FACTORS INFLUENCING THE QUALITY OF FAMILY PLANNING SERVICES IN GHANA

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FACTORS INFLUENCING THE QUALITY OF FAMILY PLANNING SERVICES IN GHANA

A thesis submitted in partial fulfillment of the requirement for the degree of Master of Public Health

By

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Declaration:

Where other people's work has been cited (from a printed source, internet, or any other source), this has been carefully acknowledged and referenced per departmental requirements.

The thesis "FACTORS INFLUENCING THE QUALITY OF FAMILY PLANNING SERVICES IN GHANA" is my work.

Signature…

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INTRODUCTION

As a Senior Technical Program Officer who has worked on some health programs, maternal and neonatal health interventions seem to run throughout the entire program's implementation. Most of the maternal health programs were run vertically/ parallel, which did not yield the needed results. Though there has been a reducing trend in Ghana's maternal mortality ratio, the current maternal mortality ratio is still high 308/100, 000 live births(1). One of the efforts targets to reach the Sustainable Development Goal (SDG) 3 is to promote family planning, and this is possible through increasing the uptake of modern contraceptives. Ghana adopted family planning as a way to reduce its maternal mortality ratio and fertility rate through the uptake of a wide range of contraceptives. The 2017 contraceptive prevalence rate in Ghana was estimated to be 25% amongst the married and 31% amongst the unmarried and sexually active(2).

For Ghana to achieve its ambitious FP goals of increasing the contraceptive prevalence rate to 30% amongst the married and 40% amongst the unmarried and sexually active by 2020 (3)(4), and reduce the unmet need of 26.3%(2017)(1), there is an urgent need to aggressively promote the use of family planning methods as the benefits of the usage includes the potential to avert 32% of all maternal deaths, help couples have the desired number of children and prevent nearly 10% of childhood deaths, improve the economic condition of families, households and society(3)(4). To complement the government of Ghana's effort to reduce maternal mortality, my organization supported the training of service providers to offer family planning services. A key strategy my organization adopted was the integration of FP into Maternal, Neonatal, and Child Health (MNCH) services, including post-partum family planning, post-abortion care family planning, and adolescent and youth-friendly reproductive and sexual health services.

Taking up this topic will help increase my knowledge and understanding of the subject, explore the enablers and barriers to the quality of family planning services and enable me to propose feasible and context-specific strategies to tackle the issues surrounding the quality of the service.

Improving family planning uptake will provide multiple benefits to Ghana by accelerating development and reducing pressure on the nation's resources. Family planning can improve food security through its impact on population growth, which determines the size of a country's population and, consequently, the demand for food and services. Improved access to family planning can play a significant role in reducing population growth, hunger, and malnutrition(5,6).

STRUCTURE OF REPORT

The study is structured to correspond with the objectives in the report. It is made up of five main chapters with sub-chapters. Chapter one discusses the background information about Ghana, namely: the geography, demographics, economic and educational status, fertility, and some health indicators. Chapter two discusses the problem statement, justification for the study, methodology, and conceptual framework used to organize and analyze the findings. The research findings/results of the study, as well as some proven interventions/ initiatives in similar settings

to improve the quality of family planning services in the country, are discussed in Chapter three. Chapter four discusses the study results. The final section discusses the conclusion and recommendations based on best practices identified.

ACKNOWLEDGEMENT

Primarily, I would thank God for being able to complete this program and Thesis with success. This journey has been insightful, fun, and experience and process I would do over and again if given the opportunity. I am grateful to God.

I am grateful to my family for the sacrifice and encouragement when I decided to pursue this journey.

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I express my gratitude to the teaching staff of KIT, and special thanks to my Thesis Supervisor and Course Advisor for their remarkable dedication, patience, and counsel offered me throughout my thesis and other course work. This piece would not be possible without your guidance.

My final appreciation is to my course-mates, who I have had the pleasure of learning, sharing ideas, and having fun with. I appreciate the immense experience and rich culture I experienced learning with you. You all are dear to me and have opened my mind to the endless possibilities and opportunities to make a difference in the field of public health. I am now a public health expert with an international perspective.

DEFINITION OF TERMS

Contraception

“The intentional prevention of conception and pregnancy through hormones, technologies, sexual practices, or surgical procedures”(7).

Family Planning

“The conscious effort of couples or individuals to plan the number of children they have and to regulate the spacing and timing of their births through contraception and the treatment of involuntary infertility”(7)

Contraceptives:

“Substances or devices that are capable of preventing pregnancy. Some examples are male and female condoms, injectable, oral pills, and intrauterine devices (IUD) (8).

Contraceptive Prevalence Ratio:

Proportion of women between 15-49 years who are using a contraceptive method (8).

Unmet need for family planning

The breach between women’s stated desire to avoid having children and their actual use of contraception(9).

Contraceptive Prevalence Rate:

The proportion of women between 15-49 years is using, or their partners are using contraception(8).

LIST OF ABBREVIATIONS

CHN Community Health Nurse

CHO Community Health Officer

CHPS Community-Based Health and Planning Service

CHW Community Health Workers

CSO Civil Society Organization

DHMT District Health Management Team

GDHS Ghana Demographic and Health Survey

GHS Ghana Health Service

ICPD International Conference on Population and Development

IEC Information, Education and Communication

IPS Population Services International

IUD Intrauterine Device

MOH Ministry of Health

NGOs Non-Governmental Organizations

NHIS National Health Insurance Scheme

NRHSP National Reproductive Health Strategic Plan

PLM Project Last Mile

SPARHCS Strategic Pathway to Reproductive Health Commodity Security

UHC Universal Health Coverage

UNFPA United Nations Population Fund

UNICEF United Nations Children Fund

USAID United States Agency for International Development

WHO World Health Organization

ABSTRACT

Background: Improved quality of family planning services is essential for improved health and well-being of a population. The study aims to assess and analyze the quality of family planning services provided to women of reproductive age to identify areas for improvement.

Objective: to identify enablers and barriers to the quality of care of family planning services in Ghana and provide evidence of best practices and recommendations to inform decision making.

Methods: A literature review of published studies on the quality of family planning services in Ghana using the Bruce quality of care framework. Only English literature was included in the study.

Results and Conclusion: Ghana has progressed with the quality of family planning services by creating a conducive environment for policies and a line item in the national budget for family planning. Family planning services have been partially integrated into the Primary Health Care system. Improvements are possible in all the different components of the framework; however, we identified significant gaps in the human resource and technical competency, and family planning commodity security and choice of methods. The research also found insufficient information on human resource and technical competency of providers and quantification and forecasting of family planning commodities

Recommendation: The study proposes more localized research in the area of the human resource and technical competency of providers and quantification and forecasting of family planning commodities in Ghana to generate evidence for decision-making.

Key Words: family planning services, policies, and guidelines, supply of commodities, quality assessment, choice of methods, allocation, supply chain, evidence, Ghana, Sub-Saharan Africa

Word Count: 12,336

CHAPTER 1: BACKGROUND INFORMATION

1.1 Geography

Bordered by; Togo to the east, Burkina Faso to the north and Cote d'Ivoire to the west, Ghana, a republic is an independent West African state situated on the Atlantic coast. The total landmass is 238,535 square kilometers (10)(11). To the south, the country has an Atlantic coastline extending 560 kilometers on the Gulf of Guinea in the Atlantic Ocean(11). On December 27, 2018, a referendum to create new regions by splitting four existing regions was held. The country is now divided into 16 administrative parts and 275 districts(10)(12). Figure 1 shows the new map of Ghana with the additional regions created(12).

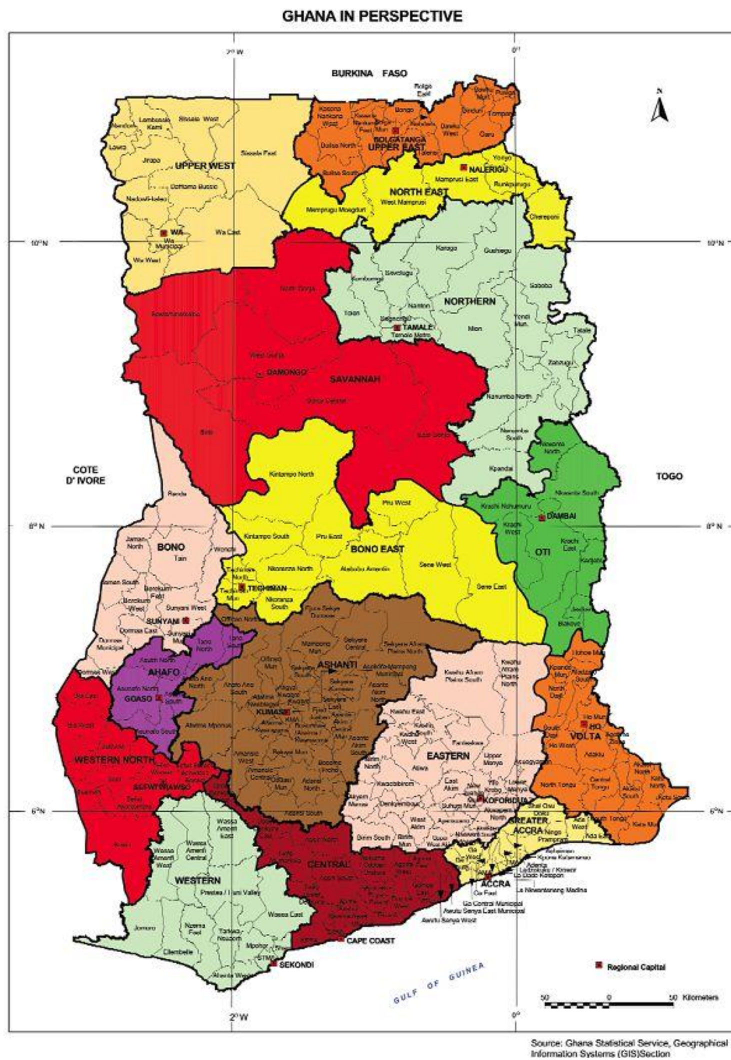

Figure 1:The new map of Ghana with the 4 additional regions created(13)

1.2 Demography

A 2019 report by the World Data Atlas estimates the total population to be about 30,418,000 in person. The annual growth rate in person is reported to be 2.2%; the fertility rate for 2018 is reported as 3.87 births per woman. Ghana consists of a very young population, with almost 40% being under 15 years of age(13). More people are concentrated in the southern half of the country(14).

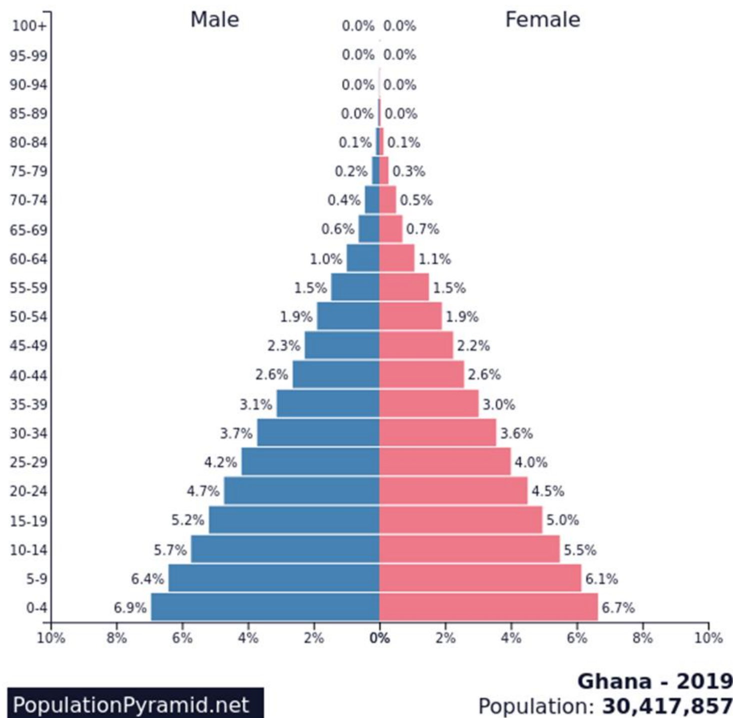

Figure 2: Population distribution of Ghana by age and sex (13)

1.3 Economy

Ghana's economy continues to grow in all sectors as a lower middle-income country(16). The World Bank reports a Gross Domestic Growth (GDP) in the first quarter of 2019 to be 6.7%, and it is expected to increase to 7.6% and non-oil growth of 6%. Gold, oil, and cocoa; the three primary export commodities accounted for a 2.8% GDP trading surplus with the service sector accounting for 7.2% of GDP(16). Ghana's service sector employs 47.8% of the economically active population, followed by agriculture, which employs 33.5% (accounts for 20% of the GDP) (14)and then the industrial services 18.67%(17). In 2018, the proportion of the country's population (15 years and above) that is employed was 65.1%(18). The country is producing natural gas from the Jubilee field, providing power to several of Ghana's thermal power plants. Expansion of the oil discovered has boosted the economic growth(14).

1.4 Education

Ghana has made progress in advancing access to education. In September 2017, the country initiated its free senior secondary education policy. This makes education free and compulsory from elementary, middle, and secondary schools. This initiative is to bridge the gap between rural and urban enrolment into schools, address the gender gap between school enrolment and progress towards United Nations Sustainable development goals 4.1 and 5(19)(20)(21)(22)(23). The free education has reduced the financial burden on parents and caregivers of school going kids and increased the chances of tertiary education(19). Youth (15-24) literacy rate has increased from 71% in 2000 to 86% in 2010(24) and currently at 90.6%(2015)(25). The proportion of men and women with no education has improved since 1993 from 35% in women and 22% in men to 19% in women and 9% in men in 2014 respectively(26).

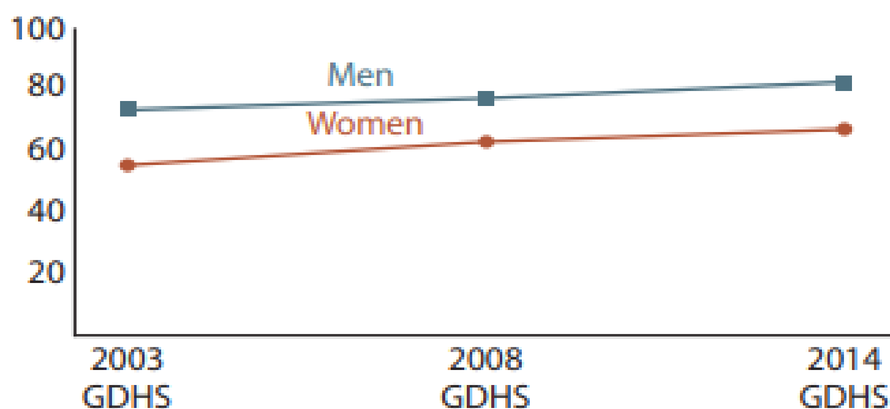

Figure 3: Trends in literacy rate in Ghana (2014)(27)

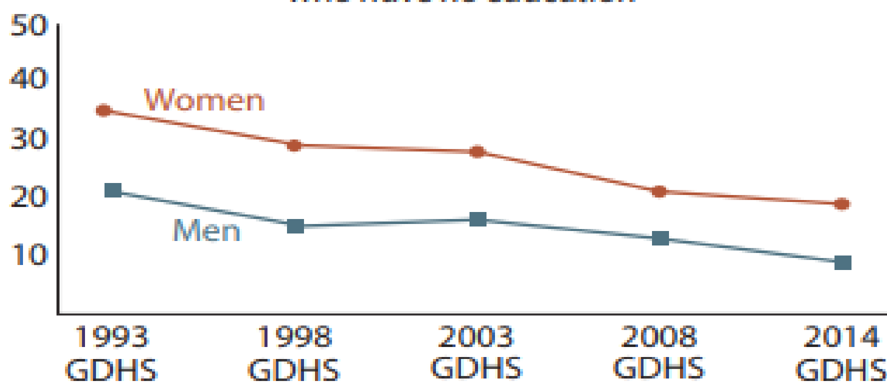

Figure 4: Trends In No Education Rate(2014)(27)

1.5 Marital Status, Religion, and Ethnicity

The Ghana Statistical Services (GSS) reports of 42.9% of the adult population being married in 2008, and 42.0% never been married (28). Religion and ethnicity are vital aspects of the lifestyle of the Ghanaian. Christianity (Pentecostal/charismatic, Protestants, Catholic, and other Christian) constitutes 71.2% of the population, followed by Islam, which is 17.6%, traditional, and others make up 11.2%. Except for the Northern region, where Islam is the predominant religion (60.0%), most of the people in the other nine regions are Christians(14).

The ethnic groups in Ghana include: the Akan tribe(the largest) 47.5%, Mole-Dagbon 16.6%, Ewe 13.9%, Ga-Dangme 7.4%, Gurma 5.7%, Guan 3.7%, Grusi 2.5%, Mande 1.1%, other 1.4%. (14).

1.6 Fertility

Ghana's total fertility rate (TFR) gradually declined from 6.4 births per woman in 1988 to 3.9 births per woman in 2017 and currently at 3.8(2019). This shows a decrease in 3.2 children(1)(23). Fertility varies per region and residence. Evidence suggests that these rates are higher in rural settings than in urban environments. TFR in rural settings is estimated at 4.7, while an estimate for urban centers is at 3.3(23). The country aims to reduce this rate(3.8) to 3.0 by 2020 through planned activities in an attempt to improve the availability and use of contraceptive services and also making contraceptives a priority (29)(3)(4). The current Contraceptive Prevalence Rate (CPR) is 30.8%, and an unmet need for contraceptives is 26.3%(1).

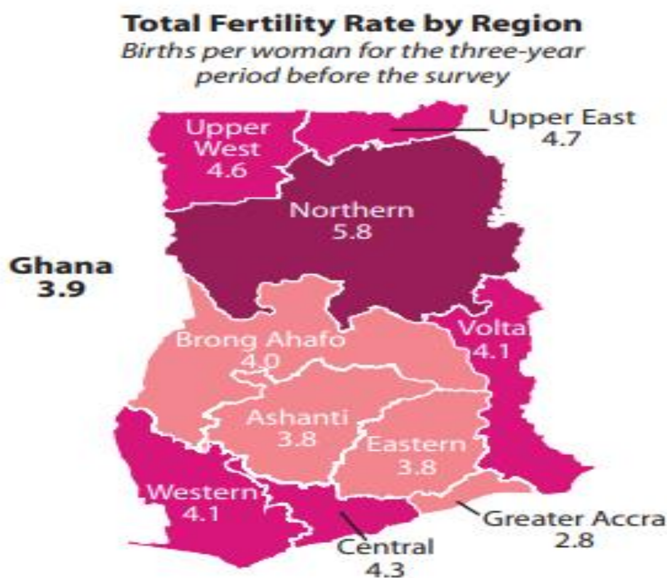

Figure 5: Trends in fertility rate by region(2)

Trends in Total Fertility Rate

Births per woman for the three-year period before the survey

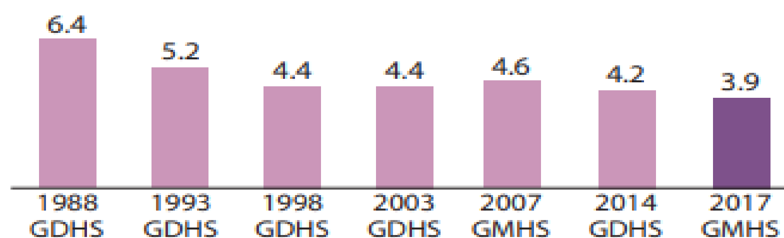

Figure 6: Trends in Total fertility rate(2)

1.7 Health System

1.7.1 Organizational Structure of Ghana's Health Service

The health system is managed by the Ghana Health Service(GHS), one of the health agencies under the Minister for Health (MOH) responsible for the implementation of national policies through its governing Council(30). The GHS supervises the activities of health institutions, which are primary, secondary, or tertiary. Health services are decentralized and managed semi-autonomously by Regional Health Management Team(RHMT) and District Health Management Team(DHMT)(30).

Public facilities account for 61% of the health facilities in the country with private and faith-based organizations (FBO) taking 31% and 7%, respectively(31). The country has six tertiary facilities located across the country, nine regional hospitals, 364 district hospitals, 2346 health centers and clinics, and 653 outreach sites. Except for the tertiary, regional, and outreach sites, the rest include over 700 private facilities, 400 maternity homes, and about 300 FBO. There are a total of about 4000 health facilities in the country(31)(32).

Six percent of government spending goes into the health sector(33). The government has increased expenditure for the availability of better healthcare resources and infrastructure. The healthcare cost and expenses related to the prevention and treatment of diseases are rising as compared to the gross domestic product (GDP). The government initiated the National Health Insurance Scheme (NHIS) to provide healthcare coverage for the Ghanaian population.

However, despite this increment in the budget, the scarcity of health care workers continues to plague the health system. The density of health workforce per 1000 population is approximately doctors (2017) 0.1/1000, nurses and midwives (2018) is 4.2/1000 and community health worker 0.2 /1000 which is less than the threshold for the skilled worker threshold value of 4.45 per 1000 population as stipulated in SDG goal 3(34)(35)(36).

1.7.2 Health Insurance System

Ghana has been progressively working towards achieving UHC. The country is currently at 1.43% on the UHC index(37). In 2005, the Ghana government introduced the NHIS to remove financial barriers, protect Ghanaians from catastrophic expenditure, and improve access to health care for everyone (38)(39). The services are free for pregnant women, persons under the age of 18 years, and people over 70 years of age. There are several services covered under health insurance(40)(41). The free maternal services helped reduce maternal mortality in the country(42).

According to a 2016 report and the 2017 NHA, the NHIS enrollment is at 40%, and OOP payments for health care in the country is 40%, respectively(43)(44). These figures indicate that most people, especially in the informal sector, are not enrolled in the scheme. If they are un-enrolled, then they are paying OOP for health care, which will be catastrophic and may lead to impoverishment(39)(45)(31). Most informal sector people live in rural areas, earn less money/ irregular income, have a higher burden of disease, and lack access to healthcare (although they need it the most)either financially or geographically(39)(40). These lacks of access make them delay in seeking care, seek care from traditional healers in the communities which may worsen the disease condition, borrow money to seek care which will compromise on other household expenditure and work extra hours(40). Some disease conditions are excluded from the NHIS. These trends constitute a challenge for the health financing situation in the country and the progress towards UHC.

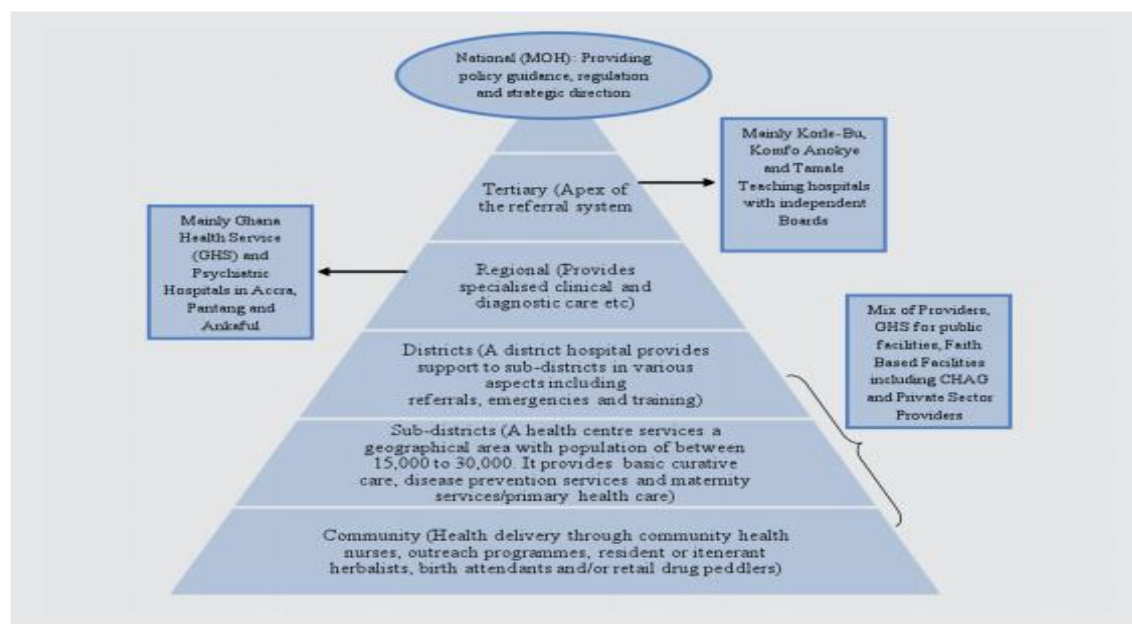

Figure 7:The organizational structure and hierarchy of health service delivery in Ghana(46)

1.7.3 Health sector challenges

Like other countries in Sub-Saharan Africa, infectious diseases and maternal and neonatal disorders are the most prevalent health problems seen across the country. Difficulties in access to

healthcare between urban and rural areas, gender gaps in access to healthcare, and health funding gaps are formidable challenges that face the health care system in the country. The increasing trend seen in the prevalence of non-communicable diseases such as cardiovascular disease, stroke, and diabetes, as well as the double and triple burden of diseases, adds additional burden to the overstretched system(1,46,47).

1.8 Family planning/Contraception in Ghana

One of the targets to reach the Sustainable Development Goals (SDGs) and achieve universal health coverage is to encourage family planning through promoting the uptake of modern contraceptives (29)(48).

Ghana's government support of family planning programs commenced in 1969 through many contraceptive project (49). The country planned initiatives to reduce the fertility rate from 3.9 (2017) to 3.0 by 2020 through the attempts to improve the availability and use of family planning services and also making family planning a priority. Family planning became a necessity in Ghana when maternal mortality was acknowledged as a nationwide public health crisis accounting for 310/100000 live births(50). It has also established to be a very cost-effective process to reduce the deaths of mothers and their kids which translate to improved health and prevent unintended pregnancy and has been acknowledged in policy as a critical component in improving national health and development and creating a supportive environment for a demographic dividend to be realized(5)(51).

Ghana has made meaningful but gradual progress in improving Family Planning (FP) and Reproductive Health (RH) in recent decades. Since 1993 DHS and after the International Conference on Population and Development (ICPD), which was held in Cairo in 1994, the government has made commitments to improve the utilization of modern contraceptives in the country. Modern contraceptive prevalence has more than doubled to its current 22%, and the total fertility rate declined by one child from 5.2 to 4.2 and currently at 3.9 children per married woman of reproductive age (9)(2).

The commitment to improve the contraceptive prevalence rate was reaffirmed in 2007 with the development of a National Reproductive Health Strategic Plan (NRHSP) in 2012 with Family Planning 2020(3) and 2015 with the Sustainable Development Goals (SDG) goal 3. The strategies had, among other purposes, the aim to increase contraceptive prevalence through the promotion of quality of reproductive health services, including contraceptives services(52)(53).

The range of family planning services includes a variety of contraceptive methods, postpartum FP, post-abortion care, and youth and adolescent-friendly services and information on becoming pregnant and treatment of infertility(54).

The long-acting reversible contraceptive methods include intrauterine device (IUD), Implanon and Jadelle which protects for a more extended period while the short-term methods such as Injectable (Norigynon and Depo Provera) for shorter periods, oral contraceptives (microgynon and microlut), and male and female condoms protect for a day or few weeks. Female sterilization and vasectomy are other forms of long-lasting, which are irreversible and permanent. The three

most common and most used contraceptives among married and unmarried women are injectable (27.7%), implants (28.2%), and pills (17.6%). The commonly known method is the male condom(9)(23).

The country relies on external donors to fund most of its contraceptive commodities. United States Agency for International Development (USAID), the United Nations Populations Fund (UNFPA), and other international agencies support the government with external funds in the procurement of modern contraceptives commodities. The family planning commodity supply has been decentralized(55).

The MOH over the years has developed strategic plans and constituted agencies to ensure long term security of reproductive health commodity supplies. However, these plans are without challenges; inefficiencies in the distribution of commodities, timing of contraceptives arrival, weak flow of information and data on contraceptives, problems with routine reporting of stock levels, and performance monitoring of the supply chains, and gaps in accountability and responsibility across agencies. Stock-outs of commodities occur due to delay in delivery from transportation challenges etc. Donor partners, Non-Governmental Organizations (NGOs), and other private establishments have sometimes been engaged in the supply and distribution of commodities(55).

MOH/GHS public health facilities remain the leading supplier of commodities providing 47 percent of current users, followed by the pharmacies providing 43 percent, then the private clinics and NGOs providing 29 percent. Public health facilities mainly provide injectable and implants, whereas the private facilities supply pills and condoms(55).

Family planning is integrated into the reproductive, maternal, newborn, child, and adolescent health services and the health services at all levels of care. It is an essential component of the primary healthcare system. The services are provided at all levels of the healthcare but vary according to the type and qualification of the available health personnel. All health facilities in Ghana offer family planning services at least five days per week. Facilities can offer a variety of modern family planning methods provided there are available, trained, and qualified staff and infrastructure required for maintaining infection control(56).

Figure 8 below gives an overview of family planning services delivered at the primary, secondary, and tertiary levels of healthcare in Ghana. It shares the different methods offered at the different levels of care and reiterates the fact that these methods can be provided if the trained cadre of staff is available. IUDs, implants methods and sterilization are usually offered in the hospitals and some private clinics that have the appropriately trained staff and infrastructure. Figure 9 also provides an overview of the service providers in family planning services in the country and the type of methods they are authorized to provide at each of the PHC systems. (51).

Permanent family planning methods are only provided by trained medical practitioners. Midwives are trained to deliver all long-acting and short-term methods; with the introduction of a task-shifting policy, some CHOs/CHNs are trained on implant insertion and removal in addition to the short methods. The rest are mainly trained to dispense short-term methods. Most

of the facilities, especially the large ones, have mixed teams of personnel providing FP services. Most service delivery points have CHNs/CHOs and midwives providing these services and service as FP training centers for CHNs/CHOs and midwives (56).

Community Health Volunteers are under the supervision of the CHN/CHOs to support them in their community outreach activities. They mainly distribute condoms and pills to clients in the communities. They also mobilize communities and provide FP Information and refer clients to CHOs for other FP Services (55).

TOWARD THE COMMUNITY LEVEL

Care Level	Type of Service Delivery Point	Methods Offered	% of Family Planning Services Delivered Nationwide	# of Service Delivery Points
Tertiary Care Secondary Care Primary Care	Hospitals/polyclinics	Permanent methods* IUDs Implants Injectables Oral contraceptive pills Condoms *if appropriate cadre is available	28.7%	166
Secondary Care Primary Care	Health centers/clinics		24.5%	1,774
Primary Care	CHPS compounds	IUDs* Implants Injectables Oral contraceptive pills Condoms *if appropriate cadre is available	5.6%	3,335
	Community health volunteers	Oral contraceptive pills* Condoms *if a refill for previous prescription	no data available	no data available

Figure 8: Family Planning Services delivery through the Public Sector (51)

Cadre	Number Specializing in Reproductive Health (nationwide)	Family Planning Methods They Are Authorized to Provide
Clinicians/physicians (including OB/GYNs and pediatricians)	652	Permanent methods, IUDs, implants, injectables, pills, condoms
Public health nurses	327	IUDs, implants, injectables, pills, condoms
Practicing midwives	2,223	IUDs, implants, injectables, pills, condoms
Community health nurses (CHNs)*	7,211	Implants, injectables, pills, condoms

**Community health volunteers (CHVs) work with CHNs to conduct community outreach. They can provide family planning counseling, condoms, and refills of previously prescribed oral contraceptive pills.*

Figure 9: Family planning workforce and methods they provide(51)

	Ashanti	Brong Ahafo	Central	Eastern	Greater Accra	Northern	Upper East	Upper West	Volta	Western	Total
OB/GYN	14	0	10	6	28	2	1	0	9	8	**78**
Clinicians/ Physicians	92	55	43	54	95	54	15	22	41	68	**540**
Paedriatric	5	3	3	4	16	0	1	0	2	2	**34**
Public Health Nurses	37	17	20	32	128	10	14	10	44	16	**327**
Practicing midwifes	446	147	131	320	440	50	124	60	263	242	**2,223**
Community health nurses (CHNs)	1,236	560	484	960	1,369	188	484	252	928	749	**7,211**
Total practicing RCH personnel	**1,828**	**782**	**692**	**1,375**	**2,076**	**304**	**639**	**345**	**1,286**	**1,086**	**10,413**

Figure 10: Family planning workforce distribution by region (55)

CHAPTER 2: PROBLEM STATEMENT & JUSTIFICATION, METHODOLOGY, AND CONCEPTUAL FRAMEWORK

2.1 Problem Statement and Justification

Providing and improving the quality of contraceptive services has become a priority need as it improves the health and well-being of a population. The maternal mortality ratio for Ghana for 2017 is reported at approximately 308 deaths per 100,000 live births putting the lives of many women. Induced abortion as a result of unintended pregnancy accounting for 12% of all maternal deaths(57), 2.3 million unplanned pregnancies with more than 800,000 unsafe abortions (4) account for the high maternal mortality rate (2). Improved quality of family planning services will decrease maternal deaths and fertility rates from 3.9 to 3.0, as intended by the government of Ghana(50).

Ghana Health Service (GHS) is the agency mandated to oversee all family planning programs. The leading suppliers of contraceptives in Ghana are the MOH/GHS public health facilities. The Family Health Division within GHS is responsible for the operationalization of FP programs, which are decentralized with activities and service delivery coordinated by the RHMT and DHMTs at the subnational levels. FP services are integrated into reproductive, maternal, newborn, child, and adolescent health services and included in the PHC structure of the country through the health facilities, the CHPS strategy to provide family planning, and other essential PHC services to rural and underserved communities. Health workers providing FP services include medical practitioners, midwives, community health nurses/community health officers (CHNs/CHOs), pharmacists, pharmacy technicians/attendants, and volunteers. Permanent contraceptive methods are only provided by trained medical practitioners(3)(55)(51)(56).

Midwives are trained to deliver all long-acting and short-term methods; with the introduction of a task-shifting policy, some CHOs/CHNs are also trained on implant insertion and removal in addition to the short methods. The large facilities have mixed teams of personnel providing FP services. The CHNs move deeper into hard to reach areas communities and work with community health volunteers (CHVs) to expand access to health care. CHNs recruit and manage CHVs, who support them with health promotion activities and engagement with the communities. These volunteers provide condoms and information on other available methods. Service delivery points have CHNs/CHOs and midwives providing services. Ninety-six percent of public facilities (from the CHPS compounds to the tertiary institutions) offer FP services five or more days a week and provide 47 percent of the FP commodities (mainly implants and injectable).

In contrast, the private sector delivers 46 percent(condoms and oral pills). The services and supplies have been included in the NHIS benefit package. The services are free in all public sector facilities, and some private sectors subscribed to the scheme(55)(51)(56).

Studies have reported the demand for contraceptives by married women of reproductive age satisfied by a modern method to be 47 percent and 51 percent for unmarried, respectively. However, only 27 percent and 45 percent use contraceptives in these groups. Reducing the unmet need for contraceptives is a critical goal for the health services in Ghana(55).

Another report indicates that knowledge and awareness of contraceptives in both men 99 percent and women 98 percent in the country is high. Family planning services have been integrated into the primary healthcare structure from the health center through the Community Health Planning Services (CHPS) to providing contraceptives and other essential services to rural and underserved communities). However, despite all these, it has not translated into the use of the services. Consistent use of contraceptive services and acceptability rate has dropped from 33.8 percent(2008) to 31.1 percent(2009), 25 percent(2017) of women of reproductive age were using modern contraceptives, and 26.3 percent(2017) have an unmet need of family planning. There is an inconsistent trend in contraceptive use over the years in Ghana. The low quality of contraceptive services may be one of the many contributing factors to the non-use of contraceptives among the reproductive age group(1)(47,54,55)(51).

Though the use of modern contraceptives is only 27 percent among all married women, most of these users suspend use within 12 months of introduction. The discontinuation rates for the three main methods are estimated to be 35.1 percent for condoms, 29.1 percent for injectable, and 29.6 percent for oral pills(3). Some reasons given for the discontinuation rates are fear of side effects (23.7 percent) and health concerns (10.7 percent), which are amongst the top reasons for women's non-use of contraception(55)(60).

In young women, ages 15 to 19, the total demand for contraceptives increased from 66 percent to 75 percent between 2003 and 2008 and remained high, at 69.3 percent in 2014. However, only 16.7 percent of young women in this age group are using modern contraceptives, leaving 50 percent in this age group with an unmet need. Young people are the most under-served population age group. The significant variation between CPR and unmet needs in this age group is linked to improved awareness and the creation of demand for contraceptives that are not being met(55)(61).

Data and studies from other low resource settings has linked poor quality of services to high rates of discontinuation, reduced utilization, non-compliance and hence high unintended fertility(61)

Ghana, through its commitments and support during the 1994 International Conference on Population (ICPD) and Family Planning 2020, seeks to increase access to quality, affordable, acceptable, and sustainable contraceptive services(55)(3). A recent systematic review and studies reported changing views and behavior towards contraceptive use among the reproductive age as well as integrating contraceptives services into the primary healthcare system(62)(51)(63). Other studies have identified health system factors that can deter contraceptive use to include: cost of purchasing contraceptives, density of nurses and midwives and health worker visits, type of healthcare facility and provision of adolescent reproductive limited supplies and equipment, poor

service organization, and provider imposed restrictions(64). While these studies imply barriers to quality services, they did not focus on measuring quality. Other studies have been limited to specific project areas or assessed only a few aspects of quality, so further research has been recommended (60). Demographic health surveys have only modest information on facility operations, infrastructures, and providers' behavior(9)(2). Furthermore, no study in Ghana has thoroughly explored the quality of family planning services that women of reproductive age receive. The goal of this study is to assess and analyze the quality of family planning services provided to women of reproductive age to identify areas for improvement.

2.2 OBJECTIVES

2.2.1 Study Objective

This study's goal is to identify enablers and barriers to the quality of care of family planning services in Ghana and provide decision-makers with evidence of best practices and recommendations to inform decision making.

2.2.2. Specific Objectives

- To describe the practices and existing gaps in the current quality of family planning services
- To identify and analyze interventions that have worked in other countries to improve the quality of FP services and assess if similar initiatives will be viable in Ghana.
- To document and make recommendations on ways to improve the quality of family planning services in Ghana to policymakers and relevant stakeholders.

2.3 METHODOLOGY

2.3.1 Study Design

The study will be a narrative literature review which will synthesize articles concisely summarizing findings. The study will critically analyze and formulate evidence, informed objectives, and conclusions. The different studies reviewed will provide an insight into factors contributing to the quality of contraceptive services from different viewpoints and generate evidence to inform the design and implementation of the most effective, efficient, and acceptable measures to improve the quality of contraceptive services in the country.

2.3.2 Search Strategy

Literatures of up to 15 years were used except for the Bruce Quality of Care Framework. This Framework (Figure 11) was chosen as it was developed purposefully to assess/improve the quality of family planning services and still relevant. The model categorizes quality of care into six elements building on the Donabedian model (the first model developed to assess the quality of care in health services). The six elements are essential social investment and vital aspects of the development of the health system in a country. Some keywords used in the search include policies and guidelines, family planning services and Ghana, choice of methods, technical

competency, quality assessment, family planning services, interventions, and family planning services. A detailed account of the keywords and combinations can be seen in table 1. For the inclusion and exclusion criteria used in selecting articles for this study, peer-reviewed literature and credible grey literature were used, only articles in the English language were used. A detailed inclusion and exclusion criteria can be obtained in table 2.

Study Objectives	Key Words, Combination, and MeSH
Current practices and gaps in the quality of family planning services	Policies and guidelines, supply of commodities, Contraceptive methods, availability, choice of method, family planning services, client satisfaction, policy support, health system, staff attitude, quality assessment, social behavior change communication(SBCC)
Interventions/ applicable strategies that have worked in similar settings	Quality improvement packages, Strategies, interventions, evidence, family planning, Ghana, Sub-Saharan Africa

Table 1: Summary of Keywords, Combinations, and MeSH per study objectives

Criteria	Inclusion	Exclusion
Type of literature	Peer-reviewed articles and credible grey literature	
Publication date	2005-2020 Except the Bruce model (1990), this is relevant for this study.	
language	English	Any other language
Intervention	Quality of care in contraceptive services	
Region of interest	Ghana, Sub-Saharan Africa, and any other region provided the literature that was comparable and relevant.	

Table 2: Summary of criteria used for literature review

2.3.3 Conceptual Framework

There are several components to achieving the quality of services. The determinants that are credited with improving the quality of family planning services are similar in lower-middle-income countries. Having structures in place by providing the necessary facility infrastructure, equipment, and supplies and equipping staff with the requisite training should form the basis. Developing policies and protocols to guide providers in the delivery of services in addition to having structures in place to ensure that the systems are sustained, equipment is kept in working condition, no stock out of consumable items, and pharmaceuticals are consistent. Providers are kept up to date on elements essential to their work and adhere to standards that are needed to ensure the quality of health services.

To identify factors contributing to the quality of family planning services in Ghana, a broad search of suitable conceptual frameworks was undertaken during the review process. Two relevant models related to the topic were identified. These were the Donabedian model (65) and Bruce (66).

The Donabedian model, developed in 1988, assesses the quality of care in health services. It suggests that information on quality of care can be drawn from 3 categories. It also describes each of the three categories and how they each assess the quality of care. It measures quality in the context in which care is delivered, the activities which make up the health care system, and the effect these have on a patient for informed decision and behavior change(65).

This model though useful, does not explicitly address relationship/linkages between the structure, process, and outcomes to quality of care. It overlooks the difficulty in determining whether the three domains influence and interact with each other, and the focus is on the health system. Linkages are imperative in assessing the barriers to quality of care and identifying opportunities for interventions to improve quality. The shortcomings of the Donabedian makes Judith Bruce's model developed in 1990 using the Donabedian model as the basis is ideal for the study.

Judith Bruce's model was developed purposely to assess the quality of family planning services; it categorizes quality of family planning services into three blocks: program preparedness, elements in the units of services received, and impact of the service on clients. The model links the program preparedness and six elements of quality to three types of outcomes: client knowledge, satisfaction, health, and contraceptive use behavior. These components can be enablers or barriers to the quality of family planning services(66). The purpose of this study is in line with the parts of the framework and will allow an exploration of the factors contributing to the quality of family planning services. All components of this framework were included in this review. The Bruce framework offers the opportunity to conceptualize interventions for each element and support the formulation of recommendations. Figure 11 shows the Bruce model Judith Bruce quality of care framework for family planning services.

2.3.3.1 Program Preparedness

The program preparedness describes activities and efforts put in a system to achieve the needed results. It includes political/ policy support, resource allocation (human, financial, and family planning commodities) and program management, which involves how the health system is is managed and operated.

2.3.3.2 Elements in the Unit of Care

The choice of methods describes the number and contraceptive method options available. It includes the availability of contraceptive methods, the kind of different options available, whether the methods will meet the needs and preferences of the various subgroups, and be satisfactory. It includes methods offered to serve subgroups as defined by age, gender,

contraceptive intention, lactation status, health profile, income groups, whether or not the methods meet the current or future needs of clients.

The element of information given to the client discusses education and materials on the different contraceptive services offered to the client when providers come into contact with clients. It enables clients to make informed choices about contraception. Some examples of the materials and education provided to clients include; information about the different methods available, providing details on how to use the method selected, impacts on sexual health, and its potential side effects; and finally, an often neglected element, explicit information about what clients can expect from service providers regarding sustained advice, support, supply, and referral to other methods and related services if needed.

Technical Competence describes the capability of service providers implementing aseptic procedures, the thoroughness needed to provide contraceptive methods, and their knowledge and observance of protocols.

According to the Bruce model, interpersonal relations describes the relationship between the provider and client, which are influenced by the organization's goal, mission, resources available and distributed, style of managing and supervision, skilled worker threshold, and workload.

Follow up/ continuity mechanism discusses services providers' ability to help clients make informed decisions, following through with it and continuing with the methods chosen on their own or through a well-informed mechanism put in place by a facility or program such as home visits, follow- up appointments and community information systems.

Finally, an appropriate constellation of services refers to making contraceptive services easily accessible for convenience and acceptable to clients, responding to their natural health concepts, and meeting pressing pre-existing health needs. Services can be appropriately delivered through a vertical infrastructure, or in the context of MCH initiatives, postpartum services, comprehensive reproductive health services, employee health programs.

The Bruce framework was chosen because it was developed purposefully to address the quality of care in family planning services. Reviews by other studies conducted to assess the use and implementation of the framework reported it being used extensively to inform empirical work evaluating the quality of family planning services and factors that determine the quality of care in contraceptive services

Frameworks to assess the quality of contraceptive service

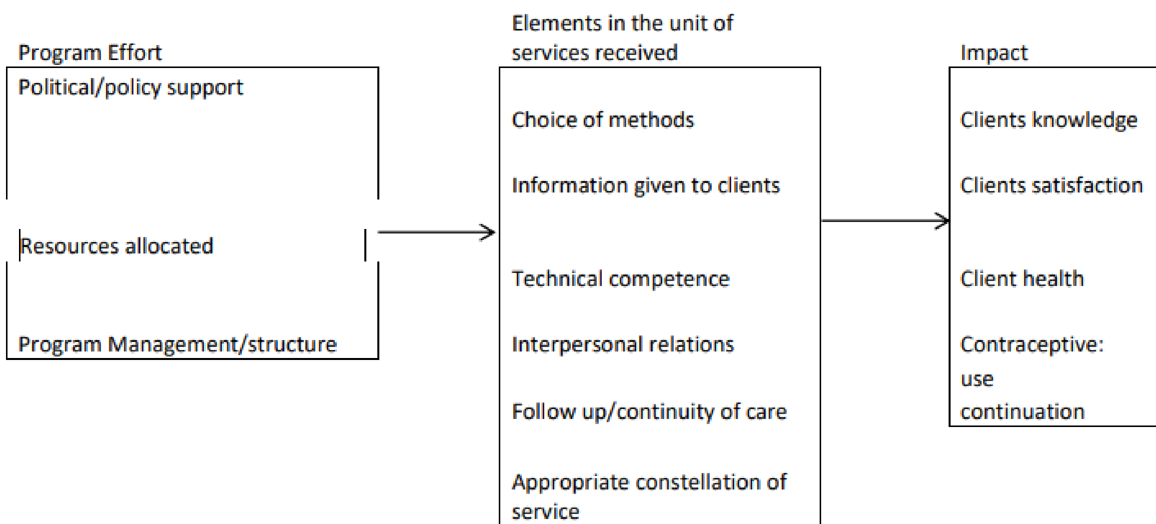

Figure 11: Judith Bruce Quality of Care Framework for Contraceptive Services (66)

CHAPTER 3: RESULTS

This chapter assesses the quality of family planning services in Ghana using Bruce's conceptual framework (Figure 11). All components in the framework will be used to describe the quality of family planning services in this study. Also, initiatives and practices from other countries focusing on quality improvement of FP services will be documented.

3.1 PROGRAM EFFORT

3.1.1 Policy/Political Support

The government has acknowledged family planning as a key component to help improve health and create an enabling condition for a demographic dividend to be achieved. All national and subnational family planning efforts in Ghana operate in a policy and legal environment in which the provision of family planning is lawful. The government has long been committed to having a strong family planning program as an essential component of Ghana's broader development agenda. Several critical policies, standards, protocols, and guidelines have been developed, all to improve family planning services and ensure quality of life for all Ghanaians(51).

The country constituted the National Population Council in 1994 to provide direction, coordination, monitoring and; other subsidiary policies, guidelines, and protocols such as a reproductive health (RH) policy and protocols, an adolescent RH policy, national FP protocols, and an RH commodity security strategy for effective implementation(67)(56). A number of the policies, strategies, and standards relevant to the study are summarized below:

- The Reproductive Health Strategic Plan 2007– 2011- "aimed to quality reproductive health services, reduce maternal and neonatal death (68).
- National Reproductive Health and Service Policy & Standards document defined the rules and responsibilities on reproductive services for providers and target groups. It spelled out the expected duties of service providers. The task shifting was also included in the policy(55).
- Ghana National Reproductive Health Commodity Security Strategy was to ensure that everyone, both young and old, had a choice for all family planning services and commodities(69).
- For adolescent reproductive health, the Ghana Adolescents Reproductive Health policy was developed to help improve adolescents' and young people's health status through the provision of comprehensive health services and improve their access and utilization to appropriate health information and quality health services(70).
- The 1969 National population policy was revised to affirm the commitment of the government to population issues and incorporate emerging issues, including HIV/AIDS, teenage pregnancy, pollution, degradation of the environment, and others(71).
- The Financial Sustainability Plan (FSP) developed was aimed at ensuring that funding for commodities are available in order not to create funding gaps and issues with the procurement and supply of family planning commodities(55).

- Decentralization policy: developed to delegate authority to the district levels(72)
- Abortion Law: enacted and legal if a medical practitioner on a pregnancy performs due to rape, incest, and risk to the mother(physically and mentally), and if the child will suffer from a disease(73).
- NHIS legislation reform passed to include family planning services into the NHIS benefit package, which is free and offered at all public and some private facilities(55).

The above-listed policy documents and strategies are an indication that the country is committed to creating an enabling environment to promote health, improve access, and availability to family planning services and ensure commodity security in Ghana.

Although policy elements are spelled out in documents and service standards, they are not always practiced. An example is the family planning benefit package for the NHIS, which mentions that the package is free of charge. However, the Performance Monitoring and Accountability (PMA 2020) report captured 66.4% of current users in Ghana paid for family planning services in the last 12 months with users from the poorest (80.9%) households more likely to pay than those from the richest (57.4%) households and unmarried (77.9%) women more likely to pay than married (68.7%). This defeats the efforts to expand access to the family planning services to all (74).

The reproductive health commodity security strategy was to address the challenge of funding for reproductive commodities and less dependency on donors for RH commodity procurement. This has not materialized; the country is still dependent on donors; 75% of RH commodities are procurement through donor funds. Funding for FP programming is inadequate equal to the need. RH funds are more often delayed. Currently, there is no budget line for RH commodities. There are challenges with the supply of commodities. Delays in the release of funds, dependency on donors for the procurement of commodities, and transportation challenges lead to late purchase and delivery of commodities, creating stock-outs in the facilities and denying clients access (55)(51).

The introduction of the task shifting was to address the health workforce (HWF) challenges, however; Community Health Nurses(CHN)/Community Health Officers (CHO) at the primary care levels (CHPS compounds) are not authorized to offer certain family planning services especially the long-acting reversible methods and therefore are not trained on them. This limits the variety of methods and options available for clients and a lack of incapacity of the provider(51). CHNs are now being trained to provide implants after the introduction of task-shifting(55).

3.1.2 Resource Allocation

3.1.2.1 General Resources

Funding is an essential component of the FP program. Until 2001, the MOH relied entirely on donor support for procurement and technical assistance to the program until it was able to draw

financial resources from health sector basket funds to contribute to some contraceptive procurement requirements(43)(55)(51)

In 2012, the total cost for implementing family planning services (programs, commodity, and operational) was estimated at USD 34 million. In 2013, it increased to USD 37 million and was projected to rise to USD 40 million(75). Total expenditure on family planning commodities in 2014 was reported at USD 9.2million. Ghana government contribution was USD 2.39 million and donor contribution USD 6.81 million. The total spending for FP commodities in 2011 was USD 55, 517.00 less than the USD 3 million allocation for procurement (55). To reach the goal of addressing the unmet need of FP by 2020, an additional fund of USD 78 million is needed. This leaves a total funding gap of USD 15 million (76).

Sometimes, government funds budgeted for RH commodities purchase through MOH are not released, and the funds eventually released are usually significantly less than initially budgeted. Government expenditures for RH commodity purchases have been very volatile over recent years. There is no budget for FP contraceptive procurement in the national budget. Lack of funds at the sub-regional level for FP programming also remains a considerable challenge(55)(51)

Even with the current contribution of government health sector funds to RH commodity procurement, the FP program remains highly dependent on donor support. The withdrawal of donor contributions has been identified as a considerable threat to achieving FP goals. The government's contribution to family planning services to compliment donors efforts is not forthcoming(43)(55)(51).

3.1.2.2 Human Resource

Ensuring high-quality services for clients requires a sufficient number of staff who are adequately equipped to provide the needed support defined by the levels of service provision. Trained health workers providing FP services include medical practitioners, midwives, community health nurses/community health officers (CHNs/CHOs), pharmacists, pharmacy technicians/attendants, and volunteers(55)(56).

According to WHO, Ghana has made progress in improving the midwife/ nurse to population from 4.5 essential workers to 10 000 population in 2006 to 21.2 essential workers to 10 000 population in 2016(77). However, a study on the forecast of healthcare facilities and health workforce requirements for the public sector in Ghana, reported that, although both public and private for-profit facilities train midwives and nurses in Ghana increasing the numbers, there are still shortages of essential health workers(35% midwives, 33% of professional nurses and 6-11% for nurse assistants). The private sector only employs one-tenth of the nurses and midwives produced, leaving the rest to seek employment in the public facilities(78). The government employs 68% of the health workforce (HWF) to deliver health services in the whole country. There are shortages of essential health professionals. These shortages affect the number of health providers trained to provide family planning services(79).

Figure 8 and 9 above gives an overview of the cadre of staff trained to offer family planning services and the method each of these providers can provide at each level. Qualified medical practitioners offer permanent family planning methods. Midwives are trained to deliver all long-acting and short-term methods, and CHOs/CHNs are now being trained on implant insertion and removal in addition to the short methods. Hospitals have mixed teams of personnel providing FP services. Almost all service delivery points have CHNs/CHOs and midwives providing these services and served as FP training centers for CHNs/CHOs and midwives(56).

3.1.2.3 Family Planning Commodities (Supply Chain)

A true informed choice can only be possible when all methods are available. Ghana has made progress in improving the variety/options for the different contraceptive methods. The country is committed to the ICPD 1994 pledge, which supports the rights of persons to have information to safe, effective, affordable, and acceptable methods of family planning of their choice, as well as other methods of their choice. Ghana is currently providing different modern contraceptive method-mix which includes long-acting reversible (e.g., implants and IUDs) and permanent methods (e.g., female sterilization and vasectomy) and short term methods (e.g., oral pills, condoms, injectable)(2)(3).

MOH/GHS public health facilities remain the leading supplier of commodities providing 47% of current users, followed by the private sector (pharmacies, clinics, and NGOs), offering 46%. Public health facilities mainly provide injectable and implants, whereas the private facilities supply pills and condoms. Contraceptive commodities supply to public health facilities is transported from the central medical store to the regional medical stores of GHS to districts, sub-district levels, and then to facilities(55)(51).

The PMA2020 reported that 99% of public facilities in Ghana, on average, offered three or more choice of methods, and 72% provided five or more. Facilities providing three or more only offered short term methods, whereas those offering five or more had long-acting reversible methods inclusive (80).

However, there are challenges with the actual number of family planning commodities used in the country due to quantification and forecasting issues resulting in stock-outs. Data from lower-level facilities to support the forecasting and quantification are not complete, delayed, and the district health information management system, which provides data for the country to undertake these activities do not disaggregate data for some commodities adding to the challenge. Stockout occurs, and clients are not able to access family planning services. Transportation, reporting, and monitoring of commodities are also a challenge(55).

3.1.3 Program Management/ Structure

The health service delivery system in Ghana is made up of public, private self-financing, and private non-self-financing (e.g., religious missions, NGOs) sectors(56). As mentioned earlier, the health system is managed by GHS. GHS supervises the activities of health institutions, which are primary, secondary, or tertiary. Health services are decentralized and managed semi-

autonomously by Regional Health Management Team(RHMT) and District Health Management Team(DHMT)(30).

GHS owns all family planning programs. The Family Health Division (FHD) under GHS has oversight responsibility for all the programs. RHMTs and DHMTs are responsible for the operationalization of family planning programs and coordinate inputs and service delivery at their various levels(51).

Although family planning resides with government, donors like USAID and UNFPA have more influence on how the programs are implemented due to their financial contribution to the procurement of commodities and service delivery. Donors procure 75% of family planning commodities in the country(55). Currently, the World Bank funds family planning services at the PHC level, and the money goes to only public providers who tend to use the funds to offer short-acting contraceptive methods because they are generally cheaper(51).

The private sectors that provide one-third of family planning services in the country are not involved in the quantification and forecasting of family planning commodities. They are excluded from the subsidies on family planning commodities and the GHS supervision structure. They contract pharmaceutical importers to procure and receive their commodities, whereas the public facilities receive their commodities from the regional warehouses. GHS does not provide reliable data on the number of private providers nationwide, and this limits the flow and information on the types of methods offered to private-sector clients. There is also a limit to the method mix that private providers can offer compared to the public facilities. About a quarter of private facilities offer intrauterine devices (IUDs) or implants, and less than a third provide injectable(51).

Information systems for tracking family planning services in Ghana are vertical. Inconsistencies exist between the paper-based reporting systems and aggregate data reported at the national level through the DHIMS2, the data management platform used by the government (51).

Many primary care facilities use paper-based registers due to non-access to conventional electricity, and they are mandated to submit their data to the national level, to be aggregated in DHIMS2. But national-level figures end up incomplete when public and private facilities fail to report their service delivery numbers(81).

Family planning services have been included as a benefit package on the NHIS however, due to the delay in the release of reimbursement to facilities for services offered, providers charge clients to recover their costs

The above information indicates that although the country has made progress in integrating family planning services into the PHC, the integration is partial. There are still challenges; the private sector has not been involved in the integration; there are challenges with health information and financing of family planning services and commodities. Due to the heavy

involvement of donors in family planning services, some facilities may not benefit from some services due to the direction of the donor family planning program.

3.2 ELEMENTS IN THE UNIT OF SERVICE RECEIVED

3.2.1 Choice of methods

As a commitment to FP 2020, Ghana currently offers the contraceptive method mix(3). From figure 13 below, implants are the most widely used method (28.2%), followed by injectable (27.7%)(3). The contraceptive methods are offered by static clinics and outreach services(55).

In theory, the method choice availability has expanded both in the public and privates sectors, with 96% of public facilities offering FP services five or more days a week(55). However, the availability of the different family planning services depends on the level of facility in the PHC system, stock out, and the cadre of staff available to provide the services. As mentioned earlier and depicted in Figures 8 and 9, permanent methods are not offered at the primary care level. Midwives, public health nurses and community health nurses are not trained to provide permanent methods. Only medical practitioners are trained to provide the services. This limits the choice of method for a client who would have wanted a long-acting permanent method. Such clients will need to be referred. A client or potential client who visits the facility for and does not receive the service will have her family planning needs unmet.

The PMA 2020 survey which tracked 5 FP methods (pills, male condoms, injectable, IUD and implants), reported that facilities with more than 100 beds said the highest level of stock out for these commodities (21.5% for pill, 17.9% for IUD, 14.9% for condoms, and 13.9% for injectable and implants) in the past 12 months for all five commodities compared to health centers and clinics which reported stock-out for only 4 of the commodities pills (18.0%), condoms (16.9%), and injectable (12.2%)tracked. Comparing the three commodities offered by the private sector to the public sector, stock-outs were reported more in public than the private(male condoms: private 20% to 27% in public; injectable: 10% in private to 15% in public; pills: 17% in public to less than 5% in private (74).

Twenty-eight percent of 3712 women of reproductive age in the survey had unmet contraceptive needs, and 37.2% of married/in-union women of reproductive age had unmet contraceptive needs. The unmet need was higher for women from poorer households (40% married and 30% all women) and lowest for women from wealthiest homes (20% all women and 34% married/in a union)(74), and only 27% of married women and 45% of unmarried use contraceptive services. This indicates that there is still an unmet need. Stock-out of commodities interrupts client usage of family planning services.

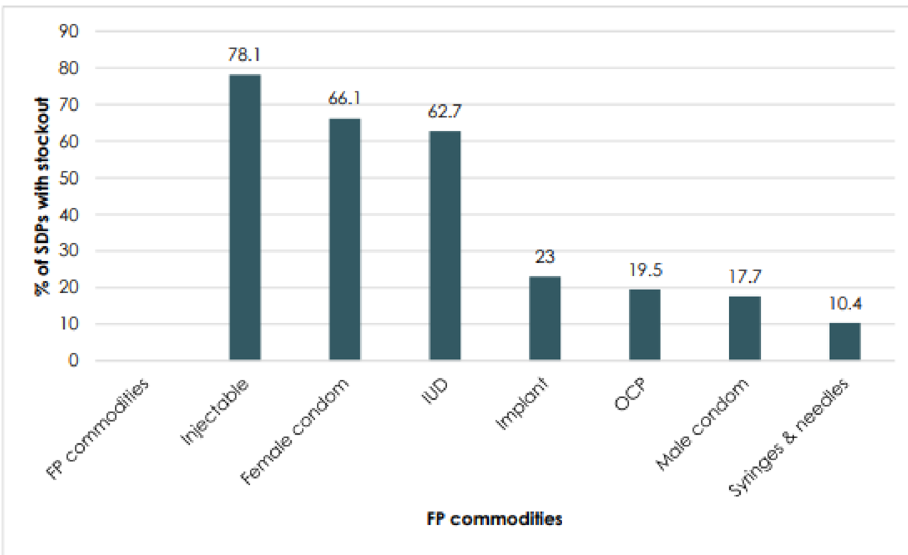

Figure 12: the proportion of service delivery points with FP commodity stock out in the last seven days(56)

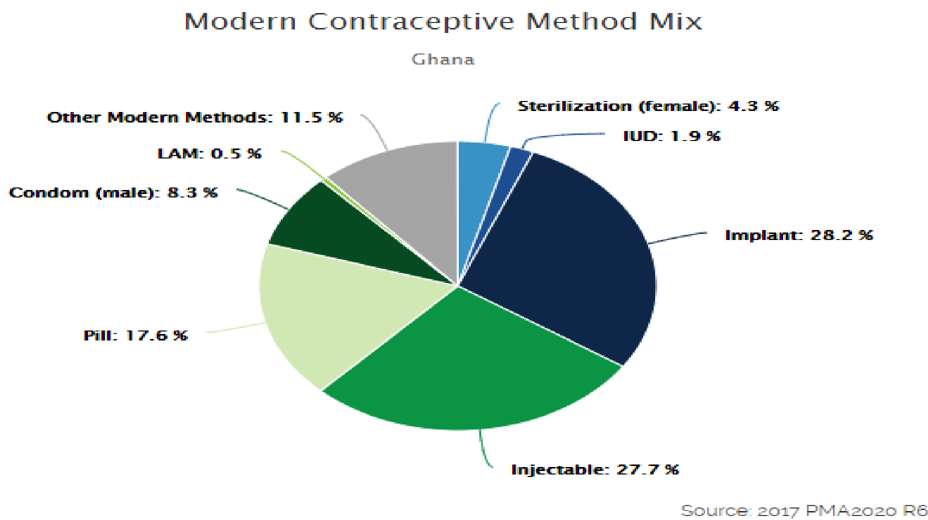

Figure 13: Modern contraceptive method mix in Ghana(3)

3.2.2 Information given clients

General information provision through media outlets is partly responsible for the health care system. Knowledge about family planning services is almost universal in Ghana (99% for men and women)(27). Clients receive information on family planning from media outlets (figure 17) and in the facilities from service providers. However, looking in more detail on the quality of the information supplied within the facility, this study will focus on the information given to the client during counseling by a service provider in the facility.

Information, Education, and Communication (IEC) resources such as posters, booklets, pamphlets, or visual aids, contribute to the effectiveness of counseling and client education. Mass media, community mobilization, and IEC materials are available that helps providers educate clients on family planning to help them make informed and free decisions. These social change interventions are aimed to address misconceptions, myths, and rumors about family planning. The IEC resource also addresses and answers questions of clients in a supportive and respectful manner. National campaigns are regularly organized to expose and inform clients on the different family planning messages(55)(56)(51).

Receiving information on the different options of contraceptives and family planning service helps clients to make informed decisions with regards to contraception and family planning. Quality of family planning services can be assessed, monitored, and evaluated by informed choice by clients. Health workers are obligated to inform all clients of contraceptive methods about potential side effects of the method chosen, what to do should they experience side effects and alternative methods of family planning that can be used(51). The 2014 GDHS, reported that a family planning worker informed 67% of modern contraceptive users about potential side effects of the method they use, 57% were informed about what to do if they experienced side effects, and 72% were informed of other available methods of contraception(27).

According to a health knowledge, attitudes, and practices of family planning service providers and clients study, although 88.9% of clients were counseled about FP, all clients were exposed to FP information within the health facilities before exiting the facilities(82).

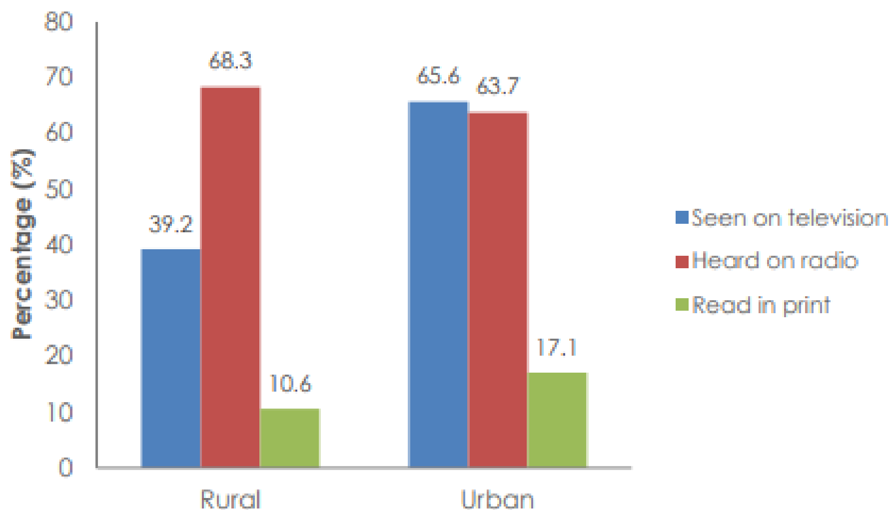

Figure14: Proportion of women of reproductive age exposed to FP messages in Ghana(55)

However, there are still challenges with information asymmetry in family planning. Most Clients are still unaware of the range of methods available to them and the benefits and potential side effects of each method. Users are less likely to receive information about side effects or problems of the method used from a private than a public medical facility (37% versus 77%), or

information about what to do if they experienced side effects (28% versus 67%), or about other methods that could be used (48% versus 81%). The use of visual aids is still deficient (27)(51).

There are still myths circulating among adolescents that family planning is an issue only for the married/ in-union and not so relevant for them. There is inadequate FP IEC material to be handed out to clients after they receive counseling when they visit the facilities(93.3% of clients counseled wanted FP hand-outs but did not receive(55)(51).

3.2.3 Technical competencies

The competency and capacity of service providers influence the quality of contraceptive services. Medical practitioners, midwives, CHNs/CHOs, pharmacists, pharmacy technicians/attendants, and volunteers have been equipped with the requisite knowledge to provide FP services; however, permanent contraceptive methods are only offered by trained medical practitioners. Figures 9 and 10 share by region and nationwide numbers of service providers specialized in reproductive health care(652 clinicians/physicians, 327 public health nurses, 2223 practicing midwives, and 7211 CHNs)(51). There are different compositions in the cadre and qualification of service providers offering family planning services in the country.

According to the Ghana trend analysis for family planning service survey, the average number of year's providers in the facilities offering family planning services has worked in the range of 0-2 years and over ten years. This range of service providers is in both the public and private facilities, and the service they provide depends on the level in the PHC. Due to the evolving nature of family planning and with new information about methods periodically being made available, in-service trainings are conducted for staff to refresh their knowledge and keep practices current. The trainings are conducted on specific methods appropriate for providers at the different levels in the PHC. For the survey, the number of providers (midwives, public health nurses, and general nurses) who had received in-service trainings increased from 38% in 1993 to 60% in 2002. The increment was 50% for physicians within the same period(49). However, these in-service trainings are not regular(56).

3.2.4 Interpersonal Relations

Good interpersonal relations with clients do not only improve the rapport between a client and a provider. It increases the chances of a client using and continuing with the family planning service. Providers must be respectful and non-judgmental to all clients, including young, old, and vulnerable groups. Studies have reported the influence of client-provider interactions on the uptake of family planning services(82).

A study examining factors contributing to low acceptability and coverage of FP services in Ghana reported that all current family planning clients (100%) responded that they were able to freely engage and discuss their concerns and receive the needed explanation and feedback from the provider. Some of the factors contributing to the low acceptability and coverage identified included misconceptions on the side effect, partner disapproval, socio-cultural issues regarding fertility(83). Another study reported that clients would visit the facility for service and continue

using family planning services if service providers are polite and friendly in their delivery of services and vice versa(62)(82). Of the 679 respondents in a study, 80.3 % said they would return to the facility, 77.5% said they would refer a relative or friend, and 69.8% said they would return and refer a relative/ friend due to their satisfaction with respectful treatment and services received(74). Interpersonal relations and communications between the provider and client are linked, and they influence each other.

3.2.5 Follow-up/continuity mechanism

Static, mobile outreaches offer family planning services, and door to door services by health care providers. In hospitals, clients visit the facilities for family planning services and follow-ups through scheduled visits. Clients are to report back to the facilities should they experience any discomfort. Primary care facilities (health centers and CHPS compounds) offer services and refer clients to larger facilities for services they do not provide (51).

Mobile outreach teams provide support to health facilities (especially smaller ones) through supplementary/additional family planning services. CHNs/CHOs at the primary care levels as part of their responsibilities and roles are to conduct at least ten daily home visits to educate communities on preventive health education, provide family planning counseling and other essential services. Through these visits, they follow up on the FP clients and discuss family planning with non-users of family planning services(55)(74).

The challenge with this is CHOs/CHNs are required to make ten home visits a day but only do an average of one visit per week. This is on the low as the introduction of the CHPS was to bring mobile services to the communities and have more contacts with households. Clients go to the CHPS compound to access services. The long queues and other indirect costs may interrupt contraceptive use by new and continuing clients. Service providers are to reside in the communities or proximity within the catchment area and commute for outreach activities, but this is not the case due to logistics limitations. There is also a lack of supportive supervision to these service providers in the communities(55).

3.2.6 Appropriate Constellation of Services

As mentioned earlier, family planning is already integrated into many aspects of its primary healthcare (PHC) system. The introduction and integration of family planning services into the CHPS systems and outreach activities, including home visits, were mainly to expand access to primary health care to rural and hard to reach areas /underserved communities. It happens along a continuum of care, improves the family planning coverage, and results in cost savings within the overall health system(55).

A study reported that because the family planning service packages are tailored to meet the day-to-day needs of clients, it improves the utilization of family planning as the relationship between the client and provider & facility is strengthened. It also creates convenience for clients who may require multiple services, especially for mothers with infants and newborns(49).

3.2.7 Impact

Client Knowledge

The 2017 Ghana Maternal Health Survey (GMHS) recorded that knowledge of contraceptive methods is almost universal in Ghana. Ninety-nine percent of men of reproductive age have heard of any contraceptive method, and the most common modern method known is the male condom (98 percent of women). In non-users, 80 percent of women age 15-49 know of a place where they can obtain a method of family planning. Seventy-six percent know of a public sector source, and 21 percent know of a private-sector source. Knowledge of any source is highest (90 percent) among women age 30-34 and lowest (59 percent) among women age 15-19(2).

In a study to measure client satisfaction and quality of contraceptive services, 88.9% of respondents recalled receiving information on FP(84). Ninety-nine percent of all pill users recalled how to take the pills, and 92 percent correctly stated how to check their IUD. Also, 99 percent of respondents knew how long their injectable method worked(49).

Client Satisfaction

Exit interviews were used to assess clients' satisfaction with service. Responses to questions about waiting time, how the staff treated client, cleanliness of a facility, ability to discuss problems about health with a provider, quality of examination, and privacy were used to measure the quality of services. A comparative analysis study conducted in 3 countries, including Ghana, reported that 76.3 percent and 81.2 percent were satisfied with the quality of examination and treatment received in the private hospitals and health centers/clinics, respectively, as compared with 71.1 percent and 59.2 percent(84).

Another study reported that 100 percent of family planning clients' respondents were satisfied with discussions on problems and concerns and explanations given by providers. About 92 percent, 95.2 percent, and 93.7 percent responded to be happy with the quality of examination, visual and auditory, respectively, during the visit to the facility. All clients responded to be satisfied with the treatment received from facility staff and the cleanliness of the facility(49)(83).

Client health

For this study, client health is interpreted as a side effect on the use of family planning services. Information gathered in a survey to assess the impact of side effects in the use of family planning methods, 5 of the 17 clients who had discontinued use reported changes in their menstrual flow as a result of using hormonal contraceptives(85).

Contraceptive use and continuation

Studies in the country have revealed that the outcome of client-provider interactions, availability of different family planning methods, and providing services relevant to clients' needs have an impact and contribute to contraceptive use and continuation. Clients will continue using family planning services if providers are welcoming and polite. In one cross-sectional study, all 68

study participants (100 percent) who were current FP clients were satisfied with their engagement/interactions with providers in the facilities. Ninety-four percent of these responded that they would recommend the facility to others(49)(84)(86). In another study, facilities that were offering immunization services in addition to family planning services recorded an increase in new FP clients for seven years(49).

3.3 PROVEN INITIATIVES TO IMPROVE QUALITY OF FAMILY PLANNING SERVICES

The study has identified significant gaps that can be addressed in the short term, which are commodity security and choice of methods and human resource and provider technical competency. Addressing the commodity security will address stock out of these commodities and the choice of methods. Improving human resource needs will address the shortages in the number of health providers and also address the technical competency and interpersonal relation of service providers. This section discusses initiatives identified to address the identified gaps in the short term.

3.3.1 Human resource and Technical Competency

Bringing family planning services closer to community members by investing in human resources was one effective strategy used in Ethiopia to improve the quality of the services. The MOH in Ethiopia implemented change packages by identifying women with some minimum level of education (10th grade). These identified women were given one year of training as Health Extension Workers (HEW) to implement health packages, including family planning. The trained HEW offered in addition to providing house to house family planning education, provided pills, condoms, short term methods (including injectable), and referred clients to district hospitals for long-acting methods. The HEWs were officially contracted by the MOH and paid salaries as civil servants. They were supervised by personnel in the health centers in communities where they worked. The HEWs were credited with doubling the country's CPR from 13.9 percent in 2005 to 27.3percent in 2011. The country recorded the most significant increment in the uptake of family planning services in rural areas, where most of the inhabitants live. A similar change package undertaken in Malawi underpins the success and practicability of this concept (87).

Since the HEWs were from the communities they served, they understood local issues concerning family planning and helped dispel barriers to acceptance. Through effective interpersonal relationships, HEWs addressed misconceptions of family planning services, counseled community members on the different family planning methods, and strengthened the relationship between the community members and health facilities. They scheduled FP services in the communities with health centers, followed up on clients on referrals, and sometimes traveled with clients to referred facilities. Implementing this initiative will address the human resource needs for family planning services, the follow up/ continuity of care through the

community visits by the HEW to clients in the communities, contraceptive use, and uptake will improve, and the underserved population in the rural communities will be reached (87).

3.3.2 Family Planning Commodity Security and choice of methods

Improving the supply chain management of family planning services addresses the choice of methods as clients will have a variety of contraceptive methods to choose from, ensure clients' use of contraceptives and contraceptives continuity, improves the accessibility of services, address stock outs and unmet needs of family planning.

The country already has a commodity security policy in place to address family planning commodity issues and stock-outs of commodities. The challenge is with the implementation of the policy. The policy needs to reviewed and updated.

To improve the supply chain management in the country, prevent medicines stock out, and make them readily available in their health facilities, Afghanistan established a procurement committee involving key stakeholders. They developed a quantification, procurement, and distribution guidelines to standardize the process of procurement planning, operations, and distributions to the health facilities. They also developed a stock out standard operating procedure. The country realized an increment in the availability of commodities in 13 facilities from 89% to over 93%(88).

Zimbabwe adopted the Strategic Pathway to Reproductive Health Commodity Security (SPARHCS) to improve commodity security and make available, the different variety of family planning methods in their country. The country adopted the tool and constituted the Delivery Team Topping Up (DTTU) team, which trained and assigned persons to track and monitor the commodity availability over a period. Within the period, the teams took stock, quantified, and forecasted for the next period to make certain commodities are available to prevent stock out(89). Similar change packages,' The Last Mile Project (PLM)' were undertaken in Liberia, Sierra Leone, and other African countries. Following the Ebola epidemic which devastated the two countries storage and distribution of essential medicines, the PLM leveraged and adapted the Coca-Cola system's expertise in supply chain logistics, distribution to design a last-mile delivery model that is effective in reducing out-of-stocks of essential commodities, organized resources and worked with stakeholders to develop and implement the ideal previous mile delivery model based on recommendations. The success of the PLM, the DTTU and the initiative in Afghanistan reinforces the transferability of this concept (90)(91).

CHAPTER 4: DISCUSSIONS

From the study results, the country has made progress in improving the quality of family planning services. In terms of program efforts, the environment is conducive to several policies, standards, and strategic plans developed over the years. The country has also progressed in terms of resource allocation for family planning services by including family planning in the national budget to support reproductive health and family planning services. However, the money is not always forthcoming. Though there are still shortages with the health workforce in the country, the country is making efforts towards improving the human resource needs. The commodity security efforts are progressing with the introduction of the contraceptive method mix and the financial commitment to increase procurement of commodities. Family planning information has been made available through IEC materials in the facilities, counseling of clients by providers, and mass media education to improve the knowledge of the people on family planning. Family planning services have also been partially integrated into the PHC.

Several factors were identified to influence the quality of family planning services in Ghana. Improvements are possible in all the different components in the framework discussed above. However, the major ones with more significant gaps were the human resource needs and technical competency and family planning commodity security and choice of methods. Interventions and quality improvement approaches aimed at improving the gaps mentioned above should be contextualized and implemented in the short term as the country progresses towards addressing these issues in the long term. Proven initiatives to improve the quality of family planning services mentioned above were conducted in settings similar to Ghana. Therefore, these change packages can be adapted and implemented in Ghana to address the challenges identified.

Family planning Commodity security and choice of methods:

Financing is an essential component in the implementation of all family planning activities. For the quality of family planning services to be effectively implemented, and activities are undertaken, the commodities and services need to be available at all times and each level of the PHC. Clients should have access to the services and variety of methods wherever they are.

There is a commodity security policy in Ghana which aims to ensure that everyone both young and old has the option to choose from a variety of family planning methods, there is available, quality family planning services and commodities required for other essential and emerging issues are available. The government has earmarked funds in the national budget to fund family planning commodities procurement. Recently as a commitment, the government has also increased its purchase of commodities from one quarter to one third, and the country is currently implementing a contraceptive method-mix. Nevertheless, there are still challenges with family planning commodity stock-outs in the facilities. Family planning commodity security and access

to the variety of family planning services are essential to clients, and potential clients are not denied the service resulting in unmet needs. Unavailability of the family planning services for use by clients may lead to unintended pregnancies, the spread of STIs, and other adverse health outcomes.

The results identified late submission of requests by lower-level facilities, thereby delaying the supply of commodities to these facilities. There is a schedule for the request and supply of commodities to facilities. Public facilities do not procure the commodities on the open market but request through from the regional stores. Delays in the request for commodities may lead to the delay in the supply of family planning commodities, which can eventually lead to stock out. The delays in the request for commodities suggest that facilities may not be taking stock of the quantities of commodities they use and therefore do not know when they are running out of stock. The supply may delay due to the process the request will need to go through before approval and supplies are delivered. Other times, the request may be made on time and items approved. Still, due to challenges with transportation as a result of lack of funds for fuel, the commodities will be in the regional medical store until funds are made available to fuel the vehicle.

Hospitals reporting of higher number of stock out of commodities may suggest that clients are visiting these facilities because there are options with family planning methods and services they receive in the hospitals compared to the lower-level facilities.

The study also identified that donors procure a higher proportion of the family planning commodities in the country. Facilities that are being supported by these donor commodities may run out of stock if the commodities are not available for supply. The number of contraceptive options may also be limited if donors do not provide all the different variety of methods. Again, facilities that are not supported by donors may be at a disadvantage if the government does support them.

Like the interventions in Afghanistan, Liberia and Sierra Leone during the Ebola epidemic and the delivery teams used in Zimbabwe, quality improvement teams responsible for ensuring supply chain commodity security through active tracking and restocking systems could be adapted to ensure availability of the services and different commodities at all times in all levels of the PHC.

Human resource need and technical competency

The country has made progress in improving the human resource needs for health. Both public and private facilities are training health providers to help improve the health workforce in the country. These improvements also indicate that the number of service providers offering family planning services has increased. The cadres staff offering family planning services in the country include medical practitioners/clinicians, midwives, public health nurses, general nurses, and CHNs/CHOs. The government is the biggest employer of these health providers and currently

employs 68%, which is an indication that there are trained providers who are not employed by the government.

Despite these efforts, the study identified shortages of midwives, professional nurses, and nurse assistants. These shortages affect the number of providers needed to offer family planning services in the country. The employed health workers are also not evenly distributed across the country.

Again as identified in the study, the kind of services and variety of family planning methods provided depend on the level of PHC and the cadre of staff assigned to the facility. Most of the CHNs/CHOs are not allowed to offer specific methods, and only clinicians are permitted to provide permanent methods. This suggests in the PHC; there is a limitation to what services are provided as one descends the level. Women in communities who prefer long-acting methods would be transferred. Implying they would need to travel to larger facilities, which may not be convenient for them. Midwives are permitted to offer specific methods. Lower level facilities without midwives also affects clients.

The mal-distribution of the limited number of providers disproportionately affects clients in remote areas, and this will change the country achieving universal health coverage. These suggest the need for Ghana to identify approaches that can be adopted to address in the short term.

Like the HEW concept in Ethiopia and the CHPS concept in Ghana, more Community Health Workers should be trained to provide some other family planning services with the supervision of the qualified CHNs as the government works to address the shortage of health workers long term.

4.1 Strengths of Study

The strength of the literature review was the quality assessment of articles gathered for inclusion and exclusion in the study. Publication bias was reduced by including articles that reported positive findings as well as those which reported negative findings to ensure a balance in the presentation of results and increase the representativeness of the study.

The study included different literature sources and study types, including interventional studies, as well as grey literature on policies. This made certain the inclusiveness of the results and increased the validity of the study.

4.2 Study Limitation

Unavailability of research information on the quality of family planning services in Ghana was a challenge. Some studies were identified to have been conducted in this area. The study therefore based its findings on studies in Ghana and outside of Ghana with similar settings. The interventions gathered were from a particular region used as evidence, so the results cannot be generalized. The restriction of the search to publications in English may introduce language bias in this review as findings from articles in other languages were omitted. This literature review

was broad and the time available to review all studies limited. As a result, relevant study findings may be missing in this review.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The finding of the study identified enablers and barriers to improve the quality of family planning services in Ghana. The service has been partially integrated into the PHC and is a benefit package on the NHIS. Resources (human, financial, and commodity security) have been allocated for the service. A contraceptive method mix is available to give clients a variety of options. But, significant gaps still exist. Some of the barriers identified had to do with the human resource needs and technical competency and family planning commodity security and choice of methods.

Improving the quality of family planning services requires inputs (political/policy support, resource allocation, and program management), process (choice of methods, information to clients, technical competency, interpersonal relations, follow up/continuity of care and appropriate constellation of services) to yield the needed outcome/impact (client satisfaction, health, knowledge, and contraceptive use, and continuation). This implies that policies, standards, and strategies for family planning services need to be reviewed, updated and implemented at all levels of the PHC; resources (financial, human resource and commodity security) should be made available, or the that health providers need to have the requisite competencies and time to ensure that they provide effective disclosure counseling. The evidence has revealed that addressing the family planning commodity security will improve the choice of methods as the more available the different commodities, the more the variety of options are available for clients. Addressing the human resource needs will improve the technical competency and interpersonal relations of providers. As mentioned above, technical competency and interpersonal relations are linked. Providing quality education and in-service trainings will improve the technical competency of providers as well as their interpersonal relations.

The recommended actions to improve the quality of family planning services should be aimed at improving the above mentioned using proven, most effective, efficient, and acceptable measures. Future research should address commodity security and choice of methods as well as human resource needs and technical competency. Such research should receive adequate funding and should include a variety of study designs to generate evidence.

5.2 Recommendations

Based on the literature review of the factors influencing the quality of family planning services in Ghana and the interventions, the following recommendations are being proposed.

- In this study, we identified family planning commodity security as one of the major gaps influencing the quality of family planning services. To address the gap, we propose an improved implementation in the family planning commodity security policy. This study

recommends that a master plan on implementation of the policy be developed to identify capacity building needs at all levels of care in the PHC, especially the lower level, study where the gaps are in the process to address the master plan. This will improve the commodity supply in facilities.

- The study identified human resource needs as another significant gap influencing the quality of family planning services. The study recommends that the government considers the initiative by Ethiopia in the short term. Community Health Workers are supporting CHNs/CHOs in their activities in the CHPS compounds and health centers, but these CHNs/CHOs employ them. Governments recognizing their roles and officially contracting and giving them the needed training will, in the short term, solve the human resource needs as well as improve access to family planning services to the underserved in the country.
- Resource allocation: The study recommends that the government secure sufficient funds for FP commodities, supplies, and other family planning services. It should honor its commitment to procuring family planning commodities, adequately budget to prevent stock-outs of all FP commodities and ensure that the approved budget is spent in line with stated priorities. Improve forecasting and coordination of the supply chain management and strengthen the supply of commodities from the national level to the CHPS level and adequately allocate resources to regions where they are needed to deal with the issues of stock-outs effectively.
- Further research by the MOH/GHS should be conducted to thoroughly explore the human resource and technical competency of providers and quantification and forecasting of family planning commodities in Ghana to generate evidence for decision-making.

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