

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA**



**ASSESSMENT OF HEALTH FACILITY READINESS FOR FAMILY PLANNING
SERVICES IN SAGNARIGU MUNICIPALITY IN NORTHERN GHANA**

BY

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LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD
OF MASTER OF PUBLIC HEALTH DEGREE**

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DECLARATION

I, Welbeck Kwesi Akplu, declares that apart from references made to other people's work, which I have duly acknowledged, this thesis is my own work and has not been submitted to this or any other university for another degree.



Date: 29th January 2023

Signature

Welbeck Kwesi Akplu (MPH Candidate)



Signature:

Date: -9th February 2023

Dr. Harriet Affran Bonful (Supervisor)



DEDICATION

I dedicated this work to my son, Raymond Komla Akplu



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I am highly grateful to my supervisor Dr. Harriet Affran Bonful for her support and guidance in shaping this work and making it great. I am also grateful to Dr. Leonard Baatiema and Dr. Genevieve Cecilia Aryeetey for their additional guidance. Also, I wish to express my profound gratitude to the Regional Director of Health services, Northern Region, and his team for permission and the funding support for my data collection. My appreciation also goes to Municipal Director of Health Services and the entire health staff of Saganarigu Municipality for support in providing data for this work. I finally thank Mr. Francis Kpadonou for his immense support in the development and deployment of the data collection tool.



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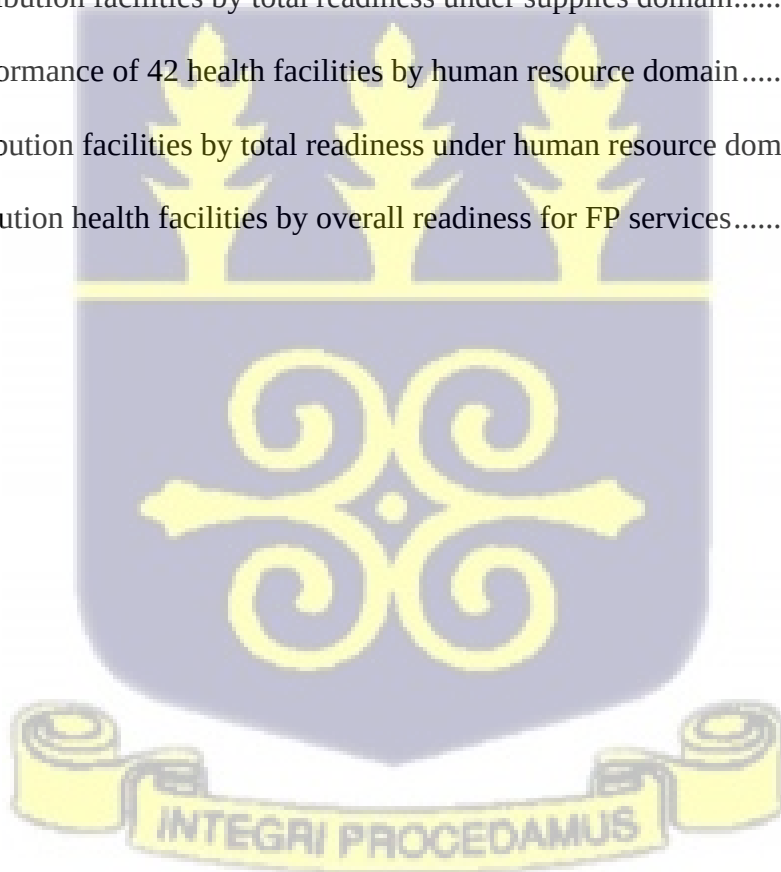
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LIST OF ABBREVIATIONS

ANC	Ante-Natal Clinic
BP	Blood Pressure
CHN	Community Health Nurse
CHPS	Community-Based Health Planning and Service
CSO	Civil Society Organization
CPR	Contraceptive Prevalence Rate
DHIMS	District Health Information Management System
FP	Family Planning
GHS	Ghana Health Service
GSS	Ghana Statistical Services
HMIS	Health Management Information System
IPC	Infection Prevention and Control
IUCD	Intrauterine Contraceptive Device
HR	Human Resource
LARC	Long Acting Reversible Contraception
LMIC	Low Middle Income Countries
MOH	Ministry of Health
NGO	Non-Governmental Organization
PHC	Primary Health Coverage
PHN	Public Health Nurse
PNC	Post-Natal Clinic
SARA	Service Availability and Readiness Assessment
UHC	Universal Health Coverage
WHO	World Health Organizations

ABSTRACT

Introduction

Ghana has annual family planning coverage target of 40%, but the annual coverage for Ghana, Northern Region and Sagnarigu Municipality for the year 2022 were 32.9%, 25.2% and 12.0% respectively. Addressing challenges of low FP uptake will result in sound socio-economic wellbeing of the women, families and the entire country. This study aimed at evaluating the readiness of health facilities for family planning (FP) services in the Sagnarigu Municipality of Northern Region.,

Methods:

A quantitative cross-sectional study was conducted. Total enumeration of all the 42 health facilities delivering FP services in Sagnarigu Municipality was done. The respondents included Public Health Nurses, Midwives and Community Health Nurses, who were in-charges of FP units. A WHO adapted questionnaire was developed and deployed unto KoboCollect App, which was used for face-to-face interview with the health workers. The main outcome variable was health facility readiness for family planning. Aside the basic biodata of the respondents and basic information about the health facilities assessed, data were collected on management, consulting room, supplies and human resource domains for each health facility based on WHO standard SARA tracer indicators to determine the total domain performance. The four domain totals were used to generate health facility readiness score. Verification was also done to ascertain the availability and functionality of some of the domain tracer indicators/items before completing those questions that require that.

Results:

Out of a total of 42 health facilities assessed for readiness for FP services in Sagnarigu Municipality, CHPS constituted the majority 64% (27/42). Most of the health facility FP unit

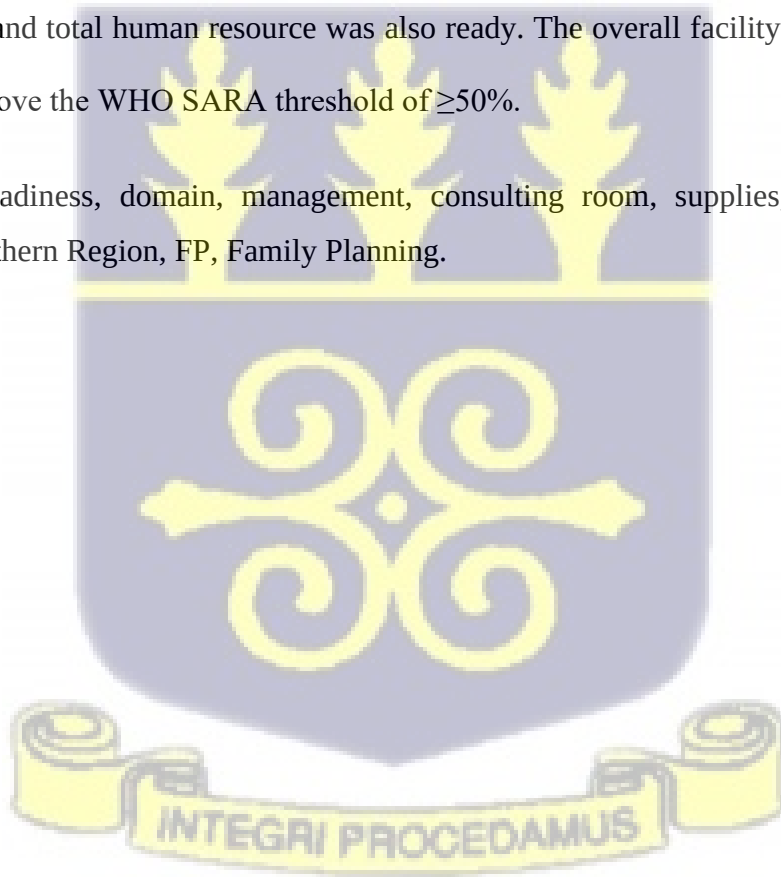
in-charges interviewed were midwives 54.8% (23/42). The mean age for the respondents was 34.9 years with a standard deviation of 8.6.

The total score for management level readiness was 64.3% for all the 42 health facilities assessed. The total score for consulting room domain was 48.7%. The scores for total Supplies domain was 51.9% and that of total human resource domains 88.1%. The overall facility readiness for FP services was 63.2% for the municipality. By the SARA criteria for overall readiness, 81.0% (34/42) health facilities assessed were ready for FP services.

Conclusion:

Generally, total management level was ready, total consulting room was not ready, total supplies ready and total human resource was also ready. The overall facility readiness for FP services was above the WHO SARA threshold of $\geq 50\%$.

Keywords: Readiness, domain, management, consulting room, supplies, SARA, WHO, Sagnarigu, Northern Region, FP, Family Planning.



CHAPTER ONE

1.1 Background

Ghana adopted its first National population policy in 1969, with a revised policy in 1994. The main objective of this policy was to integrate population issues into all aspects of the development planning process (Ghana National Population Council, 1994). Ghana Government has long acknowledged that its people are the country's most significant resource. The population's quality of life is therefore a primary focus of the developmental objectives. However, a number of issues, including high rates of maternal and infant morbidity and death as well as a high fertility rate, continue to pose a threat to the welfare of the populace, making it more challenging to achieve governmental development objectives. The most recent population-based survey found that some important reproductive health indicators had improved. The overall improvement in these indicators has led to slight reduction in maternal and new born mortality. One of the main strategies under this acceleration plan is an increased access to quality family planning services (GHS, 2014).

Programmes were designed to implement the policies with varying strategies. Family planning implementation strategies come with flexibilities to allow for contextual characteristics to play. Family planning methods include the pill, injectable, male and female condoms, emergency contraception, implants, intrauterine contraceptive device (IUCD), female and male sterilization, standard day method (SDM), and lactational amenorrhea method. Family planning is also known as information, techniques, and procedures that enable people to decide whether or not to have children. Family planning service providers across all public health facilities are Trained Medical Doctors, Midwives and Community Health Nurses. Some of these staff are also assigned to private and quasi-government hospitals to provide family planning services (Schrumpf et al., 2020). Family planning is regarded as being necessary for

women who desire to space out or limit their pregnancies(Staveteig, 2017). Contraception helps people exercise their human right to choose how many children they want and when they want them (WHO, 2020).

The best indicator for monitoring family planning is the proportion of women using contraception among those who need it. This indicator is frequently called family planning coverage(Barros et al., 2015). A fraction of women in fertility age who use any family planning method (Chaurasia, 2020). A combination of many factors come to play to determine the outcome indicator; both demand and supply sides. No single factor is observed to have contributed to this indicator. Research is required to understand the key factors associated with quality of care in family planning services in African countries(Tessema et al., 2016).

Supply side of family planning is mostly facility based and requires readiness of the health facility to generate demand for the FP services. Facility readiness is defined as the willingness or state of the health facility to provide FP services(Bintabara et al., 2017). A health facility's capacity to supply a particular service and deliver it to a user is examined by service-specific readiness. This is measured using specific tracer items, such as qualified personnel, policies, tools, diagnostic capability, medications, and supplies (M. Ali et al., 2018). The providers operate from the established health facilities to serve the catchment area of the health facility with FP services. The focus of this study is to assess the readiness of health facilities in the Sagnarigu Municipality of Northern Region to provide quality family planning services.

1.2 Problem Statement:

In spite of the huge investments, varying strategies, uptake of family planning (FP) services remains low. In a study carried out in 37 countries in Sub-Saharan Africa, the use of family planning methods recorded a low pooled prevalence of 22.0%. This ranged from 3.5% in the

Central African Republic to 49.7% in Namibia, while that of Ghana was 18.2% (Boadu, 2022). However, Ghana's annual family planning target was 40%, but the annual coverage for Ghana was 32.9%, Northern Region was 25.2% and Sagnarigu Municipality 12.0% for the year 2022 (DHIMS 2, 2022). Meanwhile, Northern region is the 2nd highest in total fertility of 4.4 in Ghana; 3.9 in urban and 4.9 in rural areas. Ghana's national Total fertility in the year 2021 Census was 3.1 (Ghana Statistical Service, 2022).

Despite the benefits of family planning to women's health, which far more outweighs the risks, the challenges and barriers to their use persist. Unmet needs for family planning is still high. Potential challenges include negative user attitudes towards contraception, provider beliefs, and those arising from the culture and health systems. Users who only infrequently engage in sexual activity may not believe they need contraceptives; additionally, many people are familiar with only a limited number of methods, or may subscribe to traditional and/or religious belief systems that disallow contraceptive use (Mbizvo & Phillips, 2014).

There persist logistical issues such as stock outs, difficulty traveling to health facilities, and social barriers, such as hostility from partners or families, are common reasons why women do not utilize dependable, family planning methods. Also, many women do not realize they are capable of becoming pregnant, do not know what contraceptive techniques are available, or have false information about modern methods due to a lack of education. Access to family planning information and services is typically limited for poorer women and those living in remote locations. Adolescents, unmarried people, the urban poor, rural communities, sex workers, and HIV-positive persons all confront significant challenges when it comes to family planning. This can lead to an increase in the number of unplanned pregnancies, as well as an increased risk of HIV (UNFPA, 2022).

Furthermore, low usage of family planning methods has resulted in several maternal fatalities, unsafe abortions, and unwanted pregnancies in Sub-Saharan Africa, including Ghana. About 80 million (38 %) of the 210 million pregnancies that occur each year in the world are unplanned, and 46 million (22 %) result in abortions. When used correctly, family planning methods should be able to solve this public health issue (Baidoo et al., 2022). Ghana and other countries in the Sub-Saharan African have reported low rates of family planning use, probably due to difficulties in influencing potential users of the practice's overall benefits, as well as removing pre-existing misconceptions about family planning methods. It is a human right of women to have access to safe, voluntary family planning. Family planning is essential for gender equality and women's empowerment, as well as poverty reduction. Despite this, an estimated 218 million women in poor countries do not use safe and effective family planning methods, owing to a variety of factors ranging from a lack of information or services to a lack of support from their partners or communities. Their potential to establish a better future for themselves, their families, and their communities is jeopardized as a result. According to UN Population Division projections, 218 million women in developing countries desired to avoid or delay conception in 2020 but were not utilizing a modern, reliable form of contraception (UNFPA, 2021).

It is therefore important to consider system thinking approach to assess the health facility factors of affecting supply of family planning services in low performing region.



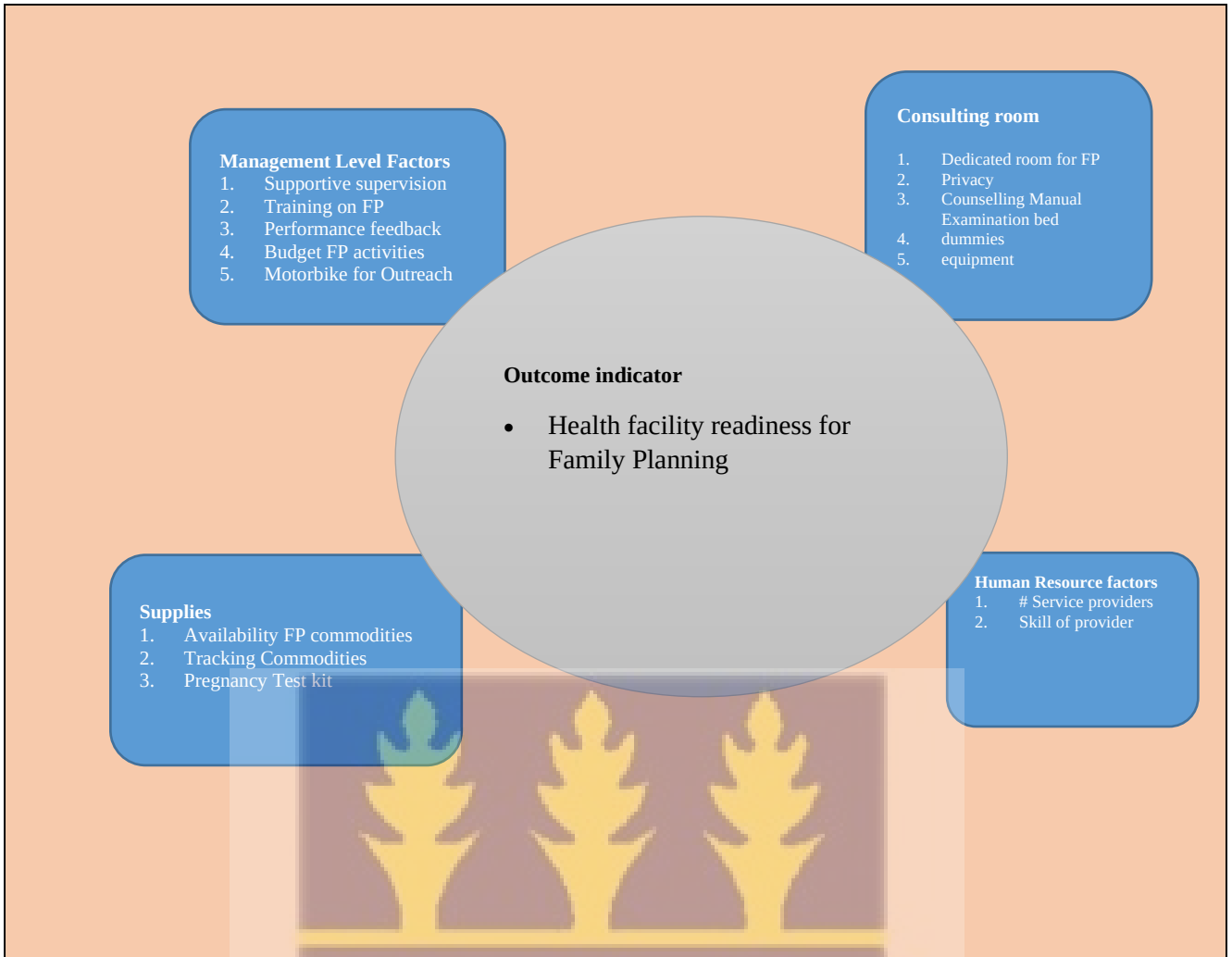


Figure 1 Conceptual framework for the study

1.6 Summary description of the Conceptual Framework for this Study

The diagram above is a conceptual framework for this study, detailing tracer indicators/items from the facility side by category, that contributes to the overall health facility readiness for FP services in Saganarigu Municipality of the Northern Region in Ghana. The overall health facility readiness for FP services is described as a function of supplies factors, consulting room factors, Human Resource factors, and management level factors.

The supply factors such as the availability of commodities, equipment, dummies and inventory control systems for commodities were considered. The dummies are necessary for demonstration when educating the client on certain methods. The equipment such as BP apparatus is for assessment of risk, and availability of various methods to make the facility a

one-stop-shop for all FP Clients. These also give the clients the wide range of opportunities to make informed choice of methods to suit their needs. It also reduces or eliminate the frustration clients go through with multiple visits to get their preferred choices.

A well-resourced consulting room for FP facilitates privacy and counselling. It ensures both audible and visible privacy. It has consulting bed/couch, that allows for full assessment to identify potentials risks to inform choices of methods. These environments enhance relaxed and open discussions regarding the needs of the client. This is where clients can ask for clarifications and be clear in their mind choice they are making. It also serves as a good work environment, which motivates the providers to render quality services to their FP clients. FP Clients will have confidence in the facility environment and boldness to visit anytime they want. The health facility can become center of attraction for FP services.

A good human resource tracer factors such as presence of service providers and presence of providers skillful in providing all the basic FP methods,

Proper and adequate management level tracer factors include support from national, regional and district level to providers in terms of technical supervision, skills training, performance feedback on family planning services, making budget and motorbike available for family planning services during outreach and follow-up activities, which improves on access of clients to FP services. Management level support “gingers” and incentivizes the providers to render quality FP services to clients at both the facility and outside the facility, yielding good family planning outcomes.

1.7 Research Questions

1. What is the management support for health facility FP services in Sagnarigu Municipality?
2. What is the state of consulting rooms for FP services in Sagnarigu Municipality?

3. What is the state of FP supplies in the Sagnarigu Municipality?
4. What is the state of human resource for FP services in Sagnarigu Municipality?
5. What is the level of readiness of health facilities FP services in the Sagnarigu Municipality?

1.7.1 General Objectives

To evaluate health facility readiness for family planning services in Sagnarigu Municipality.

1.8 Specific Objectives

1. To describe management factors of health facility FP services in Sagnarigu Municipality.
2. To describe the consulting room factors of health facility FP services in Sagnarigu Municipality.
3. To assess the availability of FP supplies at health facilities in Sagnarigu Municipality.
4. To assess human resource factors of health facility FP services in Municipality.
5. To determine health facility readiness for FP services in the Municipality.

1.9 Significance of the study

Many studies have been carried out in the Sagnarigu Municipality to establish factors affecting FP uptake, particularly, the client side. This study focused on the provider side, based on the adaptation of the WHO standards. This study will add to the stock of existing literature on the side of health facility readiness for FP and inform policy-makers on the measures to improve on the level of readiness for FP.

The findings of this study will inform the Family Health Division, the Northern Regional Health Directorate, Sagnarigu Municipal Health Directorate, partners and Non-Governmental Organizations (NGOs) with focus in reproductive health to put in interventions that will

improve the management support, consulting rooms, supplies and human domains, which will result in health facility readiness for FP in the municipality.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Maternal health in Africa largely requires improvement by increased use of family planning services. Increased demand for contraceptives depends on the quality of care provided in health facilities. It is important to compile the information on the factors affecting the standard of care in African family planning services. This chapter contains the review of theoretical frameworks for health system improvements, followed by past works done in the area of supply factors in family planning, consulting room factors in family planning, management level factors in family planning, as well as human resource factors in family planning. The following are the theoretical frameworks reviewed for this study.

2.1 Summary description of Health Systems Framework for Primary Health Care

The framework in figure II below was birthed out from WHO health system framework to suit the primary Health Care context of Africa. This is to enhance Universal Health Coverage for African countries if implemented well. The International Conference on Primary Health Care and Health Systems in Africa, which took place in Ouagadougou, Burkina Faso, from April 28 to 30, 2008, resulted in the adoption of the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa with the theme of Achieving Better Health for Africa in the New Millennium. The Conference's goal was to assess prior experiences with Primary Health Care (PHC) and reevaluate strategic directions for scaling up critical health interventions to meet health-related MDGs using the PHC strategy for bolstering health systems through renewed commitment from all African countries.

The PHC framework has 9 blocks while that of the WHO has 6 blocks. The existing blocks of WHO unchanged found in the PHC framework include Service Delivery, HR for Health, Health Financing, health Commodities and Technology. Juxtaposing the Primary Health Care

system framework to that of WHO, indicates that as an extension of HMIS in the context of Africa, research plays major a role in unearthing critical challenges facing the health systems and recommends appropriate ways of addressing those challenges in order to improve the system, and not Health Information Management system alone. As extensions of Leadership and governance in WHO health system framework are Community ownership and Participation, as well as Partnerships for Health Development for PHC in Africa(WHO African Region, 2015).

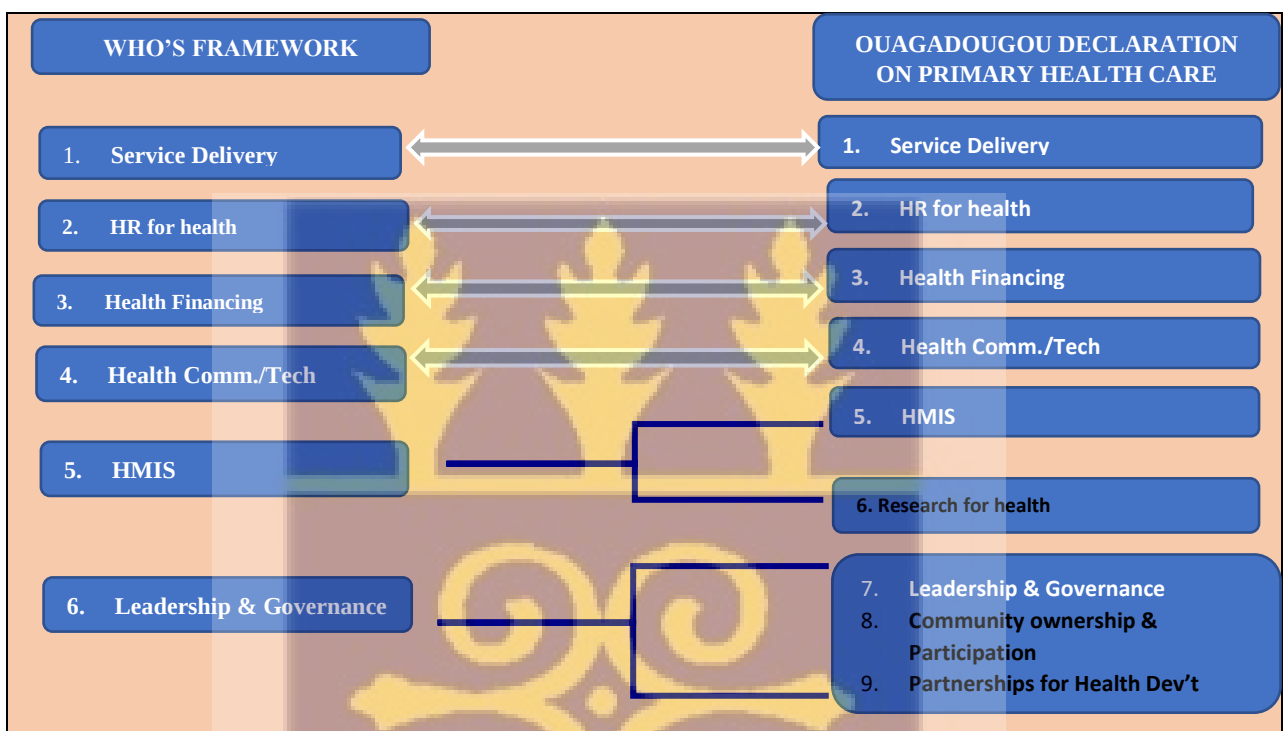


Figure II WHO framework linkage to Ouagadougou Declaration on Primary Health Care Framework

2.2 Summary description of Organizational structure of Ghana health services delivery

The Ministry of Health (MOH), which sets broad policy direction, is currently in charge of overseeing Ghana's healthcare system. But the Ghana Health Service oversees implementation of the policies. The health services in Ghana is structured in terms of functions into five levels (Figure III) below. The teaching hospitals are at the apex the tertiary hospitals. Following this are the regional hospitals, which offer specialized care and serve as models for the district hospitals. The district-level healthcare facilities offer district-level services and act as referral

hubs for the sub-district hospitals. Community clinics are the most affordable healthcare facilities. The Community-based Health Planning and Services (CHPS) are one of the more distinctive features of Ghana's public health system. Operationally, “CHPS is a national strategy to deliver essential community-based health services involving planning and service delivery with the communities. Its primary focus is communities in deprived sub-districts and in general bringing health services close to the community” In essence, CHPS involves a nurse working in a given geographical area and providing a limited set of curative and preventive healthcare services. CHPS is regarded as a proven method for eliminating disparities and fostering geographic access to primary healthcare (Awoonor-Williams et al., 2016)

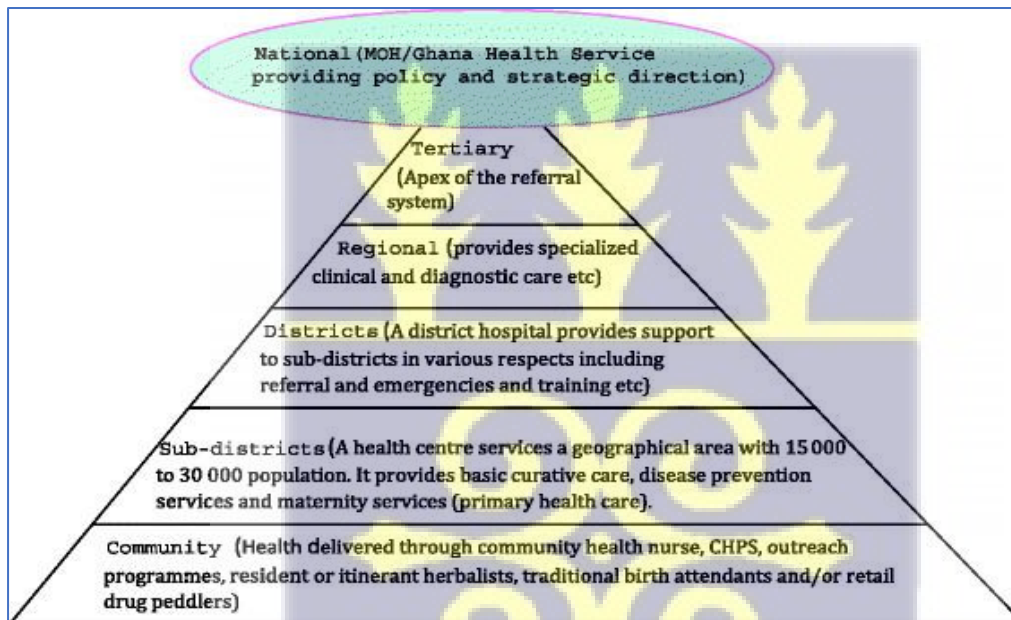


Figure III Organizational structure of Ghana health services delivery. Source: Awoonor-Williams et al

2.3 Management Level Factors in Family Planning Services

Management activities facilitates performance of health facilities in family planning services. It has very important ingredients, which serve as management control systems. These include setting targets with right management steps to support the facilities providing the FP services to be on their toes to achieving the targets. One of the management support activities is supportive supervision. Studies have asserted improved performance of staff through

supportive supervision. The findings from a study carried out in Nigeria indicated that supportive supervision can be used as a key strategy for on-the-job training and encouraging supervisors and supervisees to jointly identify issues and find solutions to them (Adetiloye, 2017). Moreover, in a study in Uganda affirmed that frequent training of Community Health Volunteers (CHV) by full-time Community Health Workers at the village level, along with supportive monthly supervision, enhances reproductive health-related activity by the CHV in the villages (Singh et al., 2016). In additions, a study carried out in Democratic Republic of the Congo stated that provider confidence to offer long-term methods, notably the IUD, rose as a result of the more frequent and high-quality clinical coaching on family planning skills provided during supportive supervision (Ho & Wheeler, 2018).

Also training enhances the skills of FP service providers, which translates into improve performance as supported by some studies. A study in Nigeria established that training and retraining of service providers is crucial, as are ongoing supervision visits to the service providers, if the benefits of this intervention are to be maintained. Through ongoing service provider capacity training and the provision of encouraging supervision visits (Adetiloye, 2017). In a study of comparison, clients who saw a provider without any training, those who were seen by a provider with family planning training were almost twice as likely to have the right information. (Assaf et al., 2017). To increase the quality of services provided at family planning centers, training and monitoring systems must be increased (Memon et al., 2017).

Performance feedback to health facilities also helps improve provider performance. Workplace spirituality is described as a work environment in which the leader and followers have a high level of commitment to completing tasks and achieving organizational goals. This was corroborated by a study which established that giving employees performance feedback enables them to understand what they should keep doing, stop doing, or start doing in order to

achieve a goal(Fachrunnisa et al., 2014). Cochrane confirmed that evaluation of the "audit and feedback" strategy for improving physician performance, it works better with underperformers when they receive regular verbal and written feedback from colleagues or supervisors and have defined goals and action plans(Kvach et al., 2018). It was also substantiated in a study that quality improvement strategy to improve professional practice is audit and feedback. It is established that clinician evaluation, audit feedback is provided at the governance level for the services audited. Where appropriate, feedback may also include evidence-based suggestions for improving clinical practice or the delivery of services(Ahmed et al., 2018).

Further to these, health financing, availability of means of transport motivates providers to implement certain FP activities with catchment area of the health facility. Providers can afford maintain and fuel the official motorbikes for integrated outreach activities. They can also procure other basic logistics necessary for FP activities. Sheahan et al. stated that it is crucial to comprehend the facility-level characteristics connected to the integration of family planning and child vaccination services in order to maximize the likelihood that postpartum contraceptive use would rise as a result(Sheahan et al., 2021). A study also confirmed that women were motivated to attend outreach clinics because of shorter travel distances; they felt confident they could access FP services and use contraceptive methods secretly if necessary; and when their husbands supported them, they felt empowered to start using contraceptive methods. On the supply side, service providers were empowered by the integrated services training they received, confident in their capacity to deliver necessary services, and inspired by teamwork and appreciation for their efforts(Hamon et al., 2020).

2.4 Consulting Room Factors in Family Planning

Sociocultural believes, perceptions myths, stigma, etc., of the general population attach to modern contraceptives hinders access to FP services. In qualitative study done in Uganda, it

was found out that people were motivated to have more births because of the strong idea that children are a gift from God, hence the only option to sustain the lineage was to have children to replace the dead (Kabagenyi et al., 2016). However, another qualitative study in Zambia revealed that women's experiences with the side effects of contraception, myths, rumours, and misconceptions, societal stigma, and unfavourable traditional and religious beliefs are all community-level barriers (Silumbwe et al., 2018).

All these make access to FP services socially unacceptable, hence the FP consulting rooms need to be well-resourced enough become a one-stop shop for both new and continuing acceptors of family planning services. There is also the need to ensure privacy and confidentiality so that when the woman “sneaks in” to the FP unit she can receive full FP services she requires. According to Beenson et al., the field of reproductive health continues to place a high focus on service confidentiality, especially for adolescents (Beeson et al., 2016). Many believed in a cross-sectional study involving 393 client interviews carried out in Laos People’s Democratic Republic that since many consultations were not held in a private setting, others may hear them or watch their treatment, and they feared that the information they supplied would not be kept confidential by a service provider (Thongmixay et al., 2020). In another study in Liberia, FP service providers emphasized the value of confidentiality and one-on-one interaction as factors that may influence women's desire to use FP services (Cooper et al., 2015).

Some providers promote only the methods available in their health facilities. According to Shukla et al. providers themselves placed limit the preferences according to the age and parity of the women, that their recommendations were frequently influenced by societal norms in the area, and that information about the method's side effects and follow-up was infrequently supplied (Shukla et al., 2020).

2.5 Supply factors in Family Planning

FP supplies are very important because it puts both the provider and the clients at ease, since providers will have wide range of methods to meet the needs of their clients. A study conducted in Niger concluded that the clients FP visits are crucial opportunities for providers to help women choose the method that best suits their needs and allay concerns about method side effects. This will help to ensure that all women have a full range of options to choose from when or if they want to use contraception (Maytan-joneydi et al., 2022).

Client pregnancy or suspected of pregnancy was the most frequently cited reason for turn away by providers during IDIs (Peterson et al., 2022)

An experimental study was carried out in the year 2016 on evaluation of a family planning mobile job aid for community health workers (CHW) in Tanzania. In this study, a mobile job aid was piloted. Data collection tools included a demographic survey of all 25 CHWs trained to use the mobile job aid, in-depth interviews with 20 of the CHWs after 3 months and a survey of 176 clients who received FP services from a CHW using the mobile job aid after 6 months. Both CHWs and their clients disclosed that the mobile job aid was a highly acceptable FP support tool. The advantages of CHWs to service quality are seen to include timely and efficient care, higher information quality, increased method choice, and improved privacy, confidentiality, and client confidence. Only one in ten clients reported discussing all nine FP approaches with CHWs, however the majority of clients did discuss multiple FP methods (Curry et al., 2015).

In a mixed method cross-sectional study design conducted in Ethiopia with 477 exit interviews concluded that since contraceptives are essential components of family planning programs, all designated health care providers should ensure that the essential contraceptives are in stock

(Abay et al., 2022). To improve family planning services, it is crucial to make various family planning methods available (Tamiru et al., 2020).

2.6 Human resource factors in Family Planning

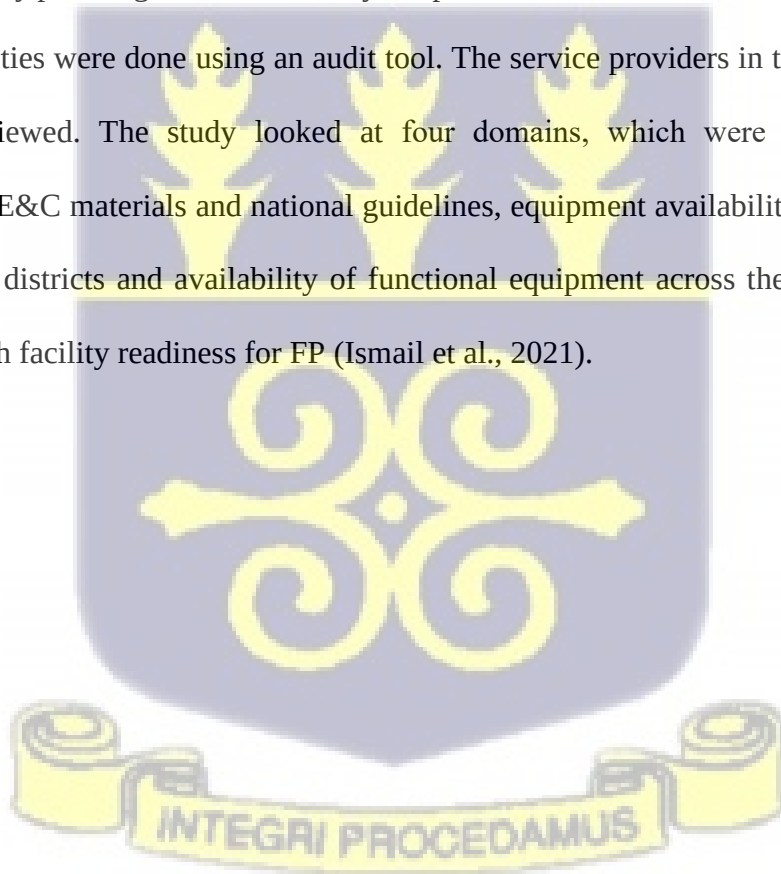
Human resource is the driver of all other FP domains in this study. Availability of technical person determines the quality of FP services, both in and outside the health facility. The skills of the human resources at a particular health facility also inform the types of method that becomes available to the clients. According to a qualitative study involving interview with 13 experts on FP concluded that participants in the study identified human resources as the strengths of FP program in Rwanda (Schwandt et al., 2018). According to a paper on priority strategies for India's family planning programme, the need to strengthen human resources management of the public health system has been repeatedly highlighted as one of the major impediments to the effective delivery FP services (Pachauri, 2014). It was established by a study that the availability of the techniques at the clinic and the provider's capacity to give health education in private options boosts good satisfaction from the clients (Nasr & Hassan, 2015).

2.7 Health facility readiness for FP

Readiness of health facility for a FP services is the state of being fully prepared to deliver quality FP services to most of the clients that need the services. To achieve that there is the need to conduct assessment of health facilities in all or specific service area(s). Many studies were done to evaluate service availability and readiness among health facilities within a defined geographical area. The readiness is defined if the facilities have the requisite infrastructure, equipment, trained staff for providing at least one clinical method and availability of either oral pills or condoms at the date of survey/observation (Sharma et al., 2022).

A cross-sectional Service Availability and Readiness Assessments (SARA) was conducted in 10 sub-Saharan African countries, among the 3161 health facilities offering HIV care and support services, between 2012 and 2015. To define the outcome of interest in this study, on-site accessibility to integrated FP services was done by using six indicators that describe the care structure and process necessary for FP service delivery in HIV care and support facilities. The interviewers directly observed and verified the availability of necessary facilities, tools, diagnostics, medicines, and supplies for the delivery of health services (Kanyangarara et al., 2019).

Also, a study was done in 4 districts in Pakistan using mixed method of study design, where postpartum family planning readiness to carry out particular tasks was evaluated. Comparisons within the facilities were done using an audit tool. The service providers in the facilities were in-depth interviewed. The study looked at four domains, which were client's privacy, availability of IE&C materials and national guidelines, equipment availability for FP services across the four districts and availability of functional equipment across the four districts to determine health facility readiness for FP (Ismail et al., 2021).



CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Design

A quantitative cross-sectional design method was used for this study. FP unit in-charges (Public Health Nurses, Midwives or Community Health Nurses) in all health facilities targeted at rendering family planning services were interviewed. This involved collection of primary data from participants of the study through face-to-face interviews and observation to confirm the availability of tracer items and their functionality, where needed.

3.2. Study Area

The study area is Sagnarigu Municipal in the Northern Ghana. There are six (6) sub-municipalities in Sagnarigu Municipality. Based on the 2021 Population and Housing Census, Sagnarigu Municipality has a total projected population of 348,887 people for the year 2022. Sagnarigu Municipal is selected for this study because it is one of the very low performing districts in FP coverage, but being the most endowed with the number of health facilities with FP units targeted at providing FP services in the Northern Region. According to DHIMS 2, Northern Region recorded one of the lowest in family planning coverage in the year 2021, however, the most populated region with highest fertility rate. Sagnarigu Municipality is located in the heart of Northern Region. It shares boundaries in the south with Tamale Metro and Central Gonja in Savannah Region, east by Tamale Metro, west by Tolon and Kumbungu Districts. It is also flanked by Savelugu and Nanton Districts at the northern part. In a table I is the distribution of health facilities within Sagnarigu Municipality by type, targeted at providing FP services.

Table I Distribution of Health Facilities Providing FP Services in Sagnarigu Municipality (Dec. 2022)

Sub-Municipality	Type of Facility					Total
	CHPS	Clinic	Health Centre	Hospital	Maternity Home	
Choggu	3	0	1	1	1	6
Garizegu	2	0	0	1	0	3
Kamina	6	1	1	3	1	12
Malshegu	4	0	0	0	0	4
Sagnarigu	2	1	2	0	0	5
Taha	10	0	1	1	0	12
Total	27	2	5	6	2	42

Source: DHIMS 2

3.3.0 Study Population

These are functional health facilities within the Sagnarigu Municipality. These health facilities include Hospitals, Polyclinics, Health Centres, Clinics, CHPS and Maternity Homes. Their management authority falls within Ghana Health Service (GHS), private, Mission/faith-based, Quasi-Government domains.

3.3.1 Inclusion Criteria

Health Facilities Target health facilities were those functional and providing family planning services within a quarter preceding the time of visit to the health facility for the interview. These were all health facilities providing family planning services within Sagnarigu Municipality in Northern Region.

Health Service Providers

The cardinal eligibility for participation was full time employed Public Health Nurses (PHNs), Midwives or Community Health Nurses (CHNs), heading or acting heads of family planning units of health facilities. They have also been given the mandate to supervise family planning activities both at the health facility and within the zone of the health facility.

3.3.2 Exclusion Criteria

Health Facilities

The functional health facilities located within Sagnarigu Municipality that ever provided but no longer providing family planning services.

Providers

The study excluded Public Health Nurses, Midwives and Community Health Nurses who were working in the selected facilities but not heads of the family planning unit of their health facility. Those on clinical/practical attachments, national service personnel and those granted study leave and leave of absence were not eligible to participate in the survey.

3.4.0 Sampling strategies

3.4.1 Sample Size determination

Health Facility

Based on WHO's Service Availability and Readiness Assessment (SARA) standards a census of the health facilities providing family planning services was considered (WHO, 2015). The study was conducted in 6 hospitals, 5 health Centres, 2 clinics, 27 CHPS and 2 maternity homes/clinics, all totalling 42 health facilities in Sagnarigu Municipal (DHIMS 2, 2022).

3.5.0 Study variables

Factors in this study were grouped into two; dependent/outcome and independent variables:

3.5.1 Dependent/Outcome Variable

The dependent variable was service specific readiness of health facility for family planning. Service-specific readiness is the ability of healthcare institutions to offer a particular service, and the capacity to do so is assessed by taking into account tracer items including trained employees, policies, tools, diagnostic capability, medicines, and supplies (WHO, 2015). In this study, service specific readiness of the health facility for FP services is the full capacity of

health facility to operate effective and efficient family planning unit that will render quality FP services to its clients. Readiness therefore in this study is dependent on the four domains, which are the availability of technical staff, a well-resourced consulting room for family planning services, management support and availability of supplies (all methods) at the level of the health facility.

Service specific readiness scores for FP ranges from 0% for no tracer items available to 100% for all tracer items available for service delivery. Overall facility readiness for FP services means every domain has all the tracer items available and fully functional, which attracts 100%. According to WHO SARA standards, service specific readiness is classified into two; ready or not ready. Readiness means overall (average score for the four domains) is $\geq 50\%$, while a score of < 50 implies a facility is not ready for family planning services.

3.5.2 Independent Variables

Independent or explanatory variables are mainly the four domains. These domains jointly contribute to the readiness of health facility for family planning services. Embed in each domain are the tracer items that make up the scores for each domain. Each domain has an overall readiness score of 100%. These are adapted from WHO Service Availability and Readiness Assessment tool (Sitti hawa, 2015). Below are the domains:

Management Domain

There are five (5) tracer items/indicators under management factors. Overall performance score for management level is 25%. Therefore, the absence or presence of a tracer item/indicators under management attracted a score of 0 and 6/6 respectively.

Consulting Room Domain

A total of 25 tracer indicators/items were considered under consulting room factors. These include presence or absence of conduciveness of the consulting room to promote audible and

visible privacy, availability of national guidelines for counselling on family planning, available of examination couch/bed and other necessary equipment for screening and rendering FP services to clients in the consulting room.

In addition to these were presence of hand washing facilities within the consulting room. Absence or presence of each tracer item under consulting room domain attracts a score of 0 or 25/25 respectively.

Supplies Domain

Supplies domain consists of the availability of 10 tracer items; therefore, non-availability or availability of a tracer item attracts a score of 0 or 10/10.

Human Resources Domain

This domain has 11 tracer indicators/items were considered under this domain, which are the presence of technical staff for family planning and the availability of technical staff to provide all the basic FP services. Absence or presence of each tracer indicator/item attracts a score of 0 or 11/11.

Sociodemographic characteristics of the health care workers

Data on sociodemographic characteristics were collected to describe such as age, sex, religious affiliation, educational level etc. of the respondents in this study.

Table II contains the variables under consideration for this study:

Table II Variables and Definitions

Variable	Operational definition	Scale of measurement	Type of variable
Dependent variable			
Health facility Readiness	full capacity to deliver FP services	Ratio	Categorical
Independent variables			

Age	Age of FP Unit in-charge (respondent) in completed years	Ratio	Categorical
Sex	Sex of provider (male or female)	Nominal	Categorical
Religion and religious denomination	Region of the provider (Christian, Muslim, Traditional etc, Branch of religion if any	Nominal	Categorical
Educational level	Highest level of education level attained	Ordinal	Categorical data
# educational sessions on FP	Number of health talks given to the public on FP	Ratio	Categorical
# communities with adolescent health clubs	Health clubs of which members are adolescents; last meeting not more than three months ago	Ratio	Categorical
Health facilities providing FP counselling at ANC	Facilities with dedicated staff providing counselling services to ANC Clients	Ratio	Categorical
Health facilities providing FP counselling at PNC	# of Facilities with dedicated staff providing counselling services to PNC Clients	Ratio	categorical
Health facilities with adolescent health corners	# of Facilities with dedicated room for adolescent health services	Ratio	Categorical
Health facilities with dedicated room for FP services	# of Facilities with dedicated room for FP services to Clients (Privacy)	Ratio	Categorical
Guidelines on confidentiality	Availability of written guidelines to assist providers on services to clients with confidentiality	Ratio	Categorical
Job aid for family planning	Availability of written job aid to assist providers on quality services to FP clients	Ratio	Categorical
Health facilities with means of transport used for Family planning services	Means of transport to assist Providers to reach all catchment communities with FP services	Ratio	Categorical
Commodity availability by type	All FP commodities available by types eg Depo, Norygynon	Ratio	Categorical
Tracking systems for FP Commodities	Availability of inventory control cards	Ratio	Categorical
Distribution of providers	# dedicated staff for FP at each facility	Ratio	Categorical
Skills of providers	Ability to provide FP services independently	Ratio	Categorical

3.6.0 Instrument Pretesting

As part of quality control activities in the research on the topic, a pre-test of the data collection tool (questionnaire), which was developed unto KoboCollect App was conducted. The tool was administered in Three (3) health facilities in the Tamale Metropolis. This activity followed the training of the three (3) research assistants recruited for data collection. The pre-test was supervised by the principal investigator and one other supervisor from the Northern Regional Health Directorate. Each of the research assistants had the opportunity to administer the tool while observed by the supervisors and based on their interactions, recommendations were considered for amendments in the data collection tool. These health facilities were identified based on the recommendations of the Tamale Metro Director of Health Services, who made verbal arrangements for the visit. These health facilities are:

1. Tamale Central Hospital
2. Tamale Central Health Centre
3. Zuo CHPS

The pre-test covered all the sections of the questionnaire.

Feedback was obtained from respondents during the pre-testing stage. This enabled the principal investigator to refine the survey tool to eliminate possible biases and ambiguities to allow for clear understanding of every question, based on the feedback obtained from respondents during the pre-testing stage.

3.6.1 Data Collection Methods, Tools and Techniques

Data Sources

Data were collected from two main sources; health facilities and family planning unit heads. A questionnaire was used to collect data from these two sources.

The questionnaire

The questionnaire is a standard tool adapted from WHO SARA and other studies based on SARA (M. Ali et al., 2018; WHO, 2015). Some other relevant indicators were also adapted from FP readiness assessment study in Kenya (Agwanda et al., 2009). The questionnaire was divided into six (6) sections: demographic information about the respondents and basic geographical information about the health facility in addition to the four domains for this study. This tool was used for face-to face interviews. It was developed into KoboCollect App and used phones to administer it on the field. The questionnaire elicited information from health facilities for assessment on readiness. The sections are:

Section A: Demographic Factors: it covered demographic information of the FP unit in-charges who responded to the questionnaire, which included sex, age in completed years, religious background, etc.

Section B: Geographic factors of the health facility: This section covered collection of data about the health facility information, where all the characteristics about the facilities involved were collected. Information such as type, location, ownership of the health facility, as well as population of catchment area, etc.

Section C: Management Factors: it covered management level factors of FP, such as trainings, performance feedback, budget for FP activities and supportive supervision on FP received from the district, regional and national levels.

Section D: Consulting Room factors: Data was also collected on consultin room factors, which included visible and auditory privacy, counselling, handwashing facilities, equipment, etc.

Section E: Supplies: Supplies factors of FP focused on availability of essential contraceptives to deliver family planning services, stock levels and existing control systems in place for these supplies.

Section F: Human Resource: Data on human resource characteristics, such as the number of providers and the FP method they have skills providing were collected.

3.6.2 Data Collection process

Research assistants made pre-arrangements with the FP unit or health facility in-charges for the convenient day and time for the interview. On the arrival of the health facility, research assistants introduced themselves to the head of the facility, who in turn introduced the research assistants to the FP unit heads, by way of permission before interactions began. The questionnaires were then completed in the order as it was on the KoboCollect App by the research assistants, based on the verbal responses of the interviewees. Responses of the health workers at each facility on the availability and functionality of tracer items/indicators were validated by interviewers before completing the questions that demanded validation/verification. The validation/verification was done through records review and observation. After completion of the questionnaire, research assistants would thank the FP unit heads and the facility heads before departing. Upon exiting the facility, the research assistants would send the completed questionnaire to the PI in the KoboCollect App, before moving to the next health facility. An average of two (2) health facilities were completed on a typical day.

3.7 COVID 19 safety measures

Research assistants were provided with phones for the completing the electronic data collection tool, hence no materials exchanged hands between them and the health workers. Research assistants were encouraged to wash their hands with soap under running water when moving from one health facility to the other. However, the research assistants were provided with hand

sanitizers to maintain hand hygiene during the course of their work. Research assistants were also given N-95 face mask on the field.

3.8 Quality Control Assurance

Steps were put in place to ensure data accuracy and data quality, and thereby limiting biases. These include supervision of the research assistants during data collection, validation of completed questionnaires and data cleaning before analyses.

3.9 Data Management

The completed electronic surveys were downloaded from KoboCollect App into Microsoft Excel. Data was stored on a dedicated storage device as an original copy. Copies were made unto other storage devices as well for analyses. Facility readiness score was arrived at by computing the arithmetic mean of the four domains (Total Management, Total Consulting room, Total supplies, and total human resource) performance scores in this study.

$$A = 1/N \sum_{i=1}^4 a_i$$

A = Arithmetic mean

N = number of domains

a_i = domain scores

3.10 Data Analysis

STATA software was used for data analysis. In this study, most of the responses are categorical, hence data were descriptively analysed with frequencies tables and charts for providers' socio-demographic data, such as age, sex composition and religious backgrounds in Sagnarigu Municipality. Some key geographical (facility catchment area) profile indicators and human resource indicators related to family planning by health facilities were also analysed descriptively. Further analyses included description of consulting room such as privacy in the

consulting room, counselling; supplies situation such as availability commodities, equipment, budget and motorbike for FP at the health facilities. Other analyses covered supports received from regional and district management levels in terms of trainings, technical support and performance feedback on FP. Description of Human Resource for FP at the health facility level was also done. Frequencies with tables were generated. Readiness score, being the composite score of management, supplies, consulting room and human resource factors of FP in the health facilities was determined. There are four constituents making up 100%. The four constituents are the Supplies Factors, Management Factors, Consulting Room(infrastructure) Factors and Human Resource Factors. Each domain score was generated as total available tracer items as against expected tracer items and expressed in percentages (%). The arithmetic mean for the four domain totals amounts to the composite score for facility readiness for family planning services in the municipality in this study.

3.11 Ethical Consideration

The Ethical Review Committee of Ghana Health Service approved the protocol for this research work with ethics approval number GHS-ERC 030/12/22. Permission was also granted by the Northern Regional Health Directorate with introductory letter to Sagnarigu Municipal Health Directorate to collect data for this research (Appendix IV). Introductory letter was given by Sagnarigu Municipal Health Directorate to the health to sub-municipalities and facilities (Appendix V). Before responding to the research questionnaire, participants in the study were given the assurance of anonymity and had their consent obtained. The goal, procedures, risks, and advantages of participating in the study were fully explained to the participants. They were made aware that they had the option to stop the study at any time and without consequences. Participants in the study were advised that there was no risk in taking part and that the data collected would not include their names or other forms of personal identification. The lead investigator and supervisors only had access to the collected data in a secured form.

CHAPTER FOUR

4.0 RESULTS

4.1 Characteristics of health facilities for FP services in Saganarigu Municipality

Out of a total of 42 health facilities assessed for readiness for FP services in Saganarigu Municipality in the Northern Region, 64% (27/42) were CHPS, 16% (7/42) were Health Centres, 14% (6/42) Hospitals, 2.4% (1/42) each being a clinic and also a Maternity Home.

By ownership, 81% (34/42) of the surveyed facilities were owned by Government, 14.3% (6/42) were privately owned and 4.8% (2/42) were quasi-government facilities. By structure (building), 64% (35/42) are with structures, while 16.7% (7/42) are without structures. In terms of where FP services are provided to clients at the facility, 40% (17/42) of the health facilities provided FP services at the ANC, 38.1% (16/42) at the designated consulting rooms for FP, 16.7% (7/42) provided family planning service under open sheds and 4.8% (2/42) at the health facility OPDs, as in table III:

Table III Characteristics of Health Facilities providing FP services in Saganarigu Municipality

Type of Health Facility	Frequency	%
CHPS	27	64.3
Health Centre	7	16.7
Hospital	6	14.3
Clinic	1	2.4
Maternity Home	1	2.4
Total	42	100.0
Facility Ownership	Frequency	%
Government	34	81.0
Private	6	14.3
Quasi-Government	2	4.8
Total	42	100.0
Facility with structure	Frequency	%
Yes	35	83.3
No	7	16.7
Total	42	100.0

where is the FP service usually provided to clients at the facility?

	Frequency	%
ANC	17	40.5
Designated FP Room	16	38.1
Open shed	7	16.7
OPD	2	4.8
Total	42	100.0

4.2 Characteristics of health workers(respondents)

A total of 42 individuals were interviewed:

These included midwives 54.8% (23/42), Community Health Nurses 35.7% (15/42), PHNs 4.8% (2/48) and other categories 4.8% (2/42). The mean age for the respondents was 34.9 years.

A majority of the family planning providers were Muslims 59.5(25/42). Almost all the family planning providers 95.2% (40/42) were females. A majority of the family planning providers schooled up to the diploma level. 57% (24/42) as seen in Table IV.

Table IV Characteristics of Health Workers (Respondents)

Category of staff (Respondent)	Frequency	%
Midwife	23	54.8
Community Health Nurse	15	35.7
Public Health Nurse	2	4.8
Other	2	4.8
Total	42	100.0

Religion of the respondent	Frequency	%
Islamic	25	59.5
Christianity	17	40.5
Total	42	100.0

Sex of respondent	Frequency	%
Female	40	95.2
Male	2	4.8
Total	42	100.0

Level of education	Frequency	%
Bachelor Degree	5	11.9
Certificate	13	31.0

Diploma	24	57.1
Total	42	100.0

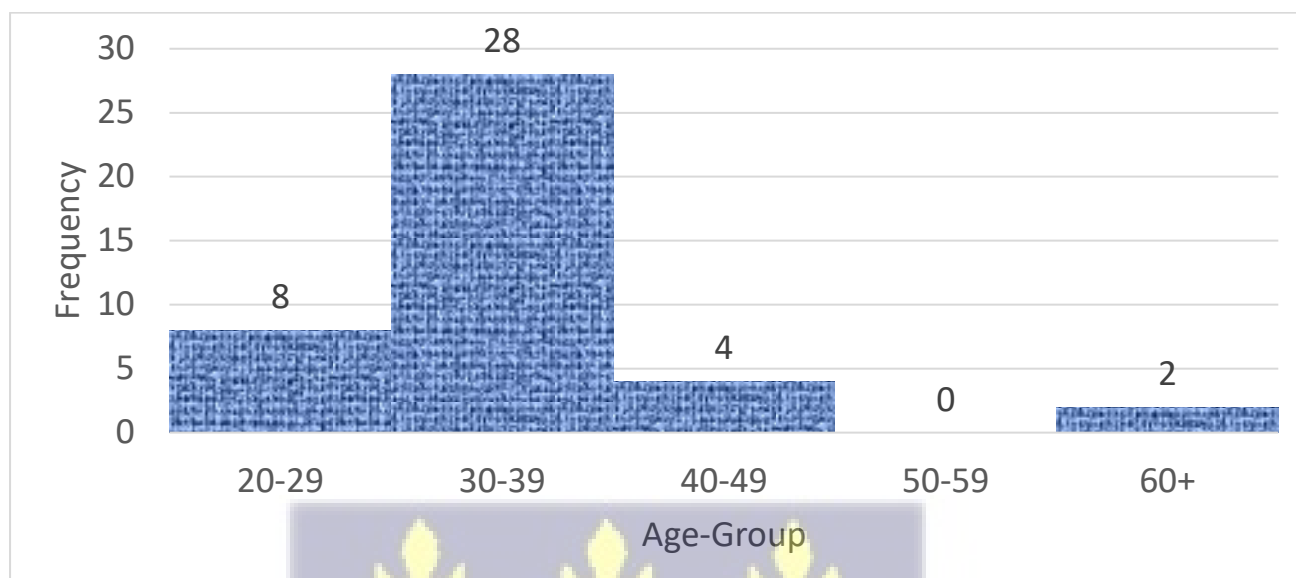


Figure IV Ages of respondents -Sagnarigu Municipality

4.3 Readiness by Domains

A total of 42 health facilities were assessed for the four domains, which accounted for the overall facility readiness for each facility and also for all facilities across the municipality:

4.3.1 Objective 1: Management Domain

Five (6) tracer indicators generated management level readiness score of 64.3% for all the 42 health facilities assessed in Sagnarigu Municipality. The highest and the least performing indicators were the availability of dedicated funds/budgets for FP activities and means of transport(motorbikes) for outreach activities. All the 42 health facilities, 100%(42/42) of had received funding/budgets to carry out FP activities, while 26.2%(11/42) have functional motorbikes for outreach services.

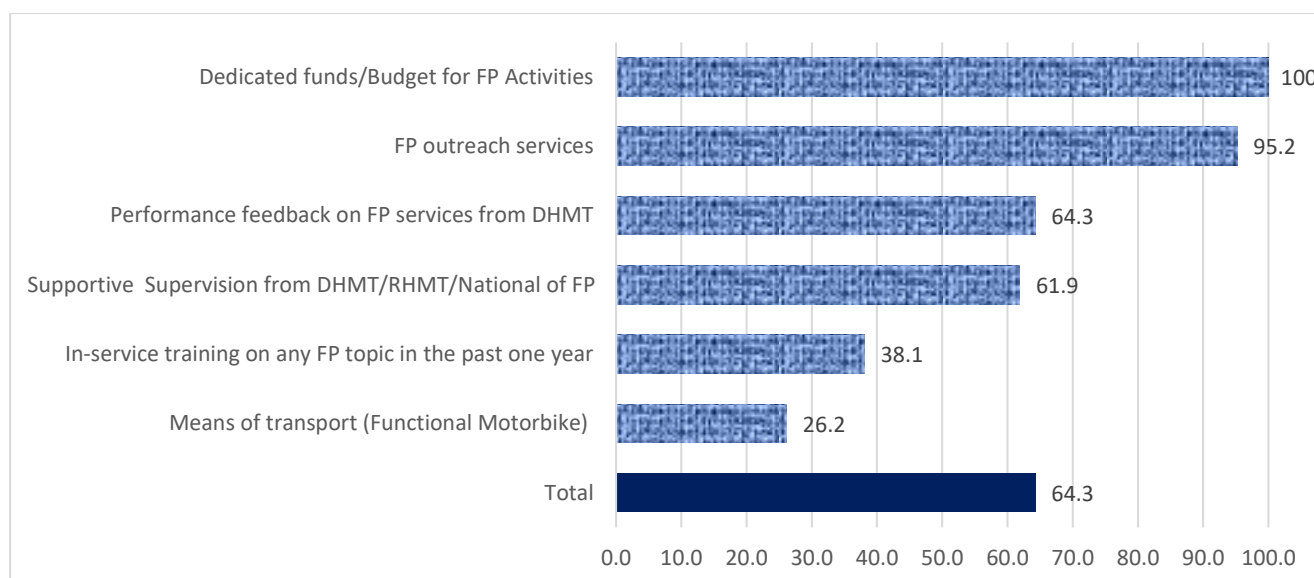


Figure V Performance of 42 health facilities by Management Domain – Sganarigu Municipality

Table V contains performance of health facilities for management domain readiness. Out of the total of 42 health 69.0% (29/42) were ready by management domain, while 31.0% (13/42) were not ready.

Table V Distribution facilities by total readiness under management

Readiness by Management	Frequency	%
Yes ($\geq 50\%$)	29	69.0
No ($< 50\%$)	13	31.0
Total	42	100.0

4.3.2 Objective 2: Consulting Room Domain

Figure VI depicts the performance of the Consulting Room domain. Under this domain falls 25 tracer indicators for the 42 health facilities. The best performing indicator was the availability of FP registers. FP register was available in all the health facilities 100% (42/42). The worst performing indicator was the availability examination light 14.3%; this was followed availability of uterine sound and vaginal speculum 21.4% (9/42) each. The total score for this domain was 48.7%.

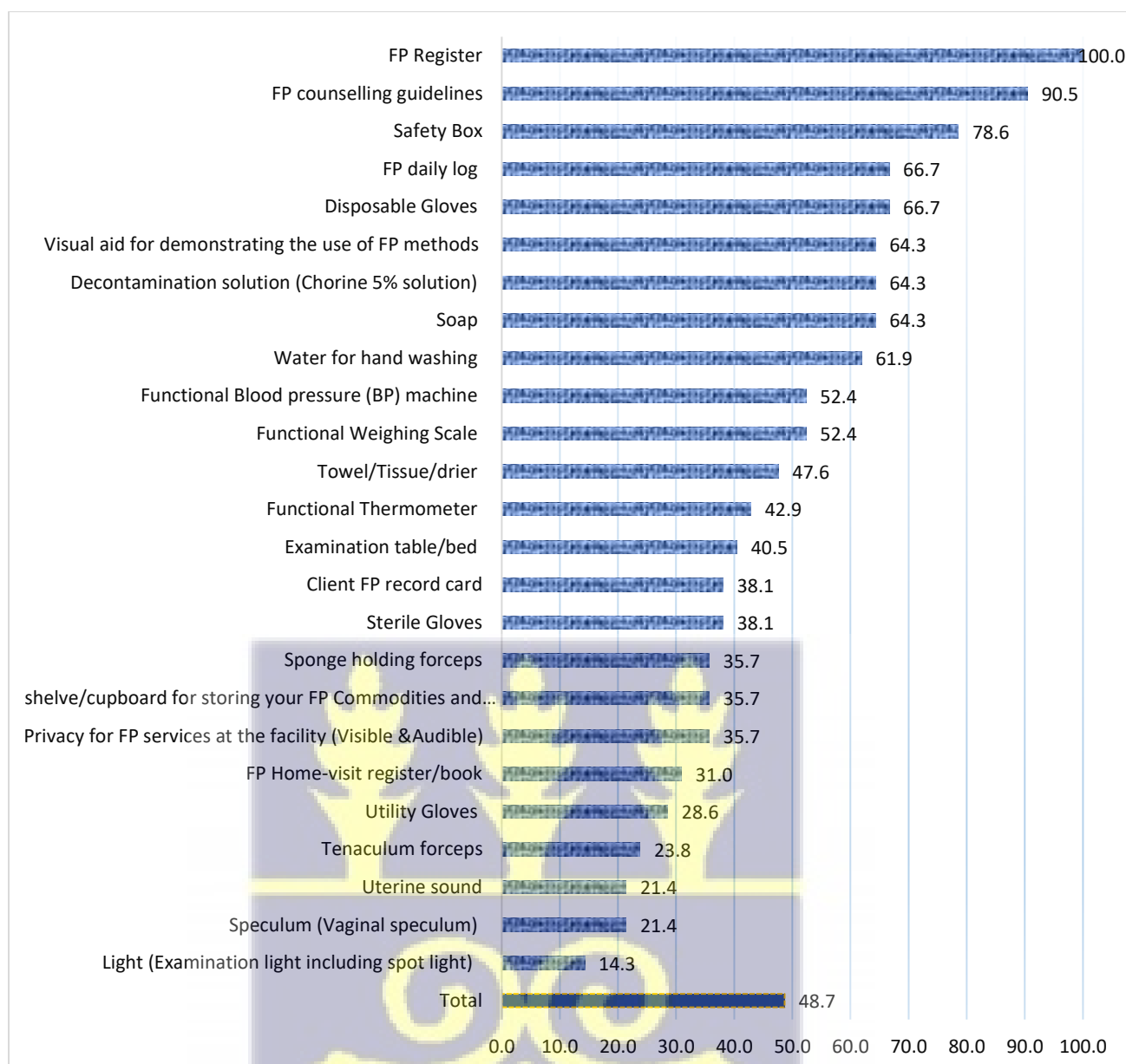


Figure VI Performance of 42 health facilities by Consulting Room Domain – Sagnarigu Municipality

Table VI shows the distribution of health facilities by total readiness under consulting room. By consulting room domain, 50.0% (21/42) were ready, while the rest of the facilities 50.0% (21/42) were not ready for family planning service provision.

Table VI Distribution facilities by total readiness under consulting room domain

Readiness by Consulting room	Frequency	%
Yes ($\geq 50\%$)	21	50.0
No ($< 50\%$)	21	50.0
Total	42	100.0

4.3.3 Objective 3: Supplies Domain

Figure VII shows the performance of the FP supplies domain. The least performing indicator was the availability female condoms 2.4% (1/42); followed by emergency contraception 7.1% (3/42), cycle beads 16.7% (7/42), IUD/IUCD 26.2% (11/42), etc. The best performing indicator was the availability of FP injectables accounting for 97.6% of the health facilities. This was followed by the availability of updated bin cards, implants, FP pills constituting 95.2%, 85.7%, 83.3% respectively. The total Supplies domain performance was 51.9%.

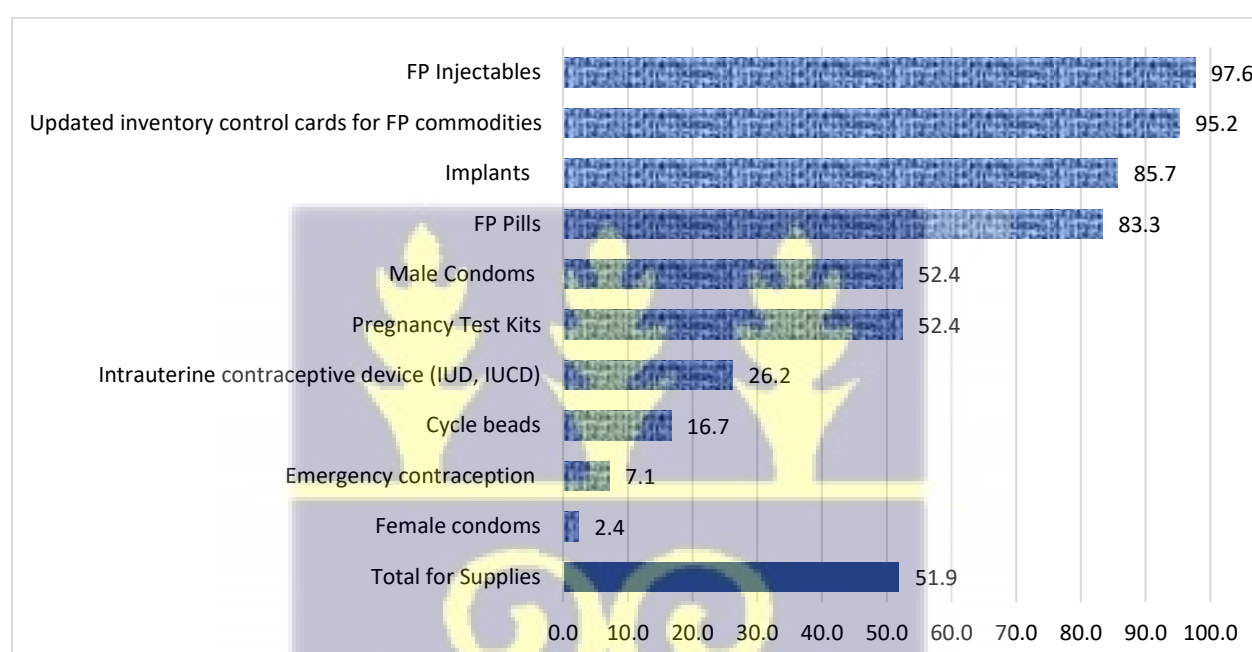


Figure VII performance of 42 health facilities in Supplies Domain - Saganarigu Municipality

Table VII depicts the distribution of total readiness by supplies domain. Under supplies, 71.4% (30/42) health facilities were ready, but 28.6% (12/42) were not.

Table VII Distribution facilities by total readiness under supplies domain

Readiness by Supplies	Frequency	%
Yes ($\geq 50\%$)	30	71.4
No ($< 50\%$)	12	28.6
Total	42	100.0

4.3.4 Objective 4: Readiness by Human Resource Domain

Table VIII contains the performance scores for human resources domain, based on the tracer indicators. A total score of 88.1% was achieved for the 11 tracer indicators under human resource domain. There was availability of at least one technical person for FP services in all the 42(100%) facilities assessed. These technical staff were able to provide services for pills and injectables without support. The least FP methods these staff can provide was IUD (Intra-Uterine Contraceptive Services; only 35.7% (15/42) of all the health facilities assessed are capable of providing it.

Table VIII Performance of 42 health facilities by human resource domain

DOMAIN	Tracer indicators/Items	No. of facilities with tracer items observed	No. of health facilities	Percent of facilities with tracer items
HUMAN RESOURCE	Availability of at least 1 technical person	42	42	100.0
	How many staff are able to prepare monthly FP report without supervision?	41	42	97.6
	Technical staff can provide the following services:			
	Pills	42	42	100.0
	Injectables	42	42	100.0
	Male condoms	41	42	97.6
	Implants	40	42	95.2
	Lactational amenorrhea Methods	39	42	92.9
	Emergency contraception	38	42	90.5
	Female condom	36	42	85.7
	Standard day method (Natural Method) using cycle beads	31	42	73.8
	Intrauterine contraceptive device (IUD, IUCD)2	15	42	35.7
	Total for Human Resources	407	462	88.1

Table IX contains the distribution of health facilities by total readiness under human resources.

For human resources readiness, all the facilities assessed 100.0% (42/42) were ready.

Table IX Distribution facilities by total readiness under human resource domain

Readiness by Human Resource	Frequency	%
Yes ($\geq 50\%$)	42	100.0
No ($< 50\%$)	0	0.0
Total	42	100.0

4.4.5 Objective 5: Overall facility readiness

The best performing domain was human resource with 88.1%. Management domain placed second, followed by supplies with 64.3% and 51.9% respectively. The least performing area for the entire Sagnarigu Municipality was Consulting room with 48.7%. The overall facility readiness for FP services was 63.2%.

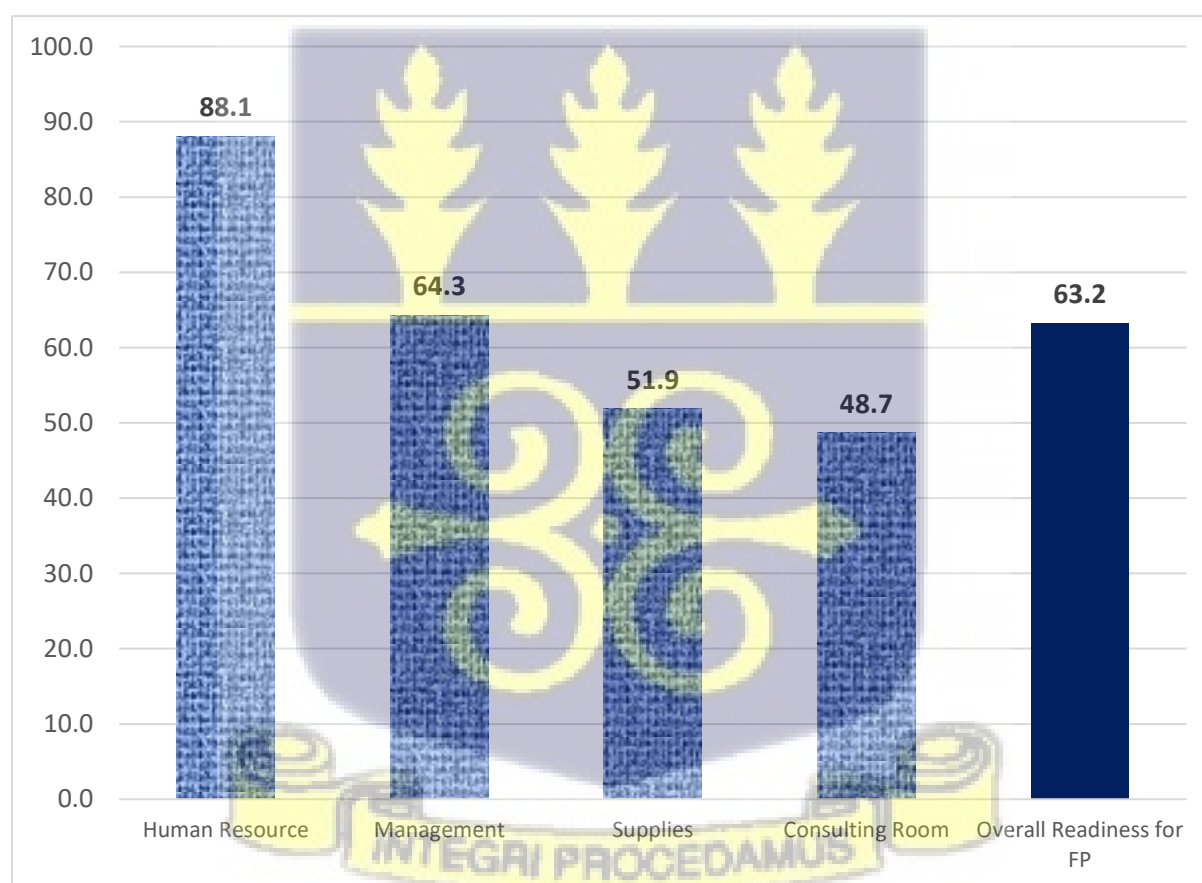


Figure VIII Overall facility readiness for all the 42 health facilities - Sagnarigu Municipality

In table X is the distribution of health facilities by overall facility readiness for FP services. By the criteria for overall readiness, 81.0% (34/42) health facilities were ready for FP services, while 19% (8/42) were not ready.

Table X Distribution health facilities by overall readiness for FP services

Overall Readiness	Frequency	%
Yes ($\geq 50\%$)	34	81.0
No ($< 50\%$)	8	19.0
Total	42	100.0



CHAPTER FIVE

5.0 Discussion

This chapter discusses health facility readiness for family planning services and the factors influencing it, as found in this study. The general goal of this study was to evaluate the health facilities' readiness for family planning services. Assessment of FP service specific readiness of health facilities was done by assessing various factors under each of the four main domains per groupings according to the conceptual framework for this study. Total FP Management level domain, total FP consulting room domain, total FP supplies domain and total FP human resource domain were identified to be possible factors to influence health facility readiness for family planning services. The study considered all factors under each of the four domains to determine the total domain performance. More than half of the health facilities assessed in Sagnarigu Municipality are ready for family planning services by the WHO SARA standard.

In addition, data was collected from all types of health facilities in the health system, which included CHPS, maternity homes, clinics, health centres and hospitals in order to estimate how factors identified contributed to the total domain performance. The total performance of the four domains was also used to estimate the overall facility readiness for family planning.

This study adds to knowledge about the state of structures for family planning services in health facilities, in terms of total domain performance and overall readiness of the health facilities assessed. The study will make the policy-makers aware about how the health facilities fare in the domains and health facility readiness for FP and what can be done to improve on the health facility readiness for family planning services.

5.1 Management factors of health facility FP services

Management activities implemented were observed in all the health facilities assessed. Total management domain in the health facilities was fairly strong across entire health system.

Funding/budget availability for FP activities, ability of the health facilities to render outreach services, performance feedback, as well as supportive supervision greatly influenced the total management domain. In-service training on any FP topic in the past one year received by health workers and availability of means of transport (functional motorbikes). This is supported by a study carried out in Kenya, where regular management meetings, the availability of FP guidelines and refresher training for staff in FP were important factors in determining whether a facility was ready to render FP services (Bintabara et al., 2017). Also, a study conducted in Mozambique mentioned that there exists a positive correlation between managerial performance and the likelihood of improvement in FP service readiness (M. Ali et al., 2018).

5.2 Consulting room factors of health facility FP services

Consulting room factors affect family planning a great deal. Presence of both visible and audible privacy in the consulting rooms will stimulate healthy conversation between the clients and the providers and hence promote uptake of family planning services. Also, the non-availability of very important equipment and logistics in the consulting rooms can hamper the quality of service delivery by providers as without equipment a lot of preliminary assessments leading to the right care cannot be achieved. Ill-equipped consulting rooms do not boost provider confidence. It also does not enhance job satisfaction on the side of the providers. The absence of IPC infrastructures in the consulting rooms can become disastrous as it can put both the clients and the providers at great risk of cross-infections. In this study, the performance of the consulting room domain was generally poor, as most of them were not well resourced. Some of the facilities too did not have consulting rooms at all, hence provide services to FP clients under the open shed or at the health facility's OPD. At most of most of the health facilities the FP services were provided at the Ante-Natal Clinics, hence it was difficult to isolate the tracer items that were specifically for FP services.

They fear that pharmacists, who have less time, less privacy, and fewer resources, may find the task even more difficult given that many specialized specialists themselves find it embarrassing to discuss private matters in the consulting room (Quilliam, 2014).

5.3 Situation of FP supplies

Availability of FP supplies across all the types of health facilities in the health system determines the methods of choice available for the clients. Supplies domain performed was ready in this study. A study conducted in Kintampo, Ghana reiterated that though it is the established fact that family planning can minimize maternal fatalities, most low- and middle-income countries are challenged to implement it due to limited supplies and irregular utilization (Nettey et al., 2015). In Malawi by linking the usage of family planning methods with the availability of contraceptive supplies in the community service environment, the study adds to the body of research showing a connection between access to contraceptives and the prevalence rate of contraception (Skiles et al., 2015). It was realized out of 2012 London Summit on FP that the non-availability of key contraceptives makes a programme a failure even where FP services are present in a facility. The creation, revision, or implementation of policies to guarantee contraceptive security, including consistent access to a variety of techniques within the public, private, and nongovernmental sectors, will be part of wise investment in FP programmes (Newman & Feldman-Jacobs, 2015). In Pakistan, it was established in a study that frequent stock out and interrupted supplies have resulted in the dropout of FP clients (Zafar & Shaikh, 2014).

5.4 Human resource factors of health facility FP services

Human resources availability was assessed in this study. This was the best performing domain with a total score of 81.1% as against the SARA threshold of $\geq 50\%$. The is score influenced

greatly the health facility readiness for FP services. Many studies were done across the world that corroborated the major contributions of human resources in contraceptive uptake.

A study done in Pakistan substantiated the fact that development of skilled human resource is one of the measures to improve contraceptive prevalence rate when targeting female population with high fertility risk (A. Ali et al., 2022). Also a study conducted in Zambia confirmed that one of the major causes of low maternal healthcare services uptake absence of skilled human resource for healthcare at community level (He et al., 2020).

The findings in a study conducted in Egypt supported the fact that the majorities of the clients interviewed were satisfied with the provided skills and counselling about various FP methods. They also have the plans to revisit the providers for services in the near future. Additionally, it was proven from the study that the one of the important factors influencing the satisfaction of the clients being women was the health care provider (Ahmed Mohamed et al., 2017).

Findings from a study in Ethiopia asserted that perceived clinical the perceived informed decision score would increase by 0.187 units if the providers' competence increased by one unit (Walle & Woldie, 2017).

5.5 Health facility readiness for FP services

Overall facility readiness for family planning is influenced in this study by management, Consulting room, supplies and human resource domains. The WHO SARA defines readiness of the health facility to provide a specific service the assessment score must be $\geq 50\%$, whereas in this study the overall readiness for FP services was 63.2%. The most influential domain on the readiness score was the total human resources and the least influential was consulting rooms scores. In order to achieve the target of rendering quality family planning services to the clients there is the need to improve on all the four domains. This was corroborated by a study conducted in 10 countries in Africa, where additional health worker training is necessary to

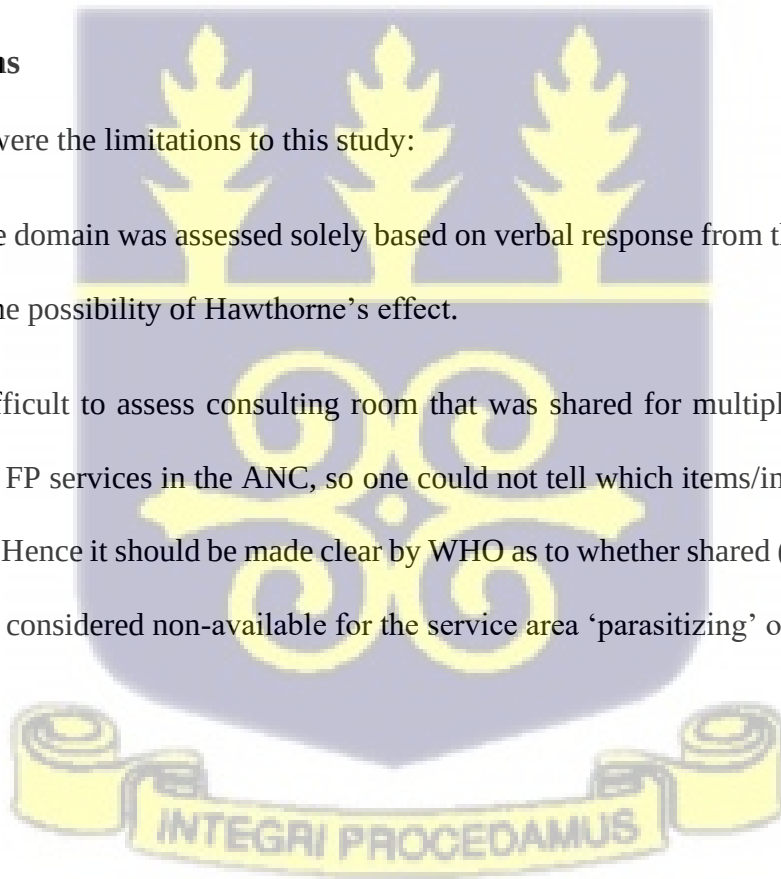
address many of the difficulties. It also mentioned that the availability and preparedness of health systems to provide contraceptive products and services must be improved if universal health coverage goals for family planning are to be met (M. Ali et al., 2018). A study conducted in Ethiopia also recommends that to achieve satisfaction of FP clients requires that availability of supplies, equipment, qualified employees, and IEC materials at the family planning clinics of the primary health care centers must be improved (Tafese et al., 2013). Therefore, to achieve the country's target, policymakers, implementers and all other stakeholders to consider sharpening the skills of providers, consciously work jointly to improve on the state of consulting rooms, supplies, as well as maximum technical and managerial support to position all health facilities in meeting needs of the clients.

5.6 Limitations

The following were the limitations to this study:

Human resource domain was assessed solely based on verbal response from the health worker, hence there is the possibility of Hawthorne's effect.

Also, it was difficult to assess consulting room that was shared for multiple services; some facilities render FP services in the ANC, so one could not tell which items/indicators is solely for FP services. Hence it should be made clear by WHO as to whether shared (borrowed) tracer items should be considered non-available for the service area 'parasitizing' or not.



CHAPTER SIX

6.1 Conclusion

This study has assessed the readiness of health facilities to provide family planning (FP) services in Sagnarigu Municipality, Northern Ghana, using the WHO Service Availability and Readiness Assessment (SARA) standards. The findings reveal a mixed picture of readiness across different domains:

1. **Management Domain:** The readiness in the management domain reflects the importance of administrative support, funding, and strategic planning, consistent with studies that highlight managerial performance as a key factor in FP service readiness. In this study, management domain was ready for FP services among the majority of the health facilities in Sagnarigu Municipality.
2. **Consulting Room Domain:** The lack of readiness in the consulting room domain underscores the need for improvements in privacy, equipment, and infection prevention and control (IPC) infrastructure. Consulting room domain was generally not ready for FP services in most of the health facilities assessed in this study.
3. **Supplies Domain:** Though just slightly above the SARA pass mark, the readiness in the supplies domain emphasizes the necessity of consistent availability of contraceptives and related supplies across all the 42 health facilities.
4. **Human Resource Domain:** The human resource domain emerged as the strongest area, reflecting the critical role of skilled personnel in contraceptive uptake. This is supported by global research underscoring the importance of skilled human resources in improving contraceptive prevalence rates. This domain boosted the overall readiness of health facilities.

5. The overall readiness score for all the 42 health facilities assessed in this study was good. This indicator assessed the general performance of the management, consulting room, supplies, and human resources domains.

6.2 Recommendation

Overall, the readiness of health facilities in Sagnarigu Municipality is promising, yet targeted improvements are necessary, particularly in consulting room facilities and supplies availability. This study's findings contribute valuable insights for policymakers, practitioners, and researchers, guiding efforts to strengthen the FP service delivery system in Northern Ghana and similar contexts. The emphasis on human resource strength and the identified gaps in infrastructure and supplies present a clear roadmap for targeted interventions to achieve universal access to quality FP services, in line with national goals and global commitments such as Sustainable Development Goal (SDG) target 3.7.

Based on the performance scores of health facilities assessed in the readiness for FP services study in Sagnarigu Municipality, Northern Ghana, using the WHO Service Availability and Readiness Assessment (SARA) standards, The following are recommended:

1. Management Domain: all key stakeholders (MOH, GHS national to District, Other partners in health) should target administrative support, funding, and strategic planning towards FP services, especially in capacity building of staff, supportive supervision to sharpen the skills of FP service providers and provision of motorbikes to enhance outreaches for all services including FP. The Sagnarigu District Health Management Team should provide regular performance feedback to health facilities providing FP services to encourage improved performance.

2. Consulting Room Domain: the Ministry of Health, its agencies and key partners need to resource the consulting rooms for FP well with modern equipment and infection prevention and control (IPC) infrastructure to improve on FP clients' confidence and privacy. The ministry of health should also sensitize its key stakeholders such as the politicians, NGOs and Community Health Management Committees to adhere to MOH approved/ recommended building plan for construction of CHPS in Ghana. This will facilitate compartmentalize various services including FP to enhance privacy, confidence of clients and staff a great deal.
3. Supplies Domain: to improve on access to modern contraceptives and give the opportunity for clients to make choices of preferred PF methods, the MOH and its key partners, Regional Health Directorate and Sagnarigu DHMT should ensure regular and adequate supply of all FP commodities to all health facilities providing FP services.
4. Human Resource Domain: to enhance contraceptive uptake in Sagnarigu Municipality, there is the need for the Northern Regional Health Directorate and Sagnarigu DHMT should ensure fair supply of skilled human resource to all facilities providing FP services.

If the above recommendations are implemented well, the overall readiness score will improve drastically and conversely improve on contraceptive uptake is expected to improve drastically.



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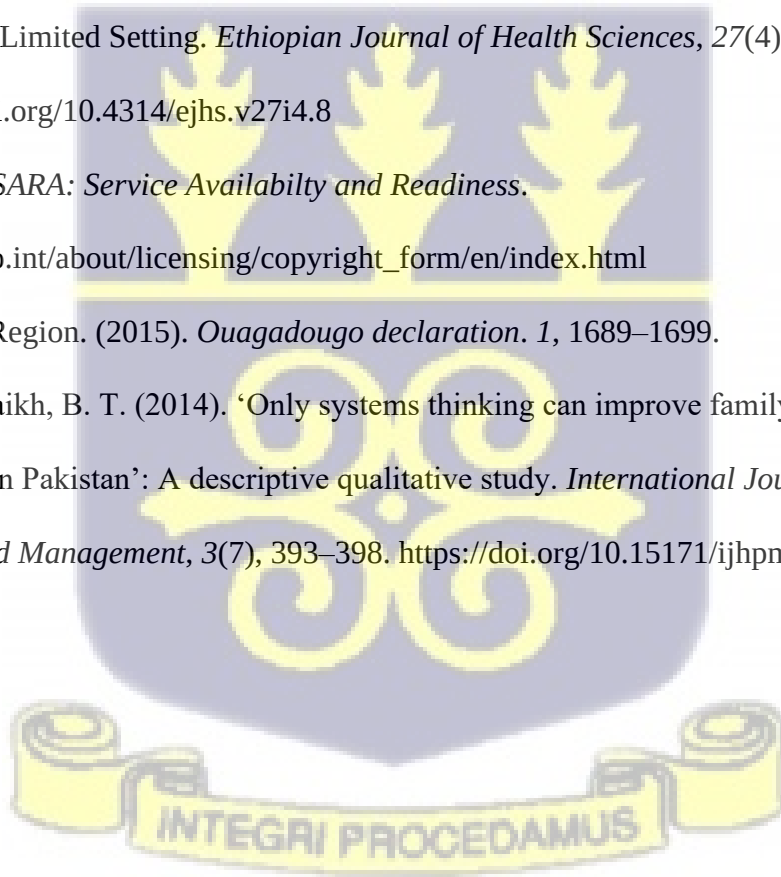
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Appendix I:

Questionnaire

Respondent ID

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**SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF GHANA, LEGON**

Title of Project: Assessment of Health Facility Readiness for Family Planning Services in the Sagnarigu Municipality in the Northern Region of Ghana.

Hello Sir/ Madam, my name is **Welbeck Kwesi Akplu**, a student at the School of Public Health, University of Ghana, Legon reading **Masters in Public Health (MPH)**. I am conducting this study on Assessment of Health Facility Readiness for Family Planning Services in The Northern Region of Ghana. The purpose of this research is to evaluate the capacity of Northern Region in provision of health facility-based family planning services to its clients, by assessing availability and functionality of key resources. There is no risk associated with this study. However, some questions may require confirmation of resource and this may require some photos of them. The questionnaire may be completed in a maximum of 40 minutes. I would like to assure you that any information you provide will be strictly confidential; and will be used only for the purposes of this research and never be used against you. Your participation is voluntary, and you may stop the interview at any time.

Do I have your permission to continue? Yes [☐] No [☐]

Date of Interview: ____ / ____ / 2023

NO.	PART A: FACILITY INFORMATION	
1	Sub-District	
2	Type of Health Facility	Hospital.....1 Polyclinic2 Health Centre.....3 Clinic.....4 CHPS.....5

		Maternity Home.....6 Other; Specify:.....7
3	Facility Ownership	Government..... 1 Military.....2 Private.....3 NGO.....4 School.....5 Mission/ Faith-Based: 6 Other, Specify:.....7
4	GPS Coordinate	Number
5	Infrastructure	Yes/No
Part B SOCIO-DEMOGRAPHIC INFORMATION		
1	Sex of respondent	Male/ Female
2	Age of respondent	Number in completed years
3	Level of education	Certificate, Diploma, 1 st Degree, 2 nd Degree
4	Religion of the respondent	Christian, Muslim, Traditional, None
5	Category of staff (Head of FP Unit)	Public Health Nurse, Midwife, Community Health Nurse, other; specify.....
6	Years of work experience	Number in completed years
7	Number of years working in the family planning space	Number in completed years
SECTION C: FACILITY GEOGRAPHICAL INFORMATION		
1	WIFA (women in reproductive ages) population	Number
2	What is the total number of communities in your facility's catchment area?	Number
3	What is the number of outreach service points in your facility catchment area?	Number
4	What is the number of functional adolescent clubs in your facility catchment area?	Number
5	What is the number of FP educational sessions conducted in the last quarter?	Number
6	What informs your choice of educational topic on FP?	Option: what I can say best, data, others:specify
SECTION D: MANAGEMENT LEVEL		
1	Means of transport (Functional Motorbike)	Yes / No
2	FP outreach services	Yes / No

3	Dedicated Funds/Budget for FP activities	Yes / No
4	Performance feedback on FP services from DHMT	Yes / No
5	In-service training on any FP topic in the past one year	Yes / No
6	Mgt Supportive Supervision to facility in last quarter	Yes / No
SECTION E: EXAMINATION ROOM		
1	where is the FP service usually provided to your clients at the facility?	
	Does your facility have the following functional at the FP Unit?	
2	Privacy for FP services at the facility (Visible & Audible)	Yes / No
3	shelve/cupboard for storing your FP Commodities and reports	Yes / No
4	FP counselling guidelines	Yes / No
5	Functional Weighing Scale	Yes / No
6	Functional Thermometer	Yes / No
7	Functional Blood pressure (BP) machine	Yes / No
8	Examination table/bed	Yes / No
9	Light (Examination light including spot light)	Yes / No
10	Speculum (Vaginal speculum)	Yes / No
11	Uterine sound	Yes / No
12	Sponge holding forceps	Yes / No
13	Tenaculum forceps	Yes / No
14	Water for hand washing	Yes / No
15	Soap	Yes / No
16	Towel/Tissue/drier	Yes / No
17	Disposable Gloves	Yes / No
18	Sterile Gloves	Yes / No
19	Utility Gloves	Yes / No
20	Decontamination solution (Chorine 5% solution)	Yes / No
21	Safety Box	Yes / No
22	Visual aid for demonstrating the use of family planning methods	Yes / No
23	FP Register	Yes / No
24	FP daily log	Yes / No
25	Individual client FP record card	Yes / No
26	FP Home-visit register/book	Yes / No
SECTION F: SUPPLIES		
1	Does your Unit have the following supplies in stock	
2	Pregnancy Test Kits	
3	FP Pills	Yes / No

4	FP Injectables	Yes / No
5	Male Condoms	Yes / No
6	Female condoms	Yes / No
7	Emergency contraception	Yes / No
8	Implants	Yes / No
9	Intrauterine contraceptive device (IUD, IUCD)	Yes / No
10	Cycle beads	Yes / No
11	Updated inventory control cards for FP commodities	Yes / No
SECTION G: HUMAN RESOURCE		
1	Number of Midwives	Number
2	Number of Public Health Nurses	Number
3	Number of Community Health Nurses	Number
4	Others	Number
5	Availability of at least 1 technical person	Yes/ No
	How many technical staff are able to provide the following services to clients without support?	
6	Pills	Number
7	Injectables	Number
8	Male condoms	Number
9	Female condom	Number
10	Emergency contraception	Number
11	Implants	Number
12	Intrauterine contraceptive device (IUD, IUCD)2	Number
13	Standard day method (Natural Method) using cycle beads	Number
14	How many staff are able to prepare monthly FP report without supervision?	Number

Thank the respondent for his/her time



Appendix II: Participants Information Sheet

Participants Information Sheet

Title of Study: Assessment of Health Facility Readiness for Family Planning Services in the Sagnarigu Municipality in the Northern Region of Ghana

i. **Introduction:**

Principal investigator: Welbeck Kwesi Akplu

Title of investigator: Mr

Institution of study: University of Ghana School of Public Health

Place of work: Northern Regional Health Directorate

Address: Regional Health Directorate, P.O. Box 99, Tamale – Northern Region.

Email: wkakplu@st.edu.gh / akplubeck@gmail.com

Telephone: 0243260830 / 0200311531

- i. **Background and Purpose of research:** Assessment of Health Facility Readiness for Family Planning Services in Sagnarigu Municipality In The Northern Region of Ghana. These factors are categorized into four main groups. These include management factors, consulting room, supplies factors and Human Resource factors.
- ii. **Nature of research:** it is a cross-sectional study to explore for possible effects any of the factors may have on the outcome variables, which include family planning acceptors and male involvement in family planning. It will also give description of all factors considered in the study.
- iii. **Participants involvement:** The prospective respondents shall include Public Health Nurses, Midwives and Community Health Nurses working in Antenatal, Delivery and Postnatal and family planning Units clinics. This is expected elicit accurate information on their perception and knowledge, as well as skills and experiences regarding family planning services in their catchment area.
- **Duration /what is involved:** participants will be required to use their android phones to complete the online survey; which may also require use of data bundle to log on and call credit for reaching the researcher for further clarifications, if necessary. The entire completion may take about 20 minutes with stable internet connectivity.

- **Potential Risks:** there will be minimal risk to participants of the study, as the issues they will be responding to may not border on their emotions and psychology. Those in remote areas with unstable internet availability may need to move/walk out of their comfort areas to access a stable internet connectivity that will facilitate completion of the form.
- **Benefits:** there may not be any direct benefit to the participants about the study. The scientific benefit of the study may include addition to the stock of knowledge about family planning. Stakeholders such as policy makers; Regional and District Health Management Teams; as well as other partners with interest in family planning will be informed about the strengths and weaknesses in the health system relating to provision of family planning services in the Sagnarigu Municipality. This may facilitate introduction of new or vary existing interventions about family planning in the Sagnarigu Municipality, based on the outcomes of the study.
- **Costs:** there may not be any direct cost associated with responding to the survey.
- **Confidentiality:** their responses shall be autonomous and no personal identifiers shall be collected. Responses shall not be shared with 3rd parties to the study.
- **Voluntary participation/withdrawal:** Participation shall be voluntary and participants have the right to decline to participate and also withdraw from the study at any time without penalty and without having to give any reasons.
- **Outcome and Feedback:** appropriate forum will be created for sharing feedback in the form of outcome/findings about the study.
- **Funding information:** funding/sponsorship is being sought for the study. The PI shall fully or partially sponsor the research, based on funding received.
- **Sharing of participants Information/Data:** data for the study shall be owned by the principal investigator and possibly shared with Co-PI, where necessary.
- **Provision of Information and Consent for participants**

Consent forms shall be provided in the electronic form. This form shall precede questions on the survey. Participants shall therefore sign the consent form by approving it before proceeding to complete the online survey. Where pictures are needed, participants will be required to approve of it before taking them.

Who to Contact for Further Clarification/Questions:

For issues related to the research, please contact:

1. **Principal investigator:** Welbeck Kwesi Akplu

Institution of study: University of Ghana School of Public Health

Email: wkakplu@st.edu.gh / akplubeck@gmail.com

Telephone: 0243260830 / 0200311531

2. **Co-PI (Supervisor):** Dr. Harriet Affran Bonful

Institution: University of Ghana School of Public Health, P.O. Box LG 13, Legon

Phone Number: 0244271821

Email: habonful@ug.edu.gh / haefua@gmail.com

For Ethical issues **only** concerning this research, please contact:

3. **Ghana Health Service**

Ethics Review Committee Administrator: Nana Abena Apatu

Phone number: 0503539896

Email: ethics.research@ghsmaail.org



Appendix III: Consent Form

STUDY TITLE: ASSESSMENT OF FACILITY READINESS FOR FAMILY PLANNING SERVICES IN SAGANARIGU MUNICIPALITY IN THE NORTHERN REGION OF GHANA

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the Participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (English Language). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name of Participant.....

Participants' SignatureOR Thumb Print.....

Date:.....

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's name.....

Signature

Date.....

Appendix IV: GHS ERC Approval Letter

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted



My Ref. GHS/RDD/ERC/Admin/App/23/092
Your Ref. No.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Email: ethics_research@ghs.gov.gh
6th February, 2023

Welbeck Kwesi Akplu
University of Ghana
School of Public Health
Legon, Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC: 030/12/22
Study Title	Assessment of Health Facility Readiness for Planning Services in the Northern Region of Ghana
Approval Date	6 th February, 2023
Expiry Date	5 th February, 2024
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

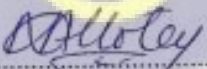
- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol


 SIGNED.....
 Dr. Naa-Korkor Alletrey
 (Ag. Head, Ethics & Research Management Department)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

