NRHS 2012) despite the fact that they are motivated to accept rural postings by a system that allows them to qualify for midwifery training a year ahead of their colleagues working in health facilities (Ntsua et al. 2012). Coverage of contraceptive services has been on a downward trend from 2008 and influences availability of services. This limits the choice of contraception to that available in pharmacies and chemical shops. Coverage increased in 2012 as shown in Figure 2 below and could be attributed to the increase in the number of functional CHPS zones despite the challenges mentioned above. An increase in the coverage of services will increase availability and geographical accessibility of contraceptive services.

Figure 3: Trends in contraceptive services coverage



(NRHS 2012)

The Northern Region as stated earlier has the highest midwife to WIFA ratio in Ghana. The midwife to WIFA ratio in 2011 increased to 1:2,050 from 1:1,981 recorded in 2010. The national average of the midwife to WIFA ratio for 2011 was 1:1,478. Sustaining the human resource needs is a challenge as health personnel often refuse postings to the region (GHS 2011). Midwives in the region are available in health centres and hospitals where clients who prefer LTRM can be referred by the CHOs, but not all of them have been trained to offer these methods (NRHS 2012). It is recommended that clients be counselled on the contraceptive methods available, how it is used and the side effects associated with its use (GHS 2007). Adequate counselling on the side effects has been found to be associated with lower rates of discontinuation (Cotton et al. 1992).

Therefore enough midwives and CHOs are needed to be able to counsel clients effectively. An estimated 72% of female respondents (441 women) in the region had neither discussed the use of contraception with a fieldworker such as a CHO or CHW nor with staff at a health facility for a year prior to the survey while 19% had discussed contraception with a field worker (GSS, GHS & ICF Macro 2009).

Also competent providers are needed to deliver LTRM otherwise the choice of contraception available to the client is limited. It has been documented that, non-hormonal methods are not available in some facilities in contrast to the policy, with only 36% of all health facilities in Ghana offering the IUD (GSS et al. 2003). Quality Health Partners (QHP) an NGO and the GHS conducted a survey to determine the competencies of service providers in insertion and removal of IUDs and implants in Ghana. Twenty-nine service providers in 37 districts were surveyed. Findings were that less than one-third had been trained in the last three years and competencies were less than desirable (QHP and GHS 2009b). A similar survey in 2008 in 13 districts discovered that of health personnel that are mandated to provide contraception, 28% could provide implants, 14% could insert and remove IUDs, 2% and 1% could perform mini-laps for BTL and vasectomy respectively (QHP and GHS 2009a). These surveys were carried out in the southern part of Ghana with better infrastructure and more competent staff. The situation may be worse in the region.

At the end of 2012, the staffs available to potentially provide contraception, though not all of them may have been trained is presented in the table below:

Table 3: category of staff and number available in the region

Category of Staff	Number
Obstetrician/ Gynaecologist	5
Medical Practitioners	21
Public Health Nurses	35
Midwives	293
Community Health Nurses/CHO	505
Total	859

(NRHS 2012)

Non-Governmental Organization

There are 2 facilities of the PPAG in the region and they offer the full range of contraceptive services at a subsidized cost (NRHS 2012).

Private Pharmacies and chemical Shops

The Ghana Social marketing Foundation (GSMF) provides at a subsidised cost, condoms, vagina foaming tablets and OCP through private retail outlets which include pharmacies and chemical shops. These outlets provide contraception to a little over half of all current users in Ghana and they distribute only over the counter contraceptives. During the 2008 GDHS, 71% of condom users and 84% of OCP users in Ghana obtained contraception from private pharmacies and chemical shops who sell at a higher price (GSS, GHS & ICF Macro 2009). Separate statistics for the Northern region are not available. Though private providers are a significant source of contraception, they are not included in training programs organised by the public facilities (Emmart 2010) and may not effectively counsel clients on the methods they provide.

3.5.2 Funding

Government's commitment has not ensured RHCS as funds released are not adequate (MOH 2011). This was evident between 2003 and 2009 where funding from both Government and donors was erratic and ranged between $4,470million in 2005 to $8,750 million in 2007. Government's contribution during this period showed a downward trend and in 2009 did not contribute towards the procurement of contraception (Emmart 2010).

Funding of contraceptive services is dependent to a large extent on donors which are not sustainable and results in frequent stock-outs affecting the availability of contraception. Shortages of contraception especially for LTRM occur in the public sector for various reasons at different levels. Erratic funding at the national level, transportation difficulties at the regional level and challenges with stock and financial management at the health facility level have been cited (MOH 2011). Frequent interruption in the supply of contraception may result in non-use.

3.5.3 Affordability

Imported contraceptives whether they are government procured or donated are taxed (MOH 2011). This would increase the cost of contraception though it is subsidised and may be a potential barrier as users pay approximately 10% of the cost of contraceptives (PPME 2008). A median fee of 20 cents is charged for OCPs, injectable and male condoms (ICF Macro 2010) and approximately 3.50 Euros for the IUD. Nevertheless, some women and female adolescents in the region considered this a barrier to use (Bawah et al. 1999; Abdul-Rahman, Marrone & Johanssen 2011) compared to very few women in the GAR (Aryeetey, Kotoh & Hindin 2010).

3.5.4 Acceptability of Service and Quality of Care

Acceptability of the service also influences access to contraceptive services. Providers who are young, of the opposite gender and a long waiting time at the health facility were identified as barriers to use of contraceptive services (Aryeetey, Kotoh & Hindin 2010).

High quality of care improves the uptake and continuation of contraception (Jain 1989; Olivier 1995; Mensch, Arends-Kuenning & Jain 1996) and helps to recruit new users (Jain 1989). The availability of equipment to provide services and privacy of counselling rooms are some structural factors that affect quality of care (Donabedian 1966). During the 2002 Ghana Service Provision Assessment Survey (GSPAS), 6% of facilities (41 facilities) surveyed in the region met all the requirements to conduct a good pelvic examination compared to 41% (28 facilities) in the GAR. With regards to the processes described by Donabedian (1966), 7% of facilities in the region had items such as sterile gloves to use during procedures compared to 37% in the GAR (GSS et al. 2003).

Quality of care can be measured with regards to the number of methods available (Jain 1989; Bruce 1990). In the region, 87% of facilities offered only temporary methods such as condoms and pills with 6% offering both LTRM and permanent methods such as BTL and vasectomy compared to 94% and 11% respectively in the GAR (GSS et al. 2003).

3.5.5 Management of Services and Activities to increase Contraceptive Use

Contraceptive services in the region are provided at a fee. The fees are forwarded to a return-to-projects account at the national level through a complex system which involves retaining and forwarding a fixed percentage of the money at the facility, district and regional levels. There are delays, errors and under reporting associated with this system. The contraceptives logistics system is based on this resulting in frequent stock outs of commodities due to the problems inherent in this reporting system (Emmart 2010).

Contraceptive commodities are transported by road from the Central Medical Stores in Accra to the Regional Medical Stores in Tamale and from there distributed to the various districts. Facilities then collect their supplies from the districts. There are challenges with arranging transportation sometimes (NRHS 2012). To ensure availability of contraceptives, a delivery schedule drawn up in 2002 and endorsed by all stakeholders is yet to be implemented (MOH 2011).

Activities to increase contraceptive use

The female condom was re-launched in 2012 and radio educational programs were held in 2012 in three major languages Dabgani, Gonja and English (NRHS 2012).The limitation in the variety of languages used in education would mean that some inhabitants would not understand the message as there are 7 languages which are excluded. Radio emerged as the most popular medium of messages on contraception. The use of radio as a means of promoting the use of contraception in the region, reached 41.2% (467) of females and 60.3% (435) of male respondents (GSS, GHS & ICF Macro 2009). More languages may need to be included to reach a wider audience. Teenagers (15-19 years) in Ghana were disadvantaged with regard to exposure to promotional messages with 39% of 911 male respondents and 44% of 1025 female respondents not exposed to any messages for some months prior to the survey (GSS, GHS & ICF Macro 2009) and may contribute to misconceptions they have about contraception.

To make the use of contraception more acceptable, community meetings are an essential component of the CHPS initiative. An analysis of the fertility impact of the Navrongo project mentioned that distributing contraception without addressing the issues of men has no effect (Phillips et al. 2012). Attempts have been made in the region to involve men in contraceptive services by encouraging them to utilize services themselves or accompany their partners. This is done during community durbars and meetings. However during 2012, three community meetings were held in three districts to discuss contraception out of 20 districts (NRHS 2012). This lack of a variety in and inadequate promotional campaigns may be a factor contributing to the non-use of contraception. This was demonstrated in other parts of the country where a campaign composed of mixed methods run in 37 districts resulted in an 80% increase in uptake of LTRM, though services were interrupted occasionally (QHP and GHS 2009b). Table 3 below shows the number of male clients who utilized contraceptive services themselves or accompanied their partners.

Table 4: Trend of male involvement in contraceptive services

	2009	2010	2011	2012
MALE SERVICES/ATTENDING SINGLY				
FP	10717	8531	9857	10231
Condom	11484	7871	7687	8367
ACCOMPANYING SPOUSE				
FP	11927	9104	10103	16916
Emergency Contraception	47	43	44	51

(NRHS 2012)

The data displayed shows that male involvement was initially high in 2009, decreased in 2010 and 2011 and increased again in 2012. The increase in 2012 coincides with the increase in CHPS zones and suggests that increasing coverage of services activities aimed at involving men may increase the use of contraception.

3.5.6 Physical Environment and Geographical Accessibility

The inability to access contraceptive services is one of the reasons cited for non-use (Abdul-Rahman, Marrone & Johanssen 2011). As described earlier, some parts of the region are difficult to reach and this limits geographical accessibility as transportation is inadequate. The CHPS initiative which makes some information and contraception available to the inhabitants through the use of CHOs and CHVs, deliver a limited number of methods, reducing the options of couples who may need it. As mentioned earlier, the workload of some CHOs was found to limit the number of outreaches organized (Ntsua et al. 2012) making accessibility a problem in some parts of the region.

3.5.7 Knowledge about Contraception

The behavioural change model postulates that knowledge and awareness are an essential step in behavioural change (Prochaska and Wayne cited in Awusabo-Asare et al. 2006) and is important in the decision to use modern contraception (Awusabo-Asare et al. 2006). The region is mainly rural and knowledge of contraception is lower among women living in rural areas than in the urban areas (GSS, GHS & ICF Macro 2009) with most respondents knowing about methods with higher failure rates such as condoms, OCP and injectable (Aryeetey, Kotoh & Hindin 2010). This may result in non-use or discontinuation of contraception if contraceptive failure occurs as they may not be aware that there are other methods available. It may also be difficult to access more effective methods as only condoms, OCP and the injectable are provided at the community level.

Also, knowledge of what to do in the event of side effects occurring was found to be low as health providers were more likely to inform clients about side effects than what to do if it occurs (GSS, GHS & ICF Macro 2009). There is also a paucity of knowledge on how contraception works giving rise to misconceptions that affect its use (Hindin, McGough & Adanu 2013). Knowledge about emergency contraception was found to be low in Ghana with 37% of 4,058 men and 35% of 4,916 women mentioning it. Its use was however higher in sexually active unmarried women (GSS, GHS & ICF Macro 2009).

3.6 NEED FACTORS

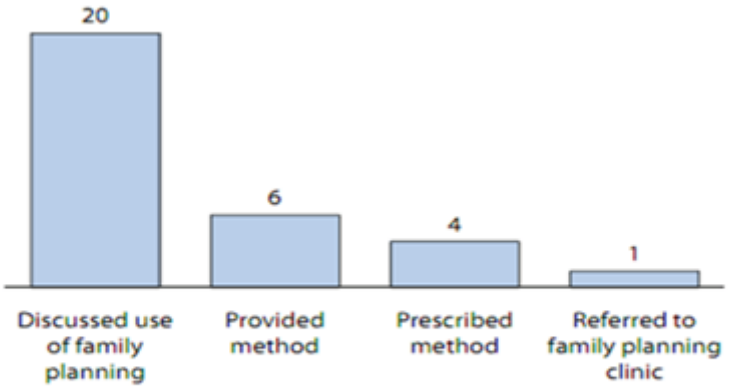
3.6.1 Perceived Need of Contraception

The perception that using contraception to regulate their fertility will improve maternal and child health resulting in a healthier workforce and better educational outcomes may prompt its use. Most respondents thought using contraception to space births was good for their health (GSS, GHS & ICF Macro 2009). However, the perception that they are at low risk of getting pregnant, either because of infrequent coitus, post-partum amenorrhoea or subfertility has been mentioned to be associated with the non-use of contraception (Sedgh et al. 2007; GSS, GHS & ICF Macro 2009). The practice of post-partum abstinence and prolonged breastfeeding in the region may result in the perception that they are not at risk of becoming pregnant. Another study discovered that young adults thought the avoidance of contraception would improve their sexual lives with more females than males thinking so (Rondini and Krugu 2009).

3.6.2 Evaluated Need of Contraception

An evaluated need based on the judgement of providers may affect the use of contraception and may act through the misconception of providers who determine which contraceptive is good for which client based on characteristics such as age, parity, marital status and spousal consent (Stanback and Twum-Baah 2001; Osei et al. 2005). This may also occur when every opportunity presented to initiate women on contraception is not utilized. A misconception of providers resulted in the practice where women who had received post-abortion care were not offered contraception before discharge but were referred to an FP clinic at the 2 week visit (GSS, GHS & ICF Macro 2009; Schwandt et al. 2013). This happened because the providers thought that contraceptives could not be initiated right after an abortion as the client needed to recover, though literature proves otherwise (Schwandt et al. 2013) and is mentioned as one of the High Impact Practices of family planning (USAID 2011). Figure 4 below shows the outcome of 564 clients following an abortion during the Ghana Maternal Health Survey. The majority of clients (69%) did not receive any of the services shown by the graph and presents a missed opportunity to initiate contraception.

Figure 4: Bar chart showing the percentage of women who had counselling on family planning following an abortion

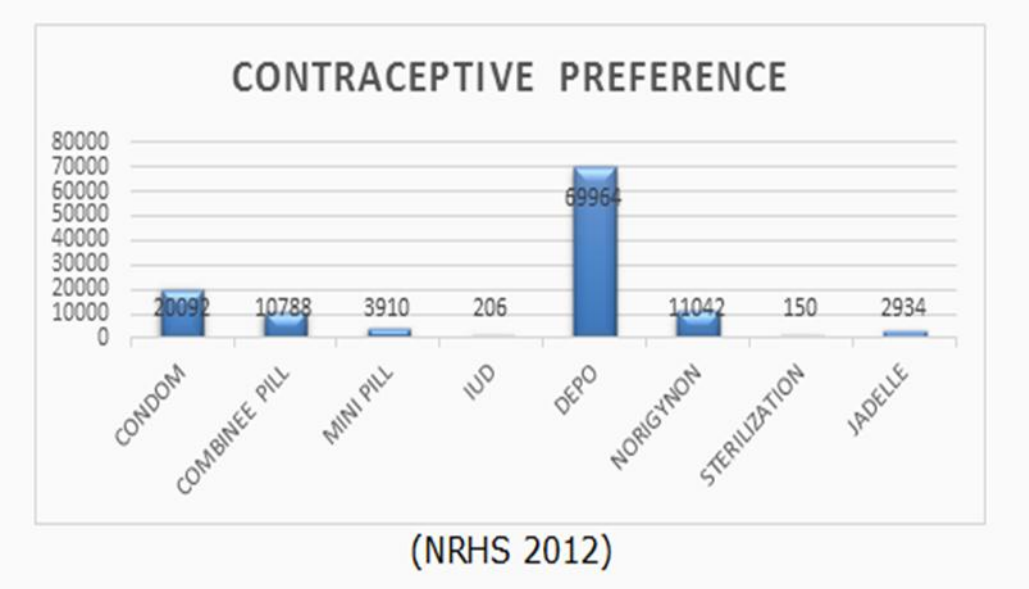


(GSS, GHS & ICF Macro 2009)

C. HEALTH BEHAVIOUR

3.7 Use of Contraception

Figure 5: Bar chart showing numbers of acceptors of contraception



(NRHS 2012)

It has been mentioned that in areas of low use of contraception, such as the region, covert use of contraception may be high (Biddlecom and Fapohunda 1998). In the region, covert use has been mentioned (Bawah 1999). The injectable is the preferred choice among women in the region as shown in figure 5 above and is one of the contraceptives mentioned that can be used covertly (Wadhams 2010). This is may be one of the

reasons why it is the method of choice in the region. This would mean that users may have to discontinue when side effects such as menstrual irregularities occur as this may be noticed by their partners. Vasectomy services are not utilized though some men were counselled about it (NRHS 2012).

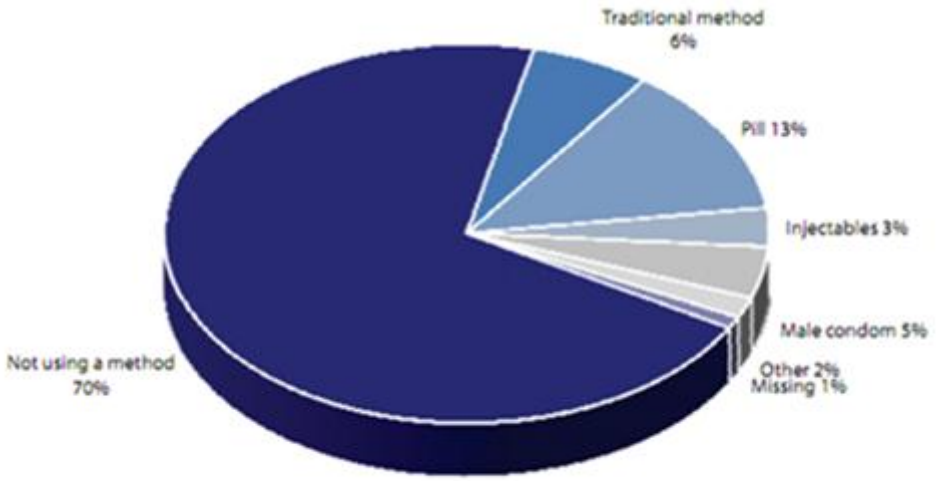
D. OUTCOMES ASSOCIATED WITH THE USE OF CONTRACEPTION

3.8 Perceived health status

Side effects associated with the use of contraception, was the most cited reason for not using it among past users (Parr 2003, GSS, GHS & ICF Macro 2009, Abdul-Rahman, Marrone & Johanssen 2011; Teye 2013). This may be because they did not think the state of their health was improved by the occurrence of these side effects. Some side effects identified include abnormal menstrual periods, infertility and reproductive tract infections. It has been mentioned that effective counselling decreases the discontinuation of contraception when side effects occur (Cotton et al. 1992). However, it has also been established by other authors that this has not proved effective (Halpern et al. 2011). To avoid the issue of side effects which occurs mainly with hormonal methods, non-hormonal methods such as the IUD and sterilization which have fewer side effects could be promoted (Machiyama and Cleland 2013)

Contraceptive failure has also been identified as a reason that affects the use of contraception. Sterilization is a method with a low rate of failure, however in recent times, women are opting for methods with higher failure rates than sterilization which could potentially increase rates of contraception failure and result in unintended pregnancies (Darroch and Singh 2013). A failure rate of 21% (564 women) was found to be associated with the use of contraception in Ghana (GSS, GHS & ICF Macro 2013) and could be attributed to the typical use of contraception. Even with correct and consistent use, hormonal methods such as OCPs and injectable are less effective (Winner et al. 2012) than LTRM and PM which have low failure rates (Mansour, Inki & Gemzell-Danielsson 2010). Effective counselling may be needed to ensure that such methods are used correctly and consistently to prevent the occurrence of contraceptive failure resulting in unintended pregnancies. The inconvenience associated with the use of some methods has also been mentioned as a reason for non-use (Govindasamy and Boadi 2000, Abdul-Rahman, Marrone & Johanssen 2011; Teye 2013).

Figure 6: Pie chart showing contraceptive method used at the time of pregnancy in women who had an abortion.



(GSS, GHS & ICF Macro 2009)

The pie chart shows the percentage of women who were using contraception which failed to prevent a pregnancy.

3.9 Evaluated Health Status

This is based on the professional judgement of a competent provider and may be the basis of discontinuing the use of a method. However it is difficult to find literature addressing this and requires empirical research to answer this section.

3.10 Successful Interventions that have worked elsewhere

3.10.1 Bangladesh

The Matlab Project implemented in a rural part of Bangladesh was chosen because of the similarity to the region in terms of accessibility to contraceptive services, social and economic development and Islam being the predominant religion. The project initiated in 1977, offers a wide variety of contraception including OCPs, condoms, foam tablets, Injectable, menstrual regulation, BTL and vasectomy. Management of side effects associated with its use was also provided (Nag 1992). The project uses community health workers who reside in or near their working areas, lady family planning visitor and a senior health assistant who are paid staff to provide the services mentioned above (in addition to encouraging and motivating their partners) at the community and sub-district level. This improved availability, accessibility and a wide variety of methods to choose from. This resulted in an increase in the CPR from less than 9% in 1977 to 46% in 1985, to 57% in 1990 (Nag 1992) and 46% in 2007 (NIPORT, MA & ICF Macro 2009) among married couples. Though the CPR

has decreased in 2007, the project has had some lasting effects. The CHPS initiative implemented in Ghana is based on this model with a few exceptions. This will be analysed in the discussion section.

3.10.2 Rwanda

Among currently married women in Rwanda, contraception use increased to 52% in 2010 from 17% in 2005. The injectable is the method of choice and accounts for about 50% of all use (Westoff 2013). This was achieved by the Government opening secondary health posts close to catholic health facilities as these facilities were not providing contraceptive services. At these health posts, clients are educated on misconceptions and myths about contraception. Health personnel are also motivated to provide good services and register more acceptors of contraception as they are rewarded by a performance-based financing system (Wadhams 2010). However, anecdotal sources claim this system is not sustainable in Rwanda because of the huge financial input it requires.

Critical factors in Rwandas' success story is the strong political commitment to improve maternal health through the use of contraception and the fact that Rwanda is a small country with few remote areas, so contraceptive services are easy to deliver (Wadhams 2010). Another is that contraceptive services are delivered at no cost to the clients with the formation of "Mutuelles" (an insurance scheme). Contraceptives are distributed through a community based distribution system and the private sector and access to IUDs and Implants at the health centre level was improved (Solo 2008).

This may be difficult to implement in the region because of the dispersed nature of settlements with few health posts and lack of financing to implement a performance-based financing system. However strengthening governments commitment by releasing adequate funds to ensure commodity security and including the contraceptive services in the NHIS benefits package, training and recruiting more community health officers and volunteers, establishing more CHPS compounds and making implants and IUDs available at the health centre level is possible with the right training.

CHAPTER 4: DISCUSSION

This study analysed the use of contraception in the Northern Region of Ghana. Some environmental factors found to affect its use include policies that encourage abstinence and limit the provision of certain methods to certain cadres of staff. Population level characteristics found include a youthful population, low education and literacy levels, low levels of employment, high levels of poverty, unequal power relations between couples and misconceptions about contraception. Service delivery issues such as inadequate funding resulting in stock-outs, inability to access and afford services, inadequate activities to generate and sustain the use of contraception and a limited choice in rural areas where most inhabitants of the region live were also identified. The low perception of the risk of becoming pregnant and Outcomes such as the occurrence of side effects was also identified. The injectable was found to be the preferred choice. Successful interventions in Bangladesh and Rwanda were described.

4.1 Environmental factors

The National Reproductive Health Policy and Standards states that IUDs and implants should be available at the sub-district level. But as stated earlier, these are available at the district level. Clients who wish to use these methods are referred to the appropriate level, but as demonstrated by Piot in 1967, not all clients will act upon referrals to achieve the desired results. It also states that only certain cadres of staff are authorised to insert and remove IUDs and Implants. With the shortage of such personnel in the region, this should be amended so that other cadres of staff can be trained to provide these methods. This will improve accessibility and widen the choice of methods available at the community level. Clients who would have discontinued the use of contraception because of side effects can choose to switch to another method that is readily available. Also the adolescent reproductive health policy which encourages abstinence has to be amended as it enables some providers to deter young adults who require contraception from accessing contraceptive services.

4.2 Population Characteristics

The region has a large proportion of its population being young adults. The unmarried proportion of this group who are sexually active and may not have access to contraception because of unfriendly services or the judgemental attitude of staff is a cause for concern.

Another significant finding is the low level of education and literacy in the region. This has important implications as findings showed that increasing levels of education are correlated with the uptake of contraception. Low levels of literacy would mean that educational materials and campaigns

would have to be specifically designed with the level of education, literacy and diversity of languages in mind. Innovative ways of reaching people with messages must be developed.

Unequal power relationships were found to be associated with non-use of contraception. Men felt threatened about losing control of their households and sometimes resorted to violence when covert use by their spouses was discovered. Thus activities like re-launching the female condom, which is said to sexually empower women, without addressing the power dynamics in relationships may limit its uptake. Covert use however presents an opportunity to improve the uptake of contraception as it implies that women who do this find it acceptable and perceive their need. Addressing communication between partners was found be an effective strategy to improve the use of contraception.

Though knowledge about contraception is high, it does not translate into use because of the high fertility desires of its inhabitants and the misconceptions associated with its use. Improving the counselling skills of providers and intensifying educational activities to dispel the myths and misconceptions associated with contraception may improve its use. With the relative improvement in infant mortality and the mechanization of farming that the SADA is implementing, promoting the benefits of a small family together with improving education and employment opportunities may provide a different sense of accomplishment other than the number of children one has. Promoting a small healthy family is necessary to reduce high fertility levels as the use of contraception can increase without affecting high fertility levels (Bledsoe et al. 1994). This is important because in the region spacing rather than limitation of births was a reason for using contraception. Considering the youthful population who have started childbearing, they may have enough reproductive life to attain their high fertility desires even with an increase in the use of contraception. This would be an interesting area for future research when the use of contraception in the region has been increased.

The use of contraception was also found to be related to the influence of peers in networks when in other areas of high fertility, social learning was the predominant means. This could mean that targeting influential members of communities in the region such as chiefs, religious leaders and social activists with the right information and knowledge may stimulate community dialogue on the use of contraception and eventually increase acceptability.

4.3 Service Delivery

Though Government is committed to ensuring RHCS, it has not translated into the release of required funds. An interesting finding was the fact that Governments contribution towards procurement is minimal and in 2009, did not contribute at all towards the program. Funding is donor driven and

not reliable resulting in frequent stock-outs. With the current global economic downturn, this may get worse as donor countries are cutting back on financial assistance to countries such as Ghana. The lack of contraceptive security may have contributed to the low use of contraception in the region. According to the 2008 GDHS, most youth and unmarried couples use condoms purchased from private retailors. Removing the import levy placed on contraceptive commodities may lower the price in the private sector and encourage the use of over the counter contraception by unmarried couples. The mechanism of accountability of funds accrued from the sale of contraception should be reviewed as the purpose for which it was instituted is not being fulfilled as the retained amount by facilities is to be used in replenishing stocks from the local market when stock-outs occur.

The delivery of contraceptive services through the three levels described above if functioning maximally would increase access to contraception. Services in the metropolis and district capitals are available and easily accessible. The problem is accessibility in the remote areas with poor transportation and poor roads where most inhabitants of the region live. The CHPS initiative was scaled up from the Navrongo Project (Awoonor-Williams et al. 2013) which was modelled according to the Matlab Project in rural Bangladesh. However during the scale up, the social component of the Matlab and Navrongo project which were instrumental in increasing the use of contraception was not incorporated successfully (Phillips 2012). In the Matlab and Navrongo project, the social component consists of frequent interactions with men to encourage them to allow their wives to use contraception through frequent home visits and organizing durbars to interact with both men and women.

Another difference identified between the Matlab project and the CHPS is that the CHOs are not trained to insert and remove IUDs and surgical methods are not offered at the sub-district level. Clients are referred to the appropriate level for services but if the client is not well motivated in the presence of poor roads and transportation, they will not act upon the referral. This limits the choice of contraception available at the community level and contradicts the rights based approach the initiative is supposed to promote. The low number of functioning CHPS zones in the region may imply that services are not easily accessible and even for the functioning ones, the CHOs are overwhelmed with their duties and don't conduct regular outreaches. Though the number of CHPS zones has increased in 2012 and coverage of services improved at 23% it is still inadequate. The CYP decreased in 2012 and may be because services are not acceptable or the variety of methods offered is not adequate.

The need to improve the range of contraception available needs to happen concurrently with the updating of skills of existing staff, training and recruiting new staff, providing the right equipment and space for

delivery of services. Monitoring and supportive supervision visits which would have addressed the misconceptions of providers, who limit the provision of contraception based on age and parity, were few and needs to be increased. Training to improve professional ethics and provision of enough commodities and equipment will also ensure good quality of care and improve the use of contraception. Good quality of care was found to be associated with the use of contraception. Providers also need to be trained on adopting youth friendly attitudes and how to communicate with the youth to increase patronage of contraceptive services and adoption of methods. Inadequate funding limited the setting up of more adolescent friendly corners. This is a significant barrier to the use of contraception by the youth as the judgemental attitude of staff and community members was found to be related to the non-use of contraception. Setting up more adolescent corners in the region may help improve the use of contraception.

Cost emerged as an important correlate of the use of contraception in the region as there are high levels of poverty. Most youth who used contraception, use condoms purchased from private pharmacies because of the judgemental attitude of some providers and require friendly services. For older clients, the addition of contraception to the benefits package of the NHIS may help remove cost as a barrier. This is feasible as almost 85% of clients seen at out-patient facilities in the region including CHPS compounds were insured (GHS 2011).

The strategies and activities employed to generate demand for contraception, encourage spousal communication and male involvement were few and consisted of 3 communal meetings. The proliferation of radio stations in the region and the popularity of movies and songs produced in the local languages present opportunities which should be explored to reach a wider audience with information and education. The mixed campaign methods which included drama, frequent radio talk shows and targeting women at their work places proved effective. Also engaging religious leaders especially Islamic Imams and Traditional leaders to educate members of their congregation will be of benefit as the use of contraception among them was found to be low.

Also, government initiated interventions such as SADA should be accelerated to help improve infrastructure in the health system and packages to attract, retain and motivate health personnel to the region are needed as the human resource needs of the region to provide contraceptive services are inadequate. This will increase the number of competent staff available and improve availability and accessibility to contraceptive services.

The modified Anderson Behavioural model was useful in explaining the use of contraception in the region but sections such as the evaluated benefits of using contraception requires empirical research.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study sought to analyse the use of contraception in the region. Based on the findings and results, it is concluded that policies such as the National reproductive Health Policy and Standards (NRHPS) and the Adolescent Reproductive Health Policy, low educational levels, misconceptions about contraception and limited availability of youth friendly services was associated with the use of contraception. The suboptimal implementation of the CHPS initiative, inadequate and lack of competent staff were found to correlate with the use of contraception.

The rights of inhabitants of the region to plan their families and improve the health of women and children will be fulfilled with an increase in the use of contraception. These rights will be fulfilled faster if the factors mentioned above are addressed as a priority to help decrease the high TFR with its consequences on maternal and child health.

A key limitation of the study was that most research confined to the region was based on the Navrongo project which was conducted in the 1990s. Some aspects of the Ghana Demographic and Health survey data were not disaggregated by region and thus difficult to use. There is also a paucity of knowledge on the competencies of staff and facility readiness in the region to provide contraceptive services. Future research should address these gaps to improve the use of contraception in the region.

5.2 Recommendations

The following recommendations are made based on the findings of this study and are grouped according to policy, individual/ community and service delivery level.

5.2.1 Policy Level

- Government should show commitment to its policies by the timely release of adequate funds. This will prevent stock-outs; ensure the successful implementation of the CHPS initiative throughout the region, the effective promotion of contraception and to set up more youth friendly services.

- The cost of contraception should be included in the benefits package of the NHIS. This is relevant now as Ghana is in the process of reviewing the benefit package of the scheme and will help decrease out of pocket expenditure associated with using contraception.

- Motivational packages such as the rural allowance which is already a policy in Ghana should be implemented fully to encourage medical personnel to accept postings to rural areas.

5.2.2 Service Delivery Level

- The social component of the Navrongo project should be included in the scale up of the CHPS initiative as it will help address misconceptions about contraception and increase male involvement.

- Task shifting: To enable the provision of IUDs and Implants at the community level, it is recommended that CHO be trained in their insertion and removal.

- Regular supportive supervision, monitoring and evaluation visits should be carried out to ensure that standards especially professional ethics set out in policies, protocols and guidelines are adhered to.

- Skills of existing staff should be updated after a training needs assessment has been conducted; training, recruitment and retention of competent staff should be increased.

- More educational programs to address misconceptions and fears about side effects should be carried out. This can be in the form of street drama during market days, communal durbars and radio programs in more languages.

- Research should be conducted to understand why CYP is decreasing when coverage of services is increasing.

5.2.3 Individual/Community Level

- Influential members of the community such as religious and traditional leaders should be educated on contraception to serve as advocates for the use of contraception and encourage the education of children especially females.

- More activities aimed at involving men should be implemented such as communal meetings with men or visiting men at their work places to educate them about contraception.

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