THE FACTORS INFLUENCING ACCESS AND UTILIZATION OF SEXUAL REPRODUCTIVE HEALTH AND RIGHTS SERVICES AMONG ADOLESCENTS IN THE UPPER WEST REGION OF GHANA

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The factors influencing access to sexual reproductive health and rights services among adolescents in the Upper West Region of Ghana

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

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Table of contents

List of Tables

List of Figures

ABSTRACT

Background: Utilization of reproductive health services is a significant factor in preventing adolescents from different sexual and reproductive health and rights (SRHR) related problems. Despite numerous governmental efforts, the problem of access and utilization of SRHR services among adolescents in Upper West Region (UWR) in Ghana has not been fully addressed.

Objective: This study sought to analyze the factors that influence assess and utilization of SRHR services among adolescents in the UWR and to identify evidence-based interventions that address these barriers.

Methodology: This study is a literature review and a desk study that used the Anderson's framework of health seeking behavior for detailed analysis.

Results: Education, knowledge of SRHR services and socio-cultural practices such as child marriage were the main predisposing factors that influence access and utilization of SRHR services among adolescents. Among the enabling factors, availability of health services, accessibility, affordability and attitude of health staff influenced the utilization of adolescent SRHR services. The perceived needs for SRHR also influence service utilization. Proposed evidence-based interventions to address the barriers to SRHR services discussed included the MEMA kwa Vijana and "For a Better Tomorrow" (Kesho iliyo njeme) Programmes.

Conclusion: Predisposing, enabling and need factors of the Anderson's framework were prominent in influencing the access and utilization of adolescent SRH services in the UWR of Ghana.

Recommendations: A multisectoral intervention such as the MEMA kwa Vijana, that addresses the interrelation of these factors should be adopted and implemented by the GHS.

Keywords: Access, Utilization, Adolescent, teenage pregnancy , Reproductive Health Services

Word Count: 13045

LIST OF ABREVIATIONS

ATR----------African Traditional Religion

AIDS----------Acquired Immune Deficiency Syndrome

CM---------- Child Marriage

CHPS----------Community -Based Health Planning and Services

FGD----------Focus Group Discussion

FGM----------Female Genital Mutilation

GDHS----------Ghana Demography and Health Survey

GHS----------Ghana Health Service

GLSS----------Ghana Living Standard Survey

GSS----------Ghana Statistical Service

HIV----------Human Immunodeficiency Virus

ICPD----------International Conference on Population and Development

KII---------- Key Informant Interview

LMIC's----------Lower Middle-Income Countries

MMR----------Maternal Mortality Ratio

MDG----------Millennium Development Goals

MOH----------Ministry of Health

NHIS----------National Health Insurance Scheme

SDGs----------Sustainable Development Goals

UWR----------Upper West Region

VU---------- Vrije Universiteit

WHO---------- World Health Organization

GLOSSARY

Family planning: The process and methods by which in individuals are educated to make informed choice to the number of children to have and when to have them (1).

Contraceptives: The practice of using drugs or devices in order to avoid sexual transmitted infections and unwanted pregnancies (1).

Female Genital Mutilation: The practice of cutting part or whole of a female external genitalia for cultural reasons (2).

Child marriage: This is the practice of exposing boys and girls into marriage before attaining the age of 18 years (3).

Maternal mortality: "The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes" (4).

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INTRODUCTION

Sexual Reproductive Health Rights and Services among adolescents has in recent time been acknowledged to be a global issue demanding the concern of public health workers across the globe. This is due to the underestimated health effects attached to it, and therefore has contributed to the increasing numbers of sexual related morbidities and mortalities around the world. Adolescence constitute a period in life where one undergoes mental, physical, physiological, emotional as well as social development which therefore makes him/her susceptible to various forms of reproductive health related issues like sexual transmitted infections (STIs), teenage pregnancies, sexual violence, HIV/AIDS and even death.

For the attainment and realization of the Universal Health Coverage agenda by world Health Organization (WHO), is imperative for every person regardless of age and origin to be able to seek for healthcare without difficulties in terms of accessibility, utilization and financial burden.

Access and utilization of SRHR services among adolescent boys and girls can contribute significantly to their overall health outcome and wellbeing, however majority are faced with challenges such as inability to afford for services being provided, difficulty in accessing the location of required healthcare facility, stigmatization, cultural and religious believes as well as the level of trust and confidence given to these service providers. As a psychiatric nurse by profession with six 6 years of working in the psychiatric hospital in Ghana and also a native from the Upper West Region, I have encountered many young boys and girls with the sexual and reproductive health challenges especially in their access and utilization of appropriate healthcare services .

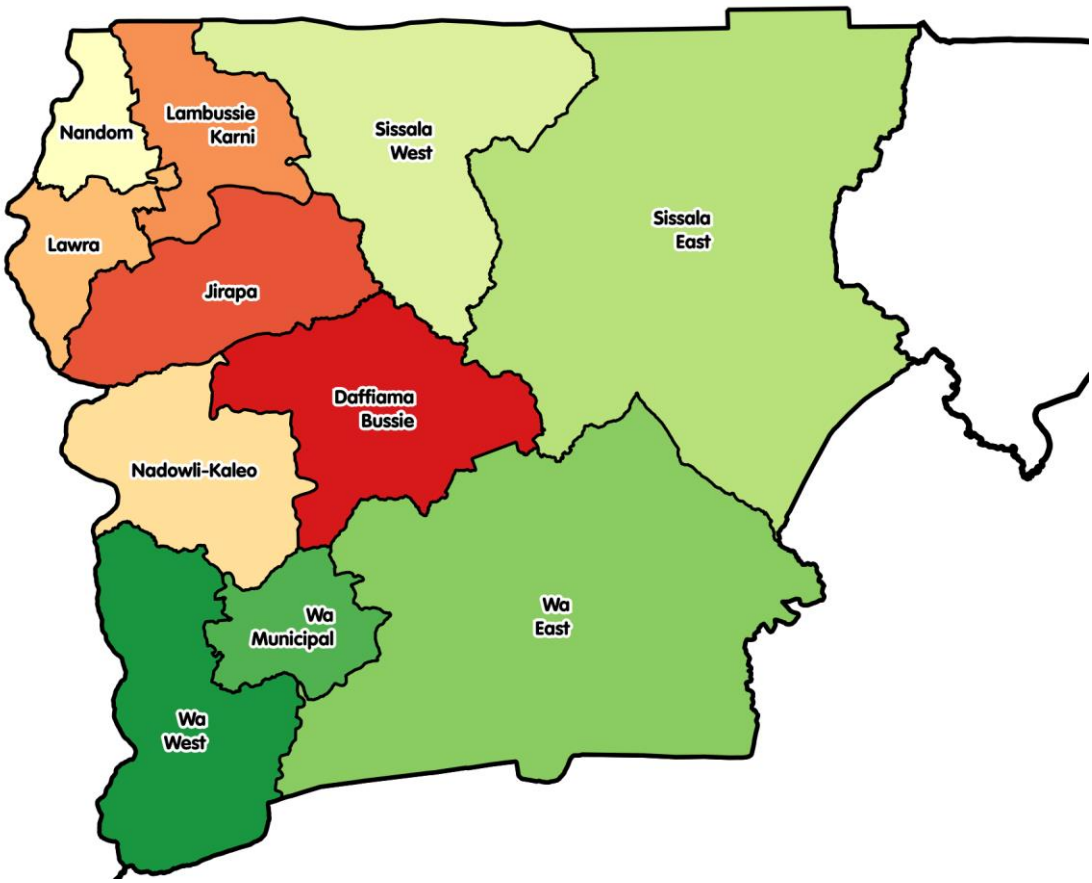
This has challenged me in this new field of study, but also to embark on this project with the aid of Andersen behavioral model for health service utilization as a guide to explore the aforementioned factors so as to understand the individual , contextual and health service -related factors influencing adolescents access and utilization of SRHR services in the Upper West Region of Ghana with an overall aim of presenting recommendations to Ghana Health service and Ministry of Health of Ghana to improve the access and utilization of SRHR services in the Region.

CHAPTER ONE : BACKGROUND INFORMATION OF THE UPPER WEST REGION OF GHANA

1.1 Geography and demographic characteristics

The Upper West Region (UWR), situated in the north-western corner of Ghana was created out of the region used to be known as the Upper Region of Ghana in the year 1983, geographically it has a land area of 18,476 square kilometers which makes up to 12.7 % of entire country land area. It shares boundaries to the south by the Northern Region of Ghana, to both north and west of its boarders with Burkina Faso then to its west by the Upper East Region from which it was divided from. The region has a population of 702,110 from the current population and housing census with adolescent's population representing 24.1% (169,208), this category age group was recorded as the highest of population in the region. The regional capital known as Wa and the region is govern administratively through the coordination of various district assemblies made up of one municipal assembly together with 10 administrative district assemblies covering 1,145 communities across the whole region (5,6).

Figure 1. Study catchment area (map of UWR of Ghana)



Source: The Ghana Heath Service 2016 Regional Heath Administration Annual Report for UWR (7)

1.2 Economy of UWR

UWR from its inception has been engaged in agriculture as a major economic source of livelihood which ranges from fishing, rearing and crops like such as millet and yam. About 80% of farmers produce for home consumption and little for trading as business (8). It is the smallest region and still lacking behind in terms of development alongside poverty reduction among its people, the region between 2016-17 encountered deplorable poverty conditions and is recorded to have the highest poverty rate of (70.7%) indicating the poorest region in the country (9).

1.3 Religion and culture

The region is made up of 3 major and 3 minor ethnic divisions and these include the Waala, the Dagaaba and Sisaala as the major tribes with the Lobis, the chakalis as well as the Birifolas as the minority tribes. Patrilineal system of inheritance is practice among the Waala, Sisaala , dagaatis and Chakali whilst the Lobi and Birifola practices that of matrilineal system. Religious and cultural practices are deeply rooted in the region and there are three commonly practiced religion believers which are the Islamic religion, the Christianity and the African Traditional religion where they belief in supreme creatures, spirits and act accordingly to their instructions (1).

1.4 Education

The region is also faced with educational challenges with regards to the literacy rate. It is documented that about 60.8% of males and 36.8% of females respectively can read and write, however, comparing this to the overall country educational rate of 81.2% for men and 67.1% for women clearly shows how more attention should to be given to education in order to improve development and health related issues of the region. Unfortunately, percentage of women with no level of education of any kind stands at 48.7% with only 3.6% of females finishing high school level. For males who did not get the chance of schooling represents 30.7% leaving only 11.5 fortunate males to benefit up to high school level (10).

1.5 Health and Adolescent RHS situation in UWR

According to the 2016 regional health annual report ,there are a sum total of three hundred and thirty three 333 health facilities, this is made up of eleven 11 hospitals including private and CHAG facilities, with only four 4 polyclinics, the remaining facilities are seventy health centers, five 5 maternity homes and two hundred and twenty seven 227 CHPS zones.(7) The region (UWR) is not different in terms of its disease burden as far as the other regions of the country is concern, reports stated in the 2013 Global burden of Diseases, that HIV/AIDS, birth related complications ,malaria as well as infections of the lower respiratory tract are the notable and major causes of morbidities and mortalities in the country with life expectancy of females standing at 66.9 years and that of males being 63.0 years (11).

The prevalence of FGM has gain a nationwide reduction among the adolescent group, however observations made by civil society groups has written a reports of new cases of FGM taking place in

the Upper West Region of Ghana making the region leading with the highest FGM prevalence rate of 40.1% . Though this practice is illegal according to the laws of the country it is a cultural belief uphold by the religious leaders and local traditional rulers who consider this inhumane treatment to be the norms and values performed for ensuring premarital virginity, marital fidelity and contribute to the reduction of a woman's sexual desire which sort to restrain her from engaging in sexual acts out marriage (12). More to the point, reports from the 2016 regional annual report of Ghana Health Service shows there is also lack of family planning services and educative programs on sexuality for teenagers which has a direct effect in the slow but increasing number of teenage pregnancies, child marriages, sexual transmitted infections(STIs) and mortalities in the region as figures shows increasing trend from 2011 number of teenage pregnancies as 2732 up to 2016 figures of 3473 in Table 1 below.

Table 1 Maternal health indicators of adolescents in UWR

INDICATORS	2011	2012	2013	2014	2015	2016
Number of institutional maternal deaths 10-19	2	2	5	7	2	5
Number of teenage pregnancies 10-19 years	2732	2868	3171	3077	3089	3473

Source: Regional Health Administration Annual Report (3)

1.6 The healthcare system in Ghana

The MOH is responsible and accountable to the management of the health industry in the country, it is the regulatory and policy making institution for the overall health sector in the country. Policies and regulations made at the ministry level are channeled for implementation through the Ghana Health Service of Ghana which stands as an autonomous Executive agency with the mandate of providing accessible, equitable and affordable health care to the entire population of Ghana, administratively, the operations and management of the health sector under GHS is decentralized across the country into basically three levels namely the district, regional and national level (13). However, there also exist non-governmental organizations, private, and faith-based facilities that also provide healthcare services to the general population and this therefore sort to augment these existing public healthcare facilities to meeting the demands of the population. In terms of financing, since 2004, the cash and carry or out of pocket mode of payment system was changed with national health insurance scheme in the Public facilities, this therefore allow the public facilities to mainly depend on government annual budgetary allocation for provision of healthcare (14).

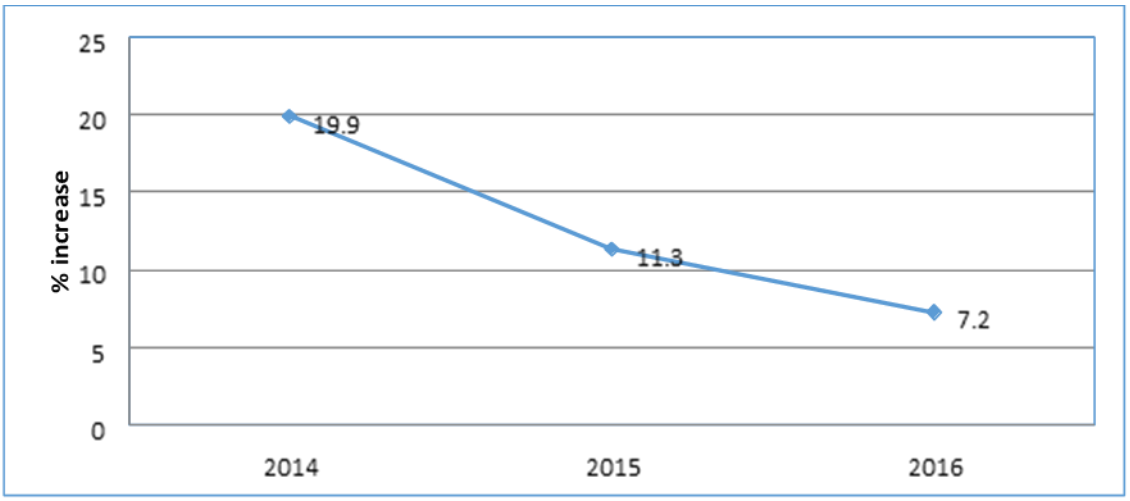
1.6.1 Human resource for health in Ghana

There has been a gradual declined in the figures of all categories of health workforce in the country which became much conspicuous from 2014 to 2016 as shown in (Figure 2) below,

this worrying trend is however mostly felt in the northern part of the country which is predominantly rural area (15). The UWR as at 2015 was the hardest hit region with regards to shortage of staffing as figures of doctor to population ratio stood at 1 medical doctor to 30.601 population compared to the entire countries doctor ratio of 1 doctor to 8,934 Ghanaians. Available data shows similar trend in midwives, with 1 midwife to 838 women of reproductive age, followed by 1 nurse to 506 population (16).

Figure 2: Ghana Health workforce from 2014-2016

Corresponding increase in total health workforce(%) from December 2014-DEC 2016



CHAPTER TWO: PROBLEM STATEMENT, JUSTIFICATION, OBJECTIVES AND METHODOLOGY

2.1 Problem statement

Adolescents are people between the ages of 10 and 19 years.(17) Adolescents constitute 20% of the world's population, with about 85% of them living in LMICs.(17) The period of adolescence involves a substantial physiological, psychological, and social changes. This exposes adolescents to a greater chance of sexual and reproductive health and rights (SRHR) related problems.(18) However, for the majority of young people, the period of adolescence also comes along with new exposures to human rights abuses regarding sexuality, marriage and childbearing.(19) Many adolescent girls around the world are for instance compelled into unwanted sex or marriage, which exposes them to unplanned and unwanted pregnancies, unsafe abortions and dangerous childbirth as well as sexually transmitted infections (STIs).(19,20) Adolescent boys are also at risk, and both are unduly affected by HIV.(19) In 2016, approximately 2.1 million adolescents were living with HIV with most of them living in the African Region.

The International Conference on Population and Development (ICPD) Program of Action broadly defines reproductive health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes."(21,22) Utilization of SRHR services is key in the prevention of adolescents from various SRHR related problems. In the sub-Saharan regions of Africa, utilization of SRHR services among majority of adolescents remains a challenge. This is as a result of barriers to healthcare utilization such as lack of knowledge about service availability, inaccessibility of services due to lack of privacy, confidentiality, misconceptions, cost of services, equipment and negative attitudes from service providers.(20,23–31) Initiation ceremonies, child marriages and gender inequalities have also been documented as social-cultural barriers to SRHR.(28)

Ghana is not an exception to the aforementioned issues despite a number of interventions and policies to ameliorate problems of adolescents' SRHR in the country. Evidence from the Ghana Demographic Health Survey (GDHS) 2014 shows that 14% of women who had begun childbearing in Ghana are teenagers, with a higher proportion in rural settings (17%).(10) The 2016 Annual Report of Ghana Health Service also shows 11.8% adolescent pregnancies and 16.4% rate of abortions adolescents.(32) The proportion of adolescents having access to family planning services was also reported to be 13.5%.(32) Access to adolescent SRH services in Ghana is hindered by socio-cultural factors such as sexuality related taboos, especially in regions with predominant rural settings such as the UWR.(33,34) The UWR, is the poorest and smallest among the 10 regions of Ghana, is also faced with SRHR service challenges such as continuous child marriage, maternal mortality, female genital mutilation and STI's. Child marriage affects 36.3% and 2.3% of young girls and boys (<18years) in the region respectively.(35) The UWR is also reported to be the region with the highest practice

of FGM at a rate of (41.1%), which this correlates inversely with the economic status and educational attainment in the region.(35) A previous report by the coordinator of Adolescent Sexual Reproductive Health (ASRH) for the UWR, has also stated that health facilities in the UWR were unfriendly to adolescents and as a result, adolescents who visit these facilities are not able to reveal their SRH challenges in detail.(36)

Over the years, the Government of Ghana has put in efforts to ensure access and utilization of SRH services among adolescents in the country. Ghana was, for instance, part of committed countries who admitted to the consequences of lack of adolescent SRH services to the development of their countries pledged in the ICPD conference held in Cairo Egypt in 1994 to put interventions in place.(37) Ghana also adopted the 2003 Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa.(38) Other significant efforts include the Ghana Shared Growth Development Agenda (2010-2013), which recognizes the critical contribution of expanding coverage, availability and accessibility of reproductive health and family planning services to adolescents and youth as a matter of priority. However, despite these efforts, the problem of access and utilization of SRH services among adolescents has not been fully addressed.

2.2 Justification

Previous evidence suggests that there is low level of health service utilization among adolescents in Ghana and this is influenced by socio-cultural and health system related factors.(34) With the positive response put up by government and assisted by private institutions to addressing adolescent reproductive health problems, it is clear there is a knowledge gap in relation to the understanding and acceptance of adolescent and sexual reproductive health, rights and services. In the UWR region of Ghana, not much is known about the factors influencing access and utilization of SRH services. The rationale behind this study is therefore to review evidence of factors influencing access and utilization of SRH services by adolescents in the UWR of Ghana. This is eminent for the designing of appropriate strategies to minimize the undesirable effects of choices made by adolescents and to improve their utilization of SRHR services.

2.3 Main objective

The overall aim is to assess and review factors influencing the access and utilization of SRHR services among adolescents in the UWR to help formulate policy recommendations to government and other stakeholders to improve reproductive health services utilization among adolescents in the region.

2.3.1 Specific objectives

1. To describe the needs of adolescents with regards to SRH services in UWR of Ghana

2. To identify the socio-cultural, socio-economic and health system related factors influencing access and utilization of SRHR services among adolescents in UWR of Ghana

3. To explore evidence -based SRHR interventions from other countries to promote access and utilization in the UWR of Ghana

4. To make recommendations on outcome of the study to Ghana Health Service, Ministry of Health and relevant stake holders.

2.4 Methodology

This study is based on literature review supported by desk study.

2.4.1 Search strategy

Literature were searched through a range of databases including Google Scholar, PubMed and the database of the Free University Amsterdam library (VU Amsterdam). Specific reproductive health related databases such as the WHO Reproductive Health Library and the POPLINE were also searched. Substantial information from health policies, factsheets and health reports has been retrieved from Ghana statistical service, Ghana Health Service and Ministry of Health of Ghana (MOH), such as the Ghana Demographic and health survey (GDHS) (2014), Maternal health survey 2017 and policy guidelines and report from Ghana Health Service and other international recognized websites of Guttmacher institute, UNICEF, WHO, UNFPA,USAID.

To make a logical analysis, peer reviewed journal, published scientific articles together with grey literature has been thoroughly searched. English language was conceded based on that fact that the official language used in Ghana is English. Articles the were selected covered 1994 to date. After a positive response put up by many countries at the international conference on population and development held in Egypt in 1994, quite a number of relevant writings have been published to create awareness and help push the agenda across the globe. Despite the period being quite old, significant analysis of issues cannot be established without making reference to it.

Literature regarding adolescent SRH, right and services on access and utilization however has not been carried out much in the UWR of Ghana hence studies carried on similar topics within regions close to UWR has been factored in because the three regions of the north share some common features in terms of social, economic and geographical existence. They included the Northern region, Upper West and Upper East region of Ghana data on these regions therefore can be extrapolated and inferred to the UWR.

Key words that has been used in searching for relevant literature both peer reviewed and Grey literature. Key words included SRHR, Family planning, contraceptives, access, utilization and adolescents has been illustrated in Table 2 below.

Table 2: Strategy used in searching

STUDY OBJECTIVES	DATABASE SEARCHED	KEYWORDS
1. The needs of adolescents with regards to SRH services in UWR of Ghana	Google scholar PubMed VU library Guttmacher institute POPLINE WHO reproductive health library Ghana Demographic Health Survey Health Information systems	Sexual and reproductive health, Coverage, Trends, Access, Utilization Ghana Upper West Region
2. Socio-cultural, socio-economic and health system related factors influencing access and utilization of SRHR services among adolescents	Google scholar PubMed VU library Guttmacher institute POPLINE WHO reproductive health library	Socio-cultural beliefs, Religion, Ethnicity, rural urban variations, Health insurance, employment, literacy rates, social network ,health literacy ,utilization of reproductive health services, Ghana, Upper west region Availability of health services, Cost of service, Personal waiting time, Transportation, Programs , Policies, Adolescents health
3. explore evidence-informed interventions for adolescent SRHS	PubMed Guttmacher Google scholar	Adolescent SRHR Interventions Empowerment programes

2.5 Conceptual Model

This study is guided by a framework for health service utilization adopted from the Anderson's Behavioral Model of Health Service Utilization.(39) The objective of using this framework is to guide in analyzing and demonstrating factors which promote or prevent adolescent to the access and utilization of SRHR services outcomes in the UWR of Ghana.

2.5.1 Andersen's framework of health seeking behavior

The model idea was formulated by Ronald M. Andersen in 1968 and has under gone modifications with current model developed in 1995 which describes how predisposing factors, enabling factors, needs factors as well as the environmental and individual health practices interact leading to either a positive or negative health outcome.

- **Predisposing factors**: These are factors surrounding a person's way of life and is deeply embedded in the health seekers social structures prior to getting ill or making use of services. They include gender, age, cultural values, social networks as well as knowledge

- **Enabling factors:** Enabling factors: These are factors that may prevent delays and promotes health seekers access and utilization of services. They include family support, access to insurance, financial standing, established service centers with personnel who deliver quality care and ability to use personal time in waiting

- **Needs factors**: This s based on how an individual perceive the importance on his or her state of health and therefore take a decision on whether to seek for medical care or not, it may also come from the medical side where a person is assess and evaluated to determine the required treatment needed.

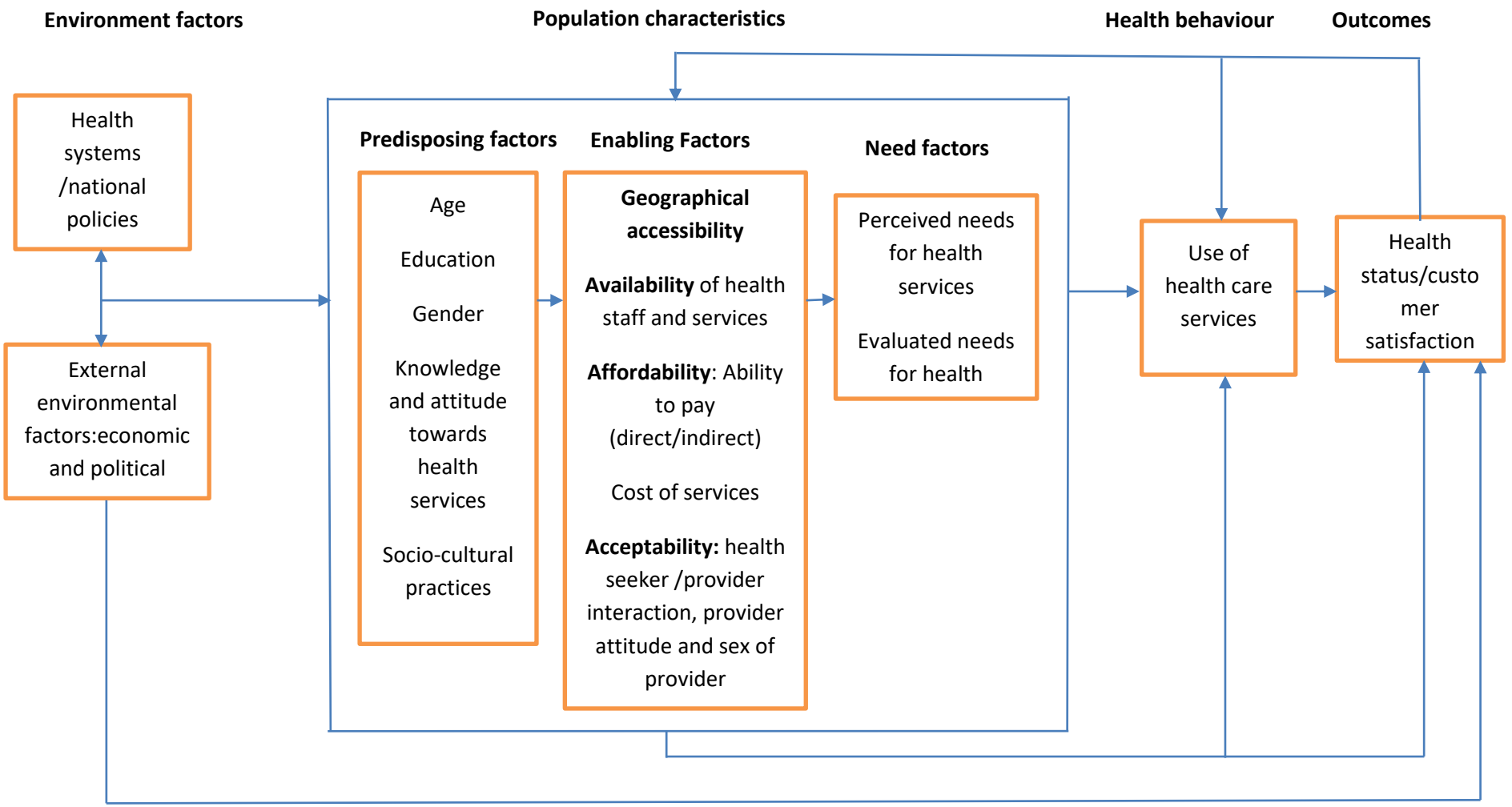


Figure 3: Modified framework adopted from Andersen framework.(39)

2.5.1.1 General overview of concept and utilization

The concept of access and utilization has been applied throughout in the study, but the suitable explanation is chosen for reason of understanding the context and work.

Access**:** according to Donabedian, the term access refers to the tendency to get between need for health care service alongside the actual care being received based on the interaction of factors such as affordability, nearness of service location as well as religious and cultural norms (40). According to Greenlick, access is the ability to receive healthcare services when in need at the required time and with the right service providers (41). Another definition by Penchansky et al is "a set of more specific dimensions describing the fit between the patient and the healthcare system" (42). Included in the dimensions are acceptability, affordability, availability and accessibility (42). From the demand side, access by health seekers usually regarded as being able to receive treatment without financial constrains or at times with no service charges whereas the supply side or service providers regard it as being able to give services that meet client and patient satisfaction within the healthcare system (43). Lastly, Anderson refers to access as the ability to benefit from health services which includes those factors that may promote or hinder the processes, groups of factors such as sociocultural, environmental and socio-economic (39).

Utilization**:** Generally, utilization of health of healthcare is the proportion of persons benefiting from specific healthcare services in a defined time period and can be used to directly determine access of healthcare by individuals (44). Since Anderson framework is being used, the author has decided to use the definition by Anderson together with the aforementioned utilization definition in identifying factors influencing SRHR services among adolescents in the UWR of Ghana.

CHAPTER THREE: STUDY FINDINGS/RESULTS

This chapter will analyse factors that influence access and utilization of SRHR services among adolescents in the UWR of Ghana. The factors will be analyzed according to the Anderson's framework of health seeking behavior: predisposing factors, enabling factors, need factor and the environmental factors including health systems and national policies.

3.1 Factors influencing access and utilization of SRHR services among adolescents in the UWR of Ghana

Table 1 provides a summary of the factors influencing access and utilization of adolescent SRHR services. Predisposing factors, enabling including health facility related factors and need factors are described as reported by various studies. Detail description of the various factors are provided below:

3.1.1 Environmental factors

Health systems and policies

Over the years, the government of Ghana and other stakeholders has put in efforts to ensure access to SRHR by adolescents. This include the inclusion of free maternal and adolescent healthcare services under the National Health Insurance Scheme (45). Since 1980, a number of initiatives have been undertaken in Ghana resulting in the launching of the National Adolescent Health and Development Programme (ADHD) in 2001. The aim was to ensure the provision of a multi-sectoral educational support to all young persons living in Ghana (41). The programme was also to support young people with information that will help them adopt a healthy lifestyle physically, psychologically and socially (41). Following this, a 7-year strategic plan for adolescent health and development (2009-2015) was developed to support the roll out of appropriate SRHR programmes for young people including comprehensive health services complemented by self-care.

Further in support of adolescent health in Ghana, the UNICEF, WHO, UKAID, UNFPA, the Palladium Group and partners supported the Ghana Health Service to develop a service policy and strategy for Ghana's ADHD Programme, with the aim of providing a policy framework to coordinate health provision of health service and other interventions targeted at young people. The new Adolescent Health Service Policy and Strategy (2016-2020) takes into consideration the new Global Strategy for Women's, Children's and Adolescents' Health (2015-2030), which was aligned to the Sustainable Development Goals (63). It also take into account the Global Accelerated Action for the Health of Adolescents (AA-HA!): implementation guidance of 2016 (64). In Ghana, the Adolescent Health and Development (ADHD) secretariat has developed guidelines for adolescent friendly health facilities (65). A wide range of services and interventions including family planning, comprehensive abortion care, counselling, HIV/AIDS related services are provided. According to the 2013 reproductive health report (66), there were a total of 291 adolescent health corners in public (276) and private (15) health facilities in Ghana. However, according to the report, most of

these facilities were not properly functioning and did not have the requisite resources (65). The actual number of facilities functioning in Ghana and the UWR was however not reported.

Economic and political factors

Poverty and economic marginalization play important role in SRHR access, utilization and outcomes in SSA (46). Adolescents would involve in transactional sex for cash and items if they do not have a sound economic support (47). Many adolescents in limited resource settings are however not economically empowered to cater for the cost associated with SRHR services and this could be exacerbated in rural limited resource settings such as the UWR of Ghana. According to the 2014 GDHS report, the UWR had the highest Inequality in wealth (Gini coefficients of 0.33) and about 60.2% of the population were in the lowest wealth quintile and only 3% in the highest quintile (10). This means that many young people in this region may not be economically empowered to access SRHR services

In the study by Nyarko (48), utilization of contraceptives was higher among adolescents who were rich (17.9%) as compared to those who were poor (15.4%), although this was not statistically significant. The study also reported a significantly high proportion of contraceptive use among adolescent who were working (28.9%) as compared to those not working (12.8%); OR, 95% CI= 2.99, 2.01–4.51 (48). Adolescents who have employment are more likely to earn some income and therefore could afford the cost associated with accessing SRHR services. A study conducted in other part of SSA also reported found that, adolescent girls with financial support from their parents had a better chance of accessing SRHR and vice versa (49) (β= 0.309; p=0.000). The teenagers with a higher level of poverty were also found to access reproductive health information at a lower rate (β= -0.350; p=0.000) (49).

3.1.2 The predisposing factors associated with access and utilization SRHR services among adolescents

In this subchapter the influence of age, education, gender, knowledge and attitude towards health services, and socio-cultural practices on the access and utilization of adolescents' SRHR services are analyzed.

Age

Older female adolescents (15-19years), have been found to be more likely to practice contraceptive use, according to a study based on the GDHS 2008 (48). The use of contraceptives was 31.4% among adolescents 18-19years as compared to 9.2% among the 15-17 age group. This association was suggested to be related to higher level of maturity, enlightenment and the importance of contraceptive use among older adolescents who are more likely to get married. The 2014 GDHS report also showed an increase in the Knowledge of SRHR services with increasing age of young people Knowledge on the source of condom

was 79.5%, 83.8%, 90.1% and 93.8% for young men aged 15-17 years, 15-19years, 18-19years and 20-24years respectively and for young women 58.0%, 64.1%, 74.3% and 79.1% among age groups 15-17 years, 15-19ears, 18-19years and 20-24years respectively (10). In a study conducted among adolescents in other part of SSA, rural Asgede-Tsimbla district in Northern Ethiopia, female adolescents aged 16-20year were reported to have an increased propensity of using SRHR services (AOR = 1.85, 95%CI: 1.17–2.92), as compared to those 10-15years (50). This finding could be applicable to the UWR of Ghana, which is also a rural district having 13.1% a and 11.2% of adolescents aged 11-15year and 16-20year respectively (35). This indicates that older adolescents in the UWR are more likely to use SRHR services compared to younger adolescents.

Education

It is generally accepted that education enables people to change their ways of reasoning and make positive life choices by asking critical questions. Healthy information can only be gain through education which enhances the self-esteem of women but also by making decisions themselves (51). Educational status has been reported as factor that influence the use of reproductive health services in Ghana (52,53) and similar settings in SSA (49,50). The UWR has the highest percentage of households people who had never been to school (female, 53.3%; male 41.3%). There is also a difference in boy and girl child education in the UWR of which 44% and 39% of girls and boys respectively are unable to complete high school (10). Young women in UWR also had the second highest median age (8.0 years) for enrolment in primary school (10). The 2014 GDHS report shows an increasing proportion of comprehensive knowledge SRHR with increasing level of education among both male and female adolescents (10). An analysis of survey data in Ghana also found high use of contraceptives among educated adolescents compared to the uneducated; 3.5%, 19% and 19.9% used contraceptives among adolescents who had no education, primary and secondary education respectively (48). Adolescents who had a secondary level education are more likely to use contraceptives than those with primary or no education. As compared to adolescents with no formal education, adolescents with primary education (OR,95% CI=7.4, 1.9-2.7) and secondary or higher education (OR, 95% CI=11.5, 2.8-3.1) were more likely to use contraceptives (48). In a review of Ghana demographic survey data, Marrone et al.,(53) found a lower proportion of use of modern contraceptives among adolescent females aged 15-19 years without formal education (15%) as compared to those in the same age category but with secondary education (53%).

Gender

Gender might also influence the access and utilization of SRHR services in the UWR of Ghana as a result of differences in SRHR issues and related attitudes between males and females. For instance, the rate of child marriage in the UWR is 36.3% among girls as compared to only 2.3% among boys (35). Despite these differences, the 2014 GDHS report shows an increasing proportion of comprehensive knowledge SRHR with increasing level of education among both male and female adolescents (10).

Differences in sexually related attitudes between male and female adolescents have also been reported. In a study to explore sexual experiences among adolescents in Ghana, young women had a significantly higher chance to be sexually experienced as compared to young men (56% vs. 48%); ($p<0.05$) (54). In that study, female adolescents were more higher odds of engaging in sex (OR, 95% CI=1.96, 1.32–2.91), although they were less likely to have more than one sexual partner (OR, 95% CI=0.13, 0.05–0.34). A nationally-representative survey in Ghana, however found no significant differences in adolescents expectations and use of public and private health facilities for SRHR services. In that study, 32.1% of adolescent males and 32% of females utilized public health facilities for adolescent SRHR services whereas 3.6% and 2.4% of adolescent females and males utilized private facilities respectively (27).

Knowledge and attitudes towards SRHR services

The importance of knowledge in the utilization of healthcare has been widely reported. This also extends to the access and use of SRHR services for decision making among adolescents (55). In 2017, a qualitative study assessed the SRH knowledge, choices and factors affecting reproductive health choices among adolescents the West Gonja District in Northern region, Ghana (34). Because this was a qualitative study, the proportion of adolescents with low or high knowledge could not be quantified. Findings of the study however revealed little understanding of adolescents SRH services and choices among both in-school and out-of-school adolescents. The study also shows low level of knowledge and awareness regarding comprehensive abortion care among the adolescents despite the implementation of comprehensive abortion care in all health facilities in Ghana. This qualitative evidence helps to gain insight into the actual experiences and perceptions of adolescents which could not be observed in a quantitative study. For instance, in a focus group discussions (FGDs) an adolescent had this to say:

> *"Reproductive health services are the service that teach us how to protect ourselves from getting pregnant through the use of condom during sex…also use contraceptives though it is sometimes difficult for us to use contraceptive"(female, FGD, in-school)*

In a household-based surveys of 12–19-year-old sexually active female and male adolescents conducted in Ghana, Burkina Faso and Malawi, majority of them had knowledge of the sources of contraceptives (female 99.2%, male 99.5%)or where to get treatment for STIs (female 96.1%, male 98.8%) (56). The study, which included 4,430 adolescents in Ghana, 0.8% out of 274 and 0.5% out of 131 adolescent females and males respectively did not have knowledge of any contraceptive methods. About 6% and 7.5% of the male and female adolescents respectively, also did not know where to go for contraceptives or how to get there. The study further reported that 3.9% adolescent females and 1.2% adolescent males did not know where to go for STI diagnosis and treatment (56). Although this study reported

high level of utilization of some SRHR services, other services such as abortion care, family planning and HIV testing and counselling were not reported.

Utilization of health SRHR services among adolescents is also shaped by their attitudes and perceptions towards SRHR issues. These attitudes reflect their needs, vulnerabilities and choices regarding SRHR and negatively or positively influence their access to and utilization of SRHR services (57). Lack of cooperation and refusal to accept professional advice have been cited as attitude of adolescents that militate against the use of SRHR services among adolescents. In the study by among adolescents and their parents and guardians (58), a health provider disclosed adolescents often do you accept the correction information they offer them about SRHR, but they keep repeating the wrong things taught them by their peers even after being educating about them. Some of the adolescents, for instance leant from their peers that they cannot enjoy sex if they use condoms (58).

In the study of adolescents aged 10–19 years in the West Gonja District of theNorthern region of Ghana (34), some adolescent expressed negative perceptions towards condom use. A male adolescent had this to say in a focus group discussion:

> *"Oh yes, condom is a waste of time and no feelings. Everything in life there is a risk and sex itself is a risk. The risk is there in having sex because most do not use condoms; some too have about two or more girlfriends and always have sex with all of them. Through that you can get any disease or even impregnate a girl that you may not even like to marry or have a child with" (male, FGD, out-of-school).*

The attitudes of parents and guardians and effective SRHR communication between parents and children also helps to shape and to change the attitudes of adolescents from risky sexual behavior towards the practice of safer sex (59). A study conducted to assess parent–child communication about SRHR found that 82.3% of parents had at some point in time discussed SRHR issues with their children (60). The discussion however centered around few topics. The adolescents also disclosed that 78.8% and 53.5% of the mothers and fathers respectively had discussed sexual communication with their them. The lack of communication of SRHR among some parents and their children was due to norms surrounding sexual issues, referring to sex as a preserve for the married. Abstinence was mostly discussed by parents and their children (73.6%) whereas the use of contraceptives were rarely discussed (5.2%). Adolescents were not informed by their parents, the prevention of pregnancy or STIs during sexual intercourse, but rather how to abstain from sex (60). In a study to assess the utilization of SRHR among adolescents, some participants perceived reproductive health services to be for married people, and therefore adolescents are allowed to utilize them to achieve population goals but not set up solely for them (57).

Socio-cultural factors influencing the use of SRHR services

Internationally, evidence suggests that SRHR interventions that focus solely on the motivation and behavior change of the individual are only partially effective (61). Many

adolescents in SSA are barred from the requisite SRHR services due to socio-cultural reasons and their risk behaviors are significantly influenced by socio-cultural factors. In Ghana, adolescents' access to SRHR services influenced by socio-cultural factors such as sexuality related taboos that prevent communication about sex and negative perceptions about family planning, especially in rural settings such as the UWR.(33,34)

In the study by Kumi-Kyereme et al (58) in rural districts and metropolitan district assemblies of Ghana, adult-child community gap due to socio-cultural perceptions was reported as a barrier to adolescent SRHR services. The study which involved health care providers (n=20), teachers (n=16) and parents/adult community leaders (n=24) parents reported feeling uncomfortable talking about sex with their children due to socio-cultural expectations relating to dialogue on SRHR issues.

Some parents in that study opined pointed out:

> *"It is not easy dealing with adolescents. You need to be patient and very tactful especially when it comes to sexual matters. The culture doesn't allow us to talk to children about sex, especially the opposite sex. Also, some of these adolescents are very rude and disrespectful. Hence, it is not easy talking to adolescents outside your family, except those who are friends to your children or those who are your friends' children."—Rural father, 50 years*

> *"For my children, I talk about abstinence and nothing else. For other children, I also add that if they can't abstain, then they should use condoms. I don't like talking about the use of condoms, but once a while I'm forced to because they see and hear of it on television. However, I stress that it is not safe at all, and using it means you will have early sex and will therefore not grow into healthy and responsible adults. —Rural father, 50 years"*

The recent study in the West Gonja district found various socio-cultural perceptions surrounding the use of contraceptives (34). Sexual activities were for instance used as reasons to conform to group norms, for gifts and for expression of love. Some adolescents therefore engaged in premarital and unprotected sex to get money for their upkeep, although they believed it is risky. This was also confirmed by opinion leaders who confirmed that young girls relied on it for upkeep. Despite these practices, the use of contraceptives is not promoted because of the perception that it could lead to infertility among female users and also begetting children for the husband (who takes care of her education) is perceived as a payment for his contribution to her education. An opinion leaders had these to say to explain these socio-cultural perceptions:

> *"As for the contraceptives, the men will not agree because, it is believed that it can cause infertility in future. Men in this community take care of female adolescents to marry and have children with them in future. So, if the girl uses contraceptives and become infertile in future, it will mean the man has invested in vain. It is a serious problem, so some NGO is assisting the girls" (Male Opinion Leader).*

Some adolescents also shied away from the use of condoms because of the perception that condoms inhibit sexual pleasures and therefore was impracticable to use. A female out-of-school adolescent in that study disclosed this:

> *"Yes sometimes when you want to have sex you tell the boy to use condom. Some males agree and use but there are some males who will tell you that if you put a toffee with the wrapper in your mouth do you get the sweetness of the toffee?" (female, FGD, out-of-school).*

The study by Kumi-Kyereme et al (58) in rural districts and metropolitan district assemblies of Ghana found some negative attitude of parents towards adolescents SRHR. According to the study report, some parents showed lack of cooperation in addressing SRHR problems of adolescents. Some parents believed that adolescents would engage in premarital sex if introduced to SRHR issues. In a discussion with parents, some had these to say concerning SRHR issues of adolescents:

> *"It is the use of these contraceptives that is spoiling our children. It is because of the condom and family planning medicines that the children don't fear going into sex". —Rural father, 64 years*

> *"Some of the adolescents will take advantage of the information on contraceptive use and develop the habit of having sex. Many problems will arise as a result of this."—Rural mother, 45 years*

Gender roles and balances, perception of child marriage and the need for girls child education also exist in the UWR of Ghana and could influence utilization of SRHR among adolescents (62). As poverty is the partly a reason, boys are usually given the opportunity to continue schooling whilst the girls are restricted to helping in house activities such as cooking and going to farm with the perception that boys education is of more importance than girls (63). According to Stephens (64), majority of people in the northern sector has a similar perception with regards to the girl child education where the think giving the girl child access to education will make them refuse to perform their gender roles as women, they will become less competent in their social roles and also try to resist to norms of the society. In the study, a professional teacher from the northern part of Ghana had this to say and I quote:

> *"It's a belief among societies in the North of Ghana that a girl should marry as a virgin and so they tend to feel that if you pursue education for too long you will lose your virginity on the way"*

The marriage of a boy or a girl taking place before attaining age 18 is considered to be child marriage. Adolescents who are involved in early child bearing before 18 years of age is attributed to child marriage (65). Child marriages also mostly happen without the interest of the girls and exposes them to birth related complications which affects them psychologically and even death. The constitution of Ghana prohibits child marriage and considers it as an

abuse and violation of the fundamental human rights of girls in the country (66). The rate of adolescent girls involved in child marriage is higher than that of their male counterparts which demonstrate an additional inequality gap. The UWR has the third highest prevalence rate of child marriage in Ghana representing 36.3% for girls entering child marriage and 2.3% of boys entering into marriage (35). Child marriage prevalence in my observation from the region can be as a result of the poverty level and low education among the girls in the UWR. Differences in gender roles and values also influences access and utilization of health services. Young girls are generally unable to access health facilities because they are mostly saddled with domestic services such unless emergencies arise (67). In the UWR, as in most rural settings in Ghana, by culture, is basically domestic. Sending a girl to school was seen as a waste of time, money and energy as the woman's role is to is supposed to have children and be responsible for the home (67). most girls were denied education, leading to high level of illiteracy which affects the utilization of health services among women and girls.

3.1.3 The enabling factors associated with access and utilization of SRHR services among adolescents

In this subchapter the influence of geographical accessibility, availability of health staff and services, affordability (ability to pay for healthcare) and the cost of services on the access and utilization of adolescents' SRHR services will be analyzed.

Geographical accessibility

Accessibility and cost of SRHR services have also been found to hinder utilization of services among adolescents in Ghana and similar settings. Accessibility could be geographical or related to the design of the health facility. Previous evidence shows that most adolescent SRHR services do not provide enough privacy for adolescents, thereby discouraging them from using the services.

In interviews with health providers in the West Gonja District, the lack of privacy was attributed to the design of the facilities, which makes it possible for them to provide optimum privacy for adolescents (34). Some of the health providers in that study disclosed:

> *"…The lack of privacy is due to how our facilities were designed. Many of our facilities in this district have no space provided for that. Lack of confidentiality from health personnel, as well as inadequate qualified personnel are serious challenges that we face on the daily basis"* (IDI, Midwife-1).

> *"….Our consulting rooms are not safe. When a person comes with a sexually transmitted infection, they often not able tell us because some people may hear the conversation. They rather try to hide the truth from you and begin to tell you about other things, leaving you to guess the problem"* (IDI, Public Health Nurse).

In a study of the utilization of SRHR services among adolescents at Asante Akyem North District in Ghana, most participants were comfortable with the location of the SRHR facility.

The adolescents disclosed that several other activities take place at the same facility, making it difficult for people to detect that goes on there (57).

Distance to health facility is also reported as a major challenge in the utilization of SRHR services in the UWR and similar settings in Ghana. Adolescents, especially those residing in rural areas have to travel long distances to access healthcare in Ghana (68). In the study conducted among adolescents in the Asante Akyem North district, adolescents' distance to the location of the health facility were barriers to and at the same time enablers to others depending on the person's residence and the person's preferences (57).

Some of the adolescents in that study disclosed:

> *"For me, where I stay is closer to the facility so I do not have any problem. Anytime I want to go there; I can just walk in ...I can easily go." PF, age 17 years*

> *"I am not able to go there regularly because of the distance. In fact, it is very far from where I am staying." PM, age 18 years*

Availability of health staff and services

The utilization of adolescent SRHR services is also influenced by the availability of services. The 2014 GDHS report also indicate a relatively high coverage of maternity services for teenagers and adolescents in Ghana; 97% of young women <20years received antenatal care from a skilled health provider (6). However, other specific youth and adolescent SRHR services might be inadequate. According to the adolescent Health Services Policy and Strategy report (69), there are extremely few youth centers in the whole of Ghana with all located in urban areas (4 overall) despite the ratification of the policy of one youth center per region in Ghana. The existing centers also lack resources such as staffing, equipment and finances. The reports also indicated that the functioning of the current youth friendly services are not sufficient to address the growing health demand of adolescents in the country (69). The UWR in Ghana also face challenges with the availability of health staff. According to the 2016 Annual report by the GHS, the UWR had the least proportion of health workers as compared to the regions in Ghana (<5%) (70).

In a study of availability of modern contraceptives Adjei et al (67) found a low availability of some contraceptives in public and private health facilities, including the implants (14%) and IUDs (14%). The study also reported that emergency contraceptives were least found, although the oral contraceptives (82%) and male condoms (78%) and were largely available in public health facilities (67). The study by Kyileh et al (32) also reported general availability of adolescent SRHR services in the West Gonja District, for which adolescents were aware and know how to access them with the exception of comprehensive abortion care. The

available services included health education, counselling, provision of contraceptives. Some health workers in the study had these to say:

> *"We have service-points for adolescent reproductive health service in this district where we provide education, counselling, contraceptive service and comprehensive abortion care to adolescent who visit us" (IDI, Public Health Nurse).*

> *''There are outreach services for communities where there is no clinic or hospital to provide reproductive health service"(IDI, Midwife-2).*

Affordability: Ability to pay (direct/indirect)

Accessibility of SRHR services could also be influenced by the ability to pay for the service. Although services may be geographically assessable, not all are affordable to adolescents (71). In the recent study by Agyei (57), some participants reported lack of affordability and how it impedes the frequency with which they accessed the SRHR services. Some participants suggested that the National Health Insurance Scheme (NHIS) should cover the SRH services to enhance its access utilization. An adolescent opined:

> *"It is not affordable. The first time that I went, they collected GH¢8.00 and the second time they collected GH¢1.00. However, we have NHIS… it should be able to cover all. That is why I skip some of the appointments." PA, age 17 years*

Challenges with access to SRHR services have also been reported in among adolescents in Nigeria (72). In that study, the overall financial and geographical access to SRHR services was 58.4% and 50.5% respectively. Majority adolescents in that study perceived sexuality education as financially (58.7%) and geographically (66.7%) accessible whereas family planning was only geographically accessible (51.9%). On the other hand, safe motherhood services were perceived by majority of the adolescents as geographically (70.6%) and financially (61.7%) accessible.

Acceptability: health seeker /provider interaction, provider attitude and sex of provider

The attitudes of health providers also play important role in utilization of SRHR services; they influence the quality of services. Health providers can facilitate or discourage the services depending on their attitude. According to Biddlecom et al, adolescents' positive appraisal of SRHR services are based on service availability accessibility, confidentiality, affordability and being treated with reverence (47).

A qualitative evidence from Ghana showed that the health provider's attitude towards adolescents, confidentiality of service provision, and meeting the needs of adolescents for information and services were important reasons behind young people's decision to either sought or considered seeking health care (73). In Ghana, anecdotal evidence showed that some healthcare providers turn away adolescents who visit health facilities for services relating to family planning (74).

Attitude of health providers creates inconvenience and challenges for young people to access contraceptive services including buying of condoms. In most Ghanaian communities, evidence show that adolescents who go to acquire condoms are labelled as "bad boys or girls" and some adolescents are afraid that health providers, especially drugstore sellers, will report the incidence to their parents (34). In the qualitative study by Kyileh et al, adolescents shared these opinions:

> *"In this community, if an adolescent ask about sexual and reproductive issues, the person will be seen as a bad girl or boy. So we are afraid to go to the clinic and hospital for such services. Imagine a girl going to the hospital to do something and the information comes out that you went there to do abortion. People will say you are bad, and if you are not lucky, the information could spread to all over town the next day"(female, FGD, out-of-school).*

> *"… Some of the nurses are not polite especially to us the young people. You go there with a problem then they will be shouting at you or even insulting you saying you are bad girl or boy. The authorities should punish or even sack such people, but you see, some of us do complain about these things but nothing happens to them" (Male, FGD, In-school).*

The issue of lack of confidentiality from health providers was also reported in the study by Kumi-Kyereme, Awusabo-Asare and Maafo Darteh (58) in rural Northern and urban metropolitan assemblies in Ghana. The study found lack of empathy, unsympathetic and judgmental attitudes among health workers. Health workers in that study disclosed that some of their colleagues are not able to communicate in a friendly manner with adolescents and such behavior alienate young people and prevent them from using the health facility. In that study, one health worker opined:

> *"Another problem is the attitude of health care providers towards these kids. They need to learn to talk to them nicely and make friends with them. In this way, they [adolescents] will talk freely. But if you are harsh and mistreat them, then it is a lost case." (Urban female health worker, 49 years)*

The attitudes of adolescents towards SRHR are to a large extent rooted in the social context surrounding adolescent sexuality. As reported by the Biddlecom et al (27), adolescents do not access SRHR services because they feel afraid, embarrassed or shy to seek such services. Among Ghanaian adolescents studied, 63.8% of females and 58.6% of males felt afraid, embarrassed of shy to access contraceptive methods whereas 40.5% and 39.7% could not access diagnosis and treatment for STIs for the same reason (27). Similar observations have been reported in studies conducted in Ethiopia (75) and in Kenya and Zimbabwe (71) where adolescents reportedly considered the friendliness of health staff as the most important factors in seeking SRHR services.

3.1.4 Need factors

Perceived needs of SRHR services

Utilization of healthcare is also dependent on one's perceived needs of the service (76). Perceived needs of an adolescent may include features of the his/her values, attitudes, and knowledge about health problems and services that influence their perception of their need for healthcare (76). Adolescents may have needs for SRHR information on abortion care, STIs and questions about their sexuality especially in rural settings in Ghana where quest for services such as abortion care is stigmatized (67). For instance, high perception of the severity of SRHR problems may increase the perception of threat of an adolescent who would be more likely to utilize the services. A study conducted in among adolescents in the rural communities in the central part of Ghana among adolescents 10-19 years old also reported some negative perceptions about the need of contraceptives. Some adolescents in the study felt that condom was the responsibility of females (77). Some of the adolescents in the study disclosed that;

> *"Contraceptive use was solely the responsibility of women (41.1% females and 32.4% males); and that the use of contraceptives could lead to promiscuity among women"(43.8% females and 42.5% males)*

In a study conducted among rural females in Northern Ethiopia, majority (69.1%) of adolescent females had high perception of severity of SRHR problems (76). Adolescents who had a high perceived severity of SRHR issues had increased propensity of utilizing SRHR services (AOR = 4.05, 95% CI: 2.68–6.11). The perceived needs of SRHR services could also vary among different subgroups of young people. Married and older adolescents are more likely to use certain SRHR services as compared to their compatriots. The study of Marrone et al.,(53) found that married adolescents as well as married respondents were more likely to use contraceptives as compared with their unmarried peers (OR , 95%: 0.27, CI 0.11-0.67, p = 0.005).

Evaluated needs of SRHR services

The 2014 GDHS 2014 reported that 14% of women who in childbearing age in Ghana are teenagers and a higher proportion of these live in rural settings (17%).(10) According to the 2016 Annual Report of Ghana Health Service, 11.8% adolescent pregnancies and 16.4% rate of abortions amongst adolescents.(32) The Adolescent Health Service Policy And Strategy (2016-2020) also indicates that, child marriage is prevalent especially in the rural parts of Ghana; 1 in every 5 female adolescent gets into marriage before the age of 18.(78) The Incidence of sexual violence of various forms constitute more than 38% of adolescents of 15-19 years and physical violence was recorded above 47% of females below 24 years.(79) Wombeogo and Kuuzuing (80), in their study of adolescent reproductive health choices in the UWR of Ghana found that majority of adolescents (94%) acquire information about reproductive health from their peers and majority (72.1%) engage in unprotected sexual practices.

According to the 2014 GDHS report, among adolescents (15-19years), knowledge of any form on contraceptives improved from 85.6% in 1993 to 96.5% 2014 (10). However, according to the GDHS report, only 16.7% of married female adolescents were using modern family planning methods in 2014 from a low of 8.1% in 1993 (10). Among young people aged 20-24 years, the use of contraceptives increased from 7.5% in 1993 to 24.8% in 2014, according to the GDHS report. Previous studies have demonstrated that adolescents females had no knowledge of the outcomes of premarital sex makes them susceptible to unintended pregnancies, unsafe abortion and its related complications, and STIs (55).

Adolescents who have been educated and are aware of the importance of contraceptives and how to consistently and appropriately use them are most likely to use them. In a study among adolescents in the West Gonja district, some adolescents (out-of-school 6; in-school 15) could identify abstinence and use of other contraceptives methods to prevent pregnancies (34). The use of contraceptives was lowest among young women in the Northern region compared to other regions in Ghana and was higher among those with secondary or higher education (10). The 2014 GDHS report also show that 20% of young women and 27% young men have comprehensive knowledge of AIDS (10). Knowledge of the a source of condom was 88% among young men (15-24 years) and 72% among young women.

A study conducted among adolescents with pregnancy experience in the Bolgatanga Municipality in 2016 also found low knowledge of SRH services (81). In their study, which utilized qualitative methods, most of the adolescent girls had heard about condoms and knew condoms offer protection against diseases and pregnancies but their knowledge of the use of condoms was less clear, with most of the girls having no idea how to use them. Some of the adolescent girls also had no idea how condoms look like. Knowledge about family planning was also limited to injectable methods with most of the girls having only heard of it (81).

A study on knowledge of and family planning needs among adolescents in the rural communities of Ghana found a high level of Knowledge of contraceptive among adolescents; 87.7% females and 82.0% with males (77). Knowledge of traditional methods of family planning was also lower among both male and female adolescents males (48.6% and 33.9% respectively) and was higher among those who had never been in any relationship or not sexually active (77).

The needs of SRHR services among adolescents differs between urban and rural settings, with the gap being widened in rural settings. The UWR is the least urbanized region in Ghana, with the highest inequality in wealth (6 in 10 of the population belong to the lowest wealth quintile) (6). Knowledge of source of contraceptives was found to be higher among urban compared to rural dwellers, for both women (82.2% versus 60.5%) and men (94.2% versus 81.4%), according to the 2014 GHDS report (10). The report further estimated that among unmarried young men and women (15-24years), the proportion who used condoms

during their last sexual intercourse was also higher for urban (men 21.2%, women 43.9%) compared to rural dwellers (men 18.5%; women 37.1%) (10). The study by Marrone et al (53) found a higher prevalence of current contraceptive use among urban (60%) compared to rural adolescents (25%) in Ghana, with rural residents having lesser likelihood of modern contraceptive usage (OR 0.32, CI 0.12-0.84, p = 0.021).

CHAPTER FOUR: INTERVENTIONS THAT IMPROVED ACCESS TO SEXUAL REPRODUCTIVE HEALTH SERVICES AMONG ADOLESCENTS

Table 3 presents results of various interventions rolled out to improve access to SRHR among adolescents, their effects and implementation challenges. These interventions were chosen because they address specific aspects of the Anderson's framework including the enabling factors, and focus on improving the utilization of SRHR among adolescents.

4.1. "For a Better Tomorrow" (Kesho iliyo njeme) programme

"For a Better Tomorrow" (Kesho iliyo njeme) programme was a program launched in Tanzania to prepare adolescents towards their future and to help them obtain a better future (82). This programme addressed the predisposing and need factors of the Anderson's framework and focus on improving the knowledge and attitudes of adolescents to make more informed choices about their SRHR. Using a quasi-experimental design, an evaluation of the programme found significant increase in knowledge about sexuality and reproductive health: girls; (pre- versus post-test; 5.9 versus 6.8; t = 7.9, p = 0.000), boys (6.4 versus 7.0; t = 4.5, p = 0.000). significant changes in adolescent sexual health behavior towards a more positive behavior was also observed; girls (pre- versus post-test; 25.8 versus 26.6; t = 3.0, p = 0.003), boys (25.6 versus 26.4; t = 2.4, p = 0.019). There was however not significant change in attitudes of the adolescents towards SRHR services. The programe included both boys and girls, and used materials that made it easier for the adolescents to understand. However, the choice of the age group of 11-16years for the evaluation study makes it a bias sample and unlikely to be generalizable to older adolescents, who have been shown to have a greater perceived need for SRHR services.

4.2 MEMA kwa Vijana Adolescent Sexual and Reproductive Health Interventions

In 2010, a randomized control trial was conducted to assess the impact of the MEMA kwa Vijana Adolescent Sexual and Reproductive Health Interventions Rural Mwanza, Tanzania (67). The purpose of the intervention was to improve the use of SRHR services among young people. The intervention consisted of four major aspects; a reproductive health education in primary school, the provision of youth friendly SRHR services, promotion and distribution of condoms in the community and community-wide activities. In addition, health workers in the intervention arm were trained on the provision of youth friendly SRHR services. The outcome of the intervention showed an increase in the use of SRHR services among young males in the intervention communities (p=0.005), with the difference increasing over time (p for trend = 0.022). The mean difference in attendance of SRHR services was 1.1 per month (95% CI=0.5-1.7). There was less effect of the intervention on attendance of SRHR services among women (p=0.087). Greater number of condoms were distributed in the intervention communities (p=0.008) and intervention health workers were found to be generally less critical and also provided more detailed comprehensive information. A major limitation of this study was missing data due to the retrospective nature of data collection at the facility level.

4.3 The Network of Adolescent and Youth of Africa (NAYA)

This study was conducted in 2015 to evaluate the the Network of Adolescent and Youth of Africa (NAYA) programme (83). The NAYA programme is a youth led regional advocacy network. This was initiated during the Second Adolescent International Conference organized by the African Regional Office of the Planned Parenthood Global in October 2001. The aim was to enhance the capacity of youth advocates to undertake Adolescent SRHR advocacy. The programmes run by NAYA focused on addressing the predisposing factors of the Anderson's frameworks, by improving the knowledge of adolescents about SRHR to enhance service utilization. These programmes include the ASK programme that work with local media to influence discussions on SRHR through radio talk shows and newspaper articles. To further enhance access and utilization of SRHR among young people, NAYA developed an active digital media component, which utilizes text messaging via phone (bulk SMS); and use of Facebook, Twitter and Google plus to promote discussions on SRHR among adolescents aged 10-24 years. These programmes have improved the knowledge and awareness of young people about reckless sexual behavior, unwanted pregnancies, rape and STI(83). However, this evaluation, was based on a qualitative study and self-report and therefore could be bias. Cost of acquiring an internet-enabled mobile phone, lack of internet connectivity, cost associated with charging of mobile phones (availability of electricity, and actual phone-data charging costs), and parental restrictions on access to phones are some challenges encountered with this initiative.

4.4 Families Matter!

Families Matter! is a 5-session, evidence-based behavioral intervention developed for primary caregivers of children aged 9-12 years in SSA countries; Kenya, Tanzania, Ivory Coast, Botswana, Tanzania, South Africa, Zambia, Mozambique and Namibia (84). A 5-step capacity building model was implemented with local government, community, and faith-based partners with good intervention fidelity (85). The aim was to enhance effective parent–child communication regarding sexuality and sexual risk reduction issues. This helps improves attitude towards SRHR and also reduce negative socio-cultural perceptions thereby addressing the predisposing factors of the Anderson's framework. Programme evaluation showed a national adoption of the programme in Kenya with >500 trained facilitators and >250,000 families reached. Overall participant retention of >90% was achieved in Ivory Coast (94.0%), Mozambique (94.9%), South Africa (91.3), Tanzania (95.6%), and Zambia (90.8%) (85). An evaluation of the programme found an improvement in parent-child communication (mean difference [md]; 1.4, 95% CI 0.8-1.9; $p<0.001$), sex education communication (child: 3.3, 2.8-3.9, $p<0.001$; parent: 5.4, 4.9-5.9, $p<0.001$) and sexual risk reduction communication (child: 4.7, 4.2-5.2, $p<0.001$; parent: 4.3, 3.9-4.7, $p<0.001$). This evaluation study however used a non-random sample which could have led to bias results. The absence of a control group, but a pre/post study design could have also led to social desirability bias (the tendency of responders to answer questions in a manners that will be deemed favorable by others)

4.5 The Africa Youth Alliance (AYA) Programmes

Between 2000 and 2006, the Africa Youth Alliance (AYA) Programmes were established in Ghana, Botswana and Tanzania to promote adolescent SRHR through outreach services (86,87). They embarked on non-traditional condom distribution (NTCD) and peer service providers (PSP) to help reduce HIV and other STIs among adolescents. The programmes targeted the predisposing factors of the Anderson's framework by ensuring availability of SRHR services to adolescents to enhance utilization as well as improve knowledge and attitudes. Participants for training were basically adolescents who in turn engage fellow adolescents groups towards a positive SRHR attitudes. A 2007 evaluation report, using a post-test-only design in combiniation of intervention-control group, shows that in Ghana, there was significant improvement in HIV knowledge (Exposed vrs unexposed: 16% vrs 9%; $p<0.05$), confidence in obtaining condom (93% vrs 92%; $p<0.05$) and confidence in insisting a partner uses condom (77% vrs 68%; $p<0.05$) among males. Among females, there was significant increase in confidence to put on condom correctly (71% versus 57%; $p<0.05$). There were also significant improvement in the use sexual behaviours such as delay in sexual debut; females: exposed vrs unexposed; 80% vrs 75%, $p<0.05$; abstinence from sex, 94% versus 90%, $p<0.05$; use of modern contraceptives 50% vrs 40%, $p<0.05$ and use of condom, 76% vrs 61%, $p<0.05$. Among males, only abstinence from sex was significantly different ($p<0.05$).

The limitations of the evaluation study included a lack of comparable baseline data and mobility of young people in the intervention area which could possibly dilute the measured impact in intervention areas. The sample was also restricted to youth age 17–22 years (married or recently married) due to manageability, cost, and time constraints making it not generalizable to younger adolescents and making it impossible to look at the analysis in other age sub categories.

4.6 The Gulu Youth Center (GYC)

The Gulu Youth Center (GYC) was established in 2004 by the Straight Talk Foundation, a national NGO, to provide SRH information and services to adolescents during the armed conflict in northern Uganda (88). GYC provides adolescents with counseling and supplies, such as condoms, to help girls and boys prevent pregnancy and infections such as HIV that are transmitted by sexual contact. The programme provided a comprehensive prevention approach made up of Talk +Services +Livelihood which encompasses edutainment that became so attractive to adolescents and the community outreach service providers of SRHR. This also helps to address the predisposing and enabling factors in the Anderson's framework. A report on the programme outcomes in 2012 showed an integrated approach like skills and livelihood development for SRH sort to empower adolescents but promoted the unity of purpose for community into protecting the vulnerable from sexual abuse within the community. These evaluation reports are however based on self-report and might not provide much reliable estimate of the programme effect. A challenge encountered initially

during the programme was the perception of parents not in support for the reason that GYC was teaching their adolescents how to have sex rather than teaching sexuality.

Table 3: Interventions to improve access to SRH services

Name of intervention	Brief description	Effect of the intervention	Implementation challenges	Component of the Anderson's framework addressed
"For a Better Tomorrow" (Kesho iliyo njeme) Tanzania	Programme aims: (i) teach and provide basic knowledge of the changes that occur in adolescence, and (ii) provide adolescents with the opportunity to think about the decisions they may make in the future	Significant increase in knowledge about sexuality and reproductive health: Girls; (pre- versus post-test; 5.9 versus 6.8; t = 7.9, p = 0.000), boys (6.4 versus 7.0; t = 4.5, p = 0.000). Significant change in sexual health related behavior: Girls (pre- versus post-test; 25.8 versus 26.6; t = 3.0, p = 0.003), boys (25.6 versus 26.4; t = 2.4, p = 0.019).	The prorgarrme had very short time for discussion.	Predisposing, perceived needs
MEMA kwa Vijana Adolescent Sexual and Reproductive Health Interventions	The aim of the intervention was to improve the use of SRHR services among young people.	An increase in use of SRHR services among young males in the intervention communities (p=0.005). The mean difference in attendance of SRHR services was 1.1 per month (95% CI=0.5-1.7). Greater number of condoms were distributed in the intervention communities (p=0.008).	Challenges with data curation at the facility level and missing data.	Predisposing, needs, enabling
The Network of Adolescents and	Aim: support the creation of enabling supportive environment to foster the	Programmes implemented by NAYA provided information	Challenges associated with the programmes that run on digital	Predisposing

Youth of Africa (NAYA) Kenya	empowerment of adolescent and youth SRHR. Some programmes run by the NAYA Kenya include the ASK programme that work with local media to influence discussions on SRHR through radio talk shows and newspaper articles.	and improved knowledge of adolescents on SRHR and led to an improvement in access to SRHR information such as among young people including information about early pregnancy and abortion(83).	media: cost of acquiring an internet-enabled mobile phone, lack of internet connectivity, lack of phones, parental restrictions on access to phones and what content children are allowed to access on phones and limited access to phones in schools due school policies and restrictions.	
The "Families matter!"	An intervention design to promote effective skills in communication of parents and their adolescents on SRH issues in 8 sub-Saharan African South Africa, countries; Botswana, Kenya, Ivory Coast, Zambia, Mozambique, Tanzania and Namibia.	An improvement in parent-child communication (mean difference [md]; 1.4, 95% CI 0.8-1.9; p<0.001), sex education communication (child: 3.3, 2.8-3.9, p<0.001; parent: 5.4, 4.9-5.9, p<0.001) and sexual risk reduction communication (child: 4.7, 4.2-5.2, p<0.001; parent: 4.3, 3.9-4.7, p<0.001).		Predisposing factors
The Africa Youth Alliance Programme, Ghana, Tanzania, Botswana	were established in Ghana, Botswana and Tanzania to promote adolescent SRHR through outreach services. Aimed at promoting the ASRHR mainly through Outreach services with the adoption of two strategies like nontraditional condom distribution(NTCD) and peer service providers(PSP) so as to reducing HIV and other STIs among adolescents.	Significant improvement in HIV knowledge (Exposed vrs unexposed: 16% vrs 9%; p<0.05), confidence in obtaining condom (93% vrs 92%; p<0.05) and confidence in insisting a partner uses condom (77% vrs 68%; p<0.05) among males. Among females, there was significant increase in confidence to put on condom correctly (71% versus	- Sociocultural norms against ASRHR education activities - Prevention of prospective peers from partaking in activities by colleague peer providers thereby reducing the effectiveness	Predisposing factors

		57%; p<0.05).		
The Gulu Youth Center (GYC)	The GYC was lunched in Uganda in the year 2004 by a national NGO to provide youth, adolescents and their parents SRHR information, to provide a comprehensive prevention to adolescents and the community outreach service providers of SRHR.	Skills and livelihood development for SRH; sort to empower adolescents but promoted the unity of purpose for community into protecting the vulnerable from sexual abuse within the community.	Parents were not in support of the programme because they had the perception that GYC was teaching their adolescents how to have sex rather than teaching sexuality.	Enabling and predisposing factors

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

This section discusses and interprets the findings of this review. The discussion is contextualized to the UWR of Ghana and explores opportunities for possible recommendations to improve access and utilization of adolescent SRHR services in the region. The organization of this discussions follows the objectives of the study and, after which the strengths and weaknesses of the analytical framework of this review are provided.

The main findings of the review was that adolescents have needs of various aspects of SRHR services including knowledge, access and use of contraceptive methods and SRHR services such as abortion care. Utilization of SRHR services was influenced by predisposing factors such as age, education, knowledge of health services and socio-cultural practice, enabling factors such as service availability, affordability and accessibility and also perceived needs of health services. This review also found that youth-focused intervention programmes such as the MEMA kwa Vijana Adolescent SRH Interventions could improve knowledge and behavior of adolescents regarding SRHR services and thus improve utilization.

5.1 The needs of adolescents with regards to SRH services in UWR of Ghana

Findings of this review demonstrate a dire need of SRHR services in the UWR of Ghana. Using evidence from the region and similar settings in Ghana, it was revealed that some adolescents lacked the knowledge of SRHR services including abortion care and traditional methods of family planning (77). It was also revealed that some adolescents do not have knowledge of where to acquire condoms, do not know how to use condoms, or are not using condoms during sexual intercourse and adolescents females lack knowledge about the effects of unprotected premarital sex (44).

Knowledge of source of contraceptives and use of condoms during sexual intercourse(10), as well as use of current contraceptives(53) are for instance found to be higher among urban dwelling adolescents compared with rural dwellers. Living in an urban environment is found to predispose adolescents to information and sources of SRHR services.

5.2 Factors influencing access and utilization of SRHR services among adolescents in UWR

Findings from this review show the important contribution of predisposing, enabling and need factors to the access and utilization of SRHR services among adolescents. Among the predisposing factors, the age, education, gender, knowledge of SRHR services and socio-cultural factors were found to influence utilization of SRHR services.

It was revealed that older adolescents had higher change of using SRHR services and this is explained by their level of maturity and possibly the level of need; older adolescents more likely to be in sexual relationships or probably to get married. Older adolescents also have higher level of knowledge of SRHR (10), probably due to their level of understanding. The role of educational level of the use of SRHR is also shown in this review. Increasing level of education is associated with increased use of SRHR services including the use of

contraceptives, and the uneducated were the least likely to use SRHR. This could however be an indication that awareness creation about SRHR services are not properly tailed to reach the non or least educated.

Adolescents' knowledge about SRHR influence the utilization of SRHR services. Knowledge is an important determinant of healthcare utilization, and despite governments' efforts to ensure universal access to SRHR services, utilization would depend on the knowledge and awareness of these services among adolescents. Major national and international policy documents and guidelines for improving adolescents health recognizes the importance of knowledge in efforts to improve the usability of SRHR services among adolescents. Adolescents who have been educated about contraceptives are for instance more likely to use them as compared to those who have not been educated (55). Current knowledge gaps in the utilization of SRHR services indicate the inadequacy of current SRHR programmes to address knowledge gaps among adolescents in the UWR and Ghana as a whole. Despite efforts by government to address the unmet needs of SRHR, it is revealed that these strategies are not supported with the needed youth-friendly facilities and programme to help address these knowledge gaps (89). These gaps are widened in rural settings such as UWR, where the problem of inadequacy of SRHR programmes is much bigger.

Reproductive health choices and behaviours are rooted in socio-cultural perceptions, making it impossible to focus only on knowledge and behavior change as a way to improve utilization of SRHR services among adolescents. This review shows that socio-cultural practices could hamper adolescent health choices and utilization, especially among rural populations like the UWR of Ghana. These socio-cultural perceptions include the general norm of using sex for gifts, early marriages, FGM (34). One deliberating observation, is the fact that these perceptions are held by various sects of the population including opinion leaders, making it difficult to demystify. Educational interventions that targets behavioural changes should therefore be focused on addressing these deep rooted perceptions in the entire population.

It was also revealed that enabling factors such as service accessibility, availability, affordability and attitudes of staffs are related to the use of SRHR services. The government of Ghana has over the years initiated many steps to improve the availability and accessibility of reproductive health service, some of which have been discussed above. Some adolescents however, are missed out of SRHR due to their inability of pay for SRHR services (71). In rural areas, where most households live in poverty, cost of adolescent SRHR cannot be taken up together with the cost of providing foods and other basic amenities for the household. It is believed that the expansion of the NHIS to cover these services would help bridge the access gap in SRHR.

The free maternal health initiative under the NHIS programme aimed at reducing cost-related barriers to reproductive and maternal health services in Ghana. However, some adolescents might not be able to use these services due to the distance and the inadequacy

of health staff of service providers at some facilities. This review shows how attitude of staff hinders access to health services among adolescents. Some health staff for instance turn away adolescents who seek contraceptive and family planning services (74) and in some instance label adolescents as "bad boys or girls" (34). Some health workers are labelled as unsympathetic and judgmental, instilling fear in adolescents to assess SRHR related services (58). This wanes the confidence of young people in seeking care, as their expected caregivers do not open up to them. Central to the utilization of SRHR is the perceived need of the service. A high perceived severity of SRHR need is found to increase use of SRHR services among adolescents (76). Married adolescents, who are sexually active might have a higher perceived need to contraceptives and there have higher level of utilization.

The review has also shown and interrelation of the factors influencing utilization of SRHR among adolescents. These factor work in synergy to influence the utilization of SRHR services among adolescents. For instance, an adolescent who is uneducated is more likely to also have less knowledge of SRHR services and more socio-cultural misconception that influence the utilization of SRHR services. These inter-connections and clustering of these factors calls for a multi-sectoral approach to improving the utilization of SRHR services among adolescents.

5.3 Interventions that improved access to sexual reproductive health services among adolescents

Findings from this review further shows that interventions focusing adolescents could help address some barriers to the utilization of SRHR services in the UWR of Ghana. Interventions such as the "For a Better Tomorrow'' and MEMA kwa Vijana showed improvement in knowledge and sexuality related behavior. This helps address the barriers relating to knowledge of SRHR services and help tackle the predisposing factors. The MEMA Kwa Vijana programme improved utilization of SRHR services among young people and health providers in the intervention communities were found to be less judgmental. The "Families Matter" interventions also improved communication on sexual behaviors and health risks between mothers and adolescents. Communication about sexuality could help address the misconceptions and misunderstanding of SRHR among adolescents. Some of these interventions are however not implemented in the UWR and the findings might not be directly translated to the UWR without proper adaptation. This should take into consideration the implementation context and the challenges that may arise and how these could be addressed before programme implementation. Context specific factors such as educational level, socio-cultural practices and rural-urban proportions might also play a role in the level of acceptability and effectiveness of such interventions.

Methodological limitations

The individual studies included in this review might have some limitations. Some of the studies were qualitative and therefore could not show with proportions the utilization of SRHR services and the factors influencing utilizations. Some outcomes were also self-

reported and could have been subjected to bias. However, the qualitative evidence also provided insight into the actual views and feelings about SRHR services in Ghana. Among the evaluation programmes and related intervention studies, pre-test and post-test intervention evaluation methodology such as quasi-experimental studies were mostly utilized. The absence of control groups in these analysis could lead to social desirability bias in some of the interventions.

Due to limited evidence from the UWR, some studies from similar settings have been included in the review. Although comparable due to the study setting and populations, the limited sample size and lack of robust methodology in some studies lead to bias estimates, making generalizability a challenge.

Strength and weaknesses of the analytic framework

This framework helped in demonstrating how several factors contribute to the access and utilization of SRHR services. These factors can be enabling factors such as socio-economic status, predisposing factors such as knowledge and socio-cultural practices or could be related to needs and availability and accessibility of health factors. The findings and discussions of this review showed overlaps and linkages between these factors as demonstrated by the analytical framework.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The sexual and reproductive health condition of an adolescent has great implication on their health in later life as well as the health of the next generation. However, most adolescents, especially in LMICs like Ghana are unable to access the requisite SRHR services to guide their reproductive health choices and decisions. This review was therefore conducted to access the factors associated with access and utilization of SRHR services among adolescents. The analysis was guided by the Anderson's framework of healthcare utilization, which identifies key dimensional areas where utilization of healthcare could be influenced.

The review of literature suggests that there are still unmet needs for SRHR services despite government efforts to ensure universal access to SRHR services. The enactment of policies and guidelines has not been supported by provision of Knowledge of SRHR among young people and utilization of services have increased over the years, yet some adolescents lack comprehensive knowledge of SRHR and do not have access to services.

Generally, it was revealed that utilization of SRHR services in the UWR is influenced by the intersection of all components of the Anderson's framework including the predisposing factors (age, education, knowledge level, socio-cultural perceptions and practices), enabling factors (acceptability, affordability, health staff attitudes) and need factors. Education was found to be a major factor that influence utilization of SRHR services. Socio-cultural practices and knowledge of adolescents were also important predisposing factors that influence

utilization of SRHR services among adolescents and increase in educational level was associated with increase in SRHR service utilization. Another important finding was healthcare availability, accessibility and attitude of health personnel. Some SRHR services are not available at health facilities and those available are not fully accessible due to the inability to afford and the negative attitude of health personnel that undermines the confidentiality of service provision. These findings demonstrates the need for a multi-sectoral approach in implementing effective measures to ensure access to SRHR services.

6.2 Recommendations

Upon arriving at a successful conclusion of issues being analyzed in this thesis above, the following recommendations has been proposed to relevant actors and stakeholders like the Ghana Ministry Of Health (MOH), Ghana Health Service, Upper West Regional Health directorate

The Ministry of Health

1. MOH, Ministry of Gender, Children and Social protection and Ministry of Education should collaborate strongly towards women empowerment, adult education, girl child education in priority regions such as UWR in order to promote literacy and wellbeing of adolescent girls.

2. MOH should strengthen the capacity of SRHR service personnel especially in the rural areas for effective planning, implementation and monitoring of activities to help improve access and utilization of services among adolescents in the UWR.

3. MOH Should also lobby with education sector ministry for a review of the educational curriculum to add education on the violation of FGM, child marriages as well as the teaching of sexuality in basic and senior high schools in Ghana.

The Ghana health service

1. Adolescent friendly health corners should be established throughout the country and fully equipped to meeting the demands of adolescents.

2. Effective SRHR interventions such as the MEMA kwa Vijana should be rolled out on pilot bases in some districts of the UWR as a starting point in improving access and utilization of SRHR services in the region.

3. SRHR service providers should be trained and regularly monitored to understand and have a positive attitude towards adolescents.

The UWR Health Directorate

1. The UWR health directorate Should adopt a regular monitoring of all health facilities in the region to comply to guidelines and policies of SRHR.

2. Embark on regular SRHR outreach talks to community opinion leaders and programs to educate and provide services in hard to reach areas of the region.

Further research by Regional health directorate research department

1. Assess and document current trends in the utilization of SRHR services among adolescents in the region

2. The health and socioeconomic impact on CM and FGM in the UWR.

REFERENCES

1. UNFPA. Family-Planning (Internet) [Internet]. 2018 [cited 2019 Aug 7]. Available from: https://www.unfpa.org/family-planning

2. World Health Organization. Female genital mutilation (internet) [Internet]. 2015 [cited 2019 Sep 7]. Available from: https://www.who.int/en/news-room/fact-sheets/detail/female-genital-mutilation

3. UNICEF. Child Marriage (internet) [Internet]. 2019 [cited 2019 Sep 7]. Available from: https://data.unicef.org/topic/child-protection/child-marriage/

4. World Health Organization. Maternal mortality ratio (Internet) [Internet]. 2014 [cited 2019 Aug 7]. Available from:

http://www.who.int/healthinfo/statistics/indmaternalmortality/en

5. Upper West Regional Coordinating Council. Regional Profile – Upper West Regional Coordinating Council [Internet]. Wa; 2016. Available from: http://www.upperwestrcc.com/town-history/

6. Ghana Statistical Service. Regional Analytical Report-Upper West Region. Accra; 2013.

7. Ghana Health Service. 2016 Upper West Regional Annual Report. Wa; 2017.

8. Ministry of Food and Agriculture. Districts-Upper West Region [Internet]. Accra; 2018. Available from: http://mofa.gov.gh/site/?page_id=1669

9. Ghanan Statistical Service. Ghana Living Standard Survey Round 6: Poverty Profile in Ghana 2005-2013 [Internet]. Accra; 2014. Available from: http://www.statsghana.gov.gh/docfiles/glss6/GLSS6_Poverty Profile in Ghana.pdf

10. Ghana Statistical Service, Ghana Health Service, ICF International. Ghana Demographic and Health Survey 2014 [Internet]. Rockville, Maryland, USA; 2015 [cited 2017 Apr 17]. Available from: https://dhsprogram.com/pubs/pdf/FR307/FR307.pdf

11. Institute for Health Metrics and Evaluations: Global Burden of Disease. Ghana Findings from the Global Burden of Disease Study. 2013.

12. TOOMANY. Female Genital Mutilation: Ghana [Internet]. 2019 [cited 2019 Jul 29]. Available from: https://www.28toomany.org/country/ghana/

13. Ghana Health Service. 2016 National Annual Report. Accra; 2017.

14. National Health Insurance Authority. Annual Report 2013. Accra; 2013.

15. Ministry of Health. Ghana Human Resources for Health Country Profile Human Resources for Health Country Profile Ghana. Accra; 2011.

16. National Development Planning Commission. 2015 Annual progress report: implementation of the Ghana shared growth and development agenda (GSGDA) II, 2014-2017. Accra; 2018.

17. World Health Organization. Programming for adolescent health and development report of World Health Organization/ United Nations population fund / the United Nations international Children's emergency fund study group on programming for adolescent's health. Geneva; 2009.

18. World Health Organization. Coming of age- Adolescent health [Internet]. Health Topics. 2018 [cited 2019 Apr 28]. Available from: https://www.who.int/health-topics/adolescents/coming-of-age-adolescent-health

19. UNFPA. Adolescent sexual and reproductive health [Internet]. United Nations Population Fund. 2014 [cited 2019 Apr 14]. Available from: https://www.unfpa.org/resources/adolescent-sexual-and-reproductive-health

20. Santhya KG, Jejeebhoy SJ. Sexual and reproductive health and rights of adolescent

girls: evidence from low- and middle-income countries. Glob Public Health [Internet]. 2015 [cited 2019 Apr 14];10(2):189–221. Available from: http://www.ncbi.nlm.nih.gov/pubmed/25554828

21. UNFPA. Programme of Action: Adopted at the International Conference on Population and Development, Cairo. 5-13 September 1994 [Internet]. New York; 1994. Available from: https://www.unfpa.org/sites/default/files/event-pdf/PoA_en.pdf

22. UNFPA. ICPD AND HUMAN RIGHTS: 20 years of advancing reproductive rights through UN treaty bodies and legal reform [Internet]. New York; 2013. Available from: https://www.unfpa.org/sites/default/files/pub-pdf/icpd_and_human_rights_20_years.pdf

23. Tlaye KG, Belete MA, Demelew TM, Getu MA, Astawesegn FH. Reproductive health services utilization and its associated factors among adolescents in Debre Berhan town, Central Ethiopia: a community-based cross-sectional study. Reprod Health [Internet]. 2018 Dec 27 [cited 2019 Apr 14];15(1):217. Available from: http://www.ncbi.nlm.nih.gov/pubmed/30587220

24. Lindberg C, Lewis-Spruill C, Crownover R. Barriers to sexual and reproductive health care: Urban male adolescents speak out. Compr Child Adolesc Nurs. 2006;

25. Hock- Long L, Herceg-Baron R, Cassidy AM, Whittaker PG. Access to Adolescent Reproductive Health Services: Financial and Structural Barriers to Care. Perspect Sex Reprod Health. 2004;

26. Yadufashije DC, Sangano GB, Samuel R. Barriers to Antenatal Care Services Seeking in Africa. SSRN. 2017.

27. Biddlecom AE, Munthali A, Singh S, Woog V. Adolescents' Views of and Preferences for Sexual and Reproductive Health Services in Burkina Faso, Ghana, Malawi and Uganda. Afr J Reprod Health. 2010;

28. Mbeba RM, Mkuye MS, Magembe GE, Yotham WL, Mellah AO, Mkuwa SB. Barriers to sexual reproductive health services and rights among young people in Mtwara district, Tanzania: a qualitative study. Pan Afr Med J [Internet]. 2012 [cited 2019 Apr 14];13 Suppl 1(Suppl 1):13. Available from: http://www.ncbi.nlm.nih.gov/pubmed/23467684

29. Self A, Chipokosa S, Misomali A, Aung T, Harvey SA, Chimchere M, et al. Youth accessing reproductive health services in Malawi: drivers, barriers, and suggestions from the perspectives of youth and parents. Reprod Health [Internet]. 2018 Dec 19 [cited 2019 Apr 14];15(1):108. Available from: https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-018-0549-9

30. Fuentes L, Ingerick M, Jones R, Lindberg L. Adolescents' and Young Adults' Reports of Barriers to Confidential Health Care and Receipt of Contraceptive Services. J Adolesc Health [Internet]. 2018 [cited 2019 Apr 14];62(1):36–43. Available from: http://www.ncbi.nlm.nih.gov/pubmed/29157859

31. Bersamin M, Fisher DA, Marcell A V, Finan LJ. Reproductive Health Services: Barriers to Use Among College Students. J Community Health [Internet]. 2017 Feb [cited 2019

Apr 14];42(1):155–9. Available from: http://www.ncbi.nlm.nih.gov/pubmed/27604424

32. Ghana Health Service. 2016 Annual Report, Family Health Division. 2016;68.

33. Ahorlu CK, Pfeiffer C, Obrist B. Socio-cultural and economic factors influencing adolescents' resilience against the threat of teenage pregnancy: a cross-sectional survey in Accra, Ghana. Reprod Health [Internet]. 2015 Dec 23 [cited 2019 Apr 14];12(1):117. Available from: http://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-015-0113-9

34. Kyilleh JM, Tabong PT-N, Konlaan BB. Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. BMC Int Health Hum Rights [Internet]. 2018 [cited 2019 Apr 14];18(1):6. Available from: http://www.ncbi.nlm.nih.gov/pubmed/29361947

35. Ghanan Statistical Service. Ghana Multiple Indicator Cluster Survey with an Enhanced Malaria Module and Biomarker [Internet]. Accra; 2014. Available from: http://www.unicef.org/ghana/Ghana_MICS_Final.pdf

36. Ghana Business News. Upper West Region lacks adolescent friendly health facilities - Health Coordinator [Internet]. 2011 [cited 2019 Apr 14]. Available from: https://www.ghanabusinessnews.com/2011/11/27/upper-west-region-lacks-adolescent-friendly-health-facilities-health-coordinator/

37. UNFPA. International Conference on Population Development: Investing in people : National Progress in Implementing the ICPD Programmme of Action 1994-2004. A summary report. New York; 2004.

38. African Commission on Human and Peoples'Rights. Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa [Internet]. 2003 [cited 2019 May 5]. Available from: http://www.achpr.org/instruments/women-protocol/

39. Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? J Health Soc Behav [Internet]. 1995 Mar [cited 2019 Apr 18];36(1):1–10. Available from: http://www.ncbi.nlm.nih.gov/pubmed/7738325

40. Donabedian A. Aspects of Medical Care Administration: Specifying Requirements for Health Care. Cambridge MA; 1973.

41. Greenlick MR, Freeborn DK, Gambill GL, Pope CR. Determinants of medical care utilization: the role of the telephone in total medical care. Med Care [Internet]. [cited 2019 Jul 29];11(2):121–34. Available from: http://www.ncbi.nlm.nih.gov/pubmed/4688478

42. Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. Med Care [Internet]. 1981 Feb [cited 2019 Jul 29];19(2):127–40. Available from: http://www.ncbi.nlm.nih.gov/pubmed/7206846

43. Oliver A, Mossialos E. Equity of access to health care: outlining the foundations for

action. J Epidemiol Community Health [Internet]. 2004 Aug [cited 2019 Jul 29];58(8):655–8. Available from: http://www.ncbi.nlm.nih.gov/pubmed/15252067

44. Berg Y. Utilization and access of health services. [Handout]. Health system and planning management. Amsterdam; 2012.

45. Ghana Health Service Family Health Division. 2014 family health annual report of Ghana. Accra; 2015.

46. World Health Organization. Building a safe house on firm ground: key findings from a Global Values and Preferences Survey regarding the sexual and reproductive health and human rights of women living with HIV. Geneva; 2015.

47. Svanemyr J, Amin A, Robles OJ, Greene ME. Creating an Enabling Environment for Adolescent Sexual and Reproductive Health: A Framework and Promising Approaches. J Adolesc Heal. 2015 Jan;56(1):S7–14.

48. Nyarko SH. Prevalence and correlates of contraceptive use among female adolescents in Ghana. BMC Womens Health [Internet]. 2015 Dec 19 [cited 2019 Jul 22];15(1):60. Available from: http://bmcwomenshealth.biomedcentral.com/articles/10.1186/s12905-015-0221-2

49. Janet C, James Onyango O, Cheptoo K. Socio-Economic Factors Affecting Access to Reproductive Health Information among Teenage Girls in Kaptembwo, Nakuru, Kenya. IOSR J Humanit Soc Sci (IOSR-JHSS [Internet]. 2018 [cited 2019 Jul 22];23(7):45. Available from: www.iosrjournals.org

50. Gebreyesus H, Teweldemedhin M, Mamo A. Determinants of reproductive health services utilization among rural female adolescents in Asgede-Tsimbla district Northern Ethiopia: a community based cross-sectional study. Reprod Health [Internet]. 2019 Jan 11 [cited 2019 Jul 23];16(1):4. Available from: http://www.ncbi.nlm.nih.gov/pubmed/30634991

51. Aseweh Abor P, Abekah-Nkrumah G, Sakyi K, Adjasi CKD, Abor J. The socio-economic determinants of maternal health care utilization in Ghana. Int J Soc Econ [Internet]. 2011 Jun 7 [cited 2019 Aug 8];38(7):628–48. Available from: https://www.emeraldinsight.com/doi/10.1108/03068291111139258

52. Apanga PA, Adam MA. Factors influencing the uptake of family planning services in the Talensi District, Ghana. Pan Afr Med J [Internet]. 2015 [cited 2019 Jul 23];20. Available from: http://www.panafrican-med-journal.com/content/article/20/10/full/

53. Marrone G, Abdul-Rahman L, De Coninck Z, Johansson A. Predictors of contraceptive use among female adolescents in Ghana. Afr J Reprod Health [Internet]. 2014 Mar [cited 2019 Jul 23];18(1):102–9. Available from: http://www.ncbi.nlm.nih.gov/pubmed/24796174

54. Glover EK, Bannerman A, Pence BW, Jones H, Miller R, Weiss E, et al. Sexual Health Experiences of Adolescents In Three Ghanaian Towns. Int Fam Plan Perspect [Internet]. 2003 [cited 2019 Aug 7];29(1):32–40. Available from: https://www.guttmacher.org/sites/default/files/article_files/2903203.pdf

55. Titiloye MA, Ajuwon AJ. Knowledge and quality of adolescents reproductive health communication between parents and their adolescents children in Ibadan, Nigeria. J Public Health Africa [Internet]. 2017 Jun 23 [cited 2019 Jul 15];8(1):688. Available from: http://www.ncbi.nlm.nih.gov/pubmed/29109856

56. Biddlecom AE, Munthali A, Singh S, Woog V. Adolescents' views of and preferences for sexual and reproductive health services in Burkina Faso, Ghana, Malawi and Uganda. Afr J Reprod Health [Internet]. 2007 Dec [cited 2019 Jul 15];11(3):99–110. Available from: http://www.ncbi.nlm.nih.gov/pubmed/18458737

57. Agyei FB. Utilisation Of Sexual And Reproductive Health Services Among Adolescents At Asante Akyem North District. University of Ghana; 2017.

58. Kumi-Kyereme A, Awusabo-Asare K, Kofuor E, Darteh M. Attitudes of Gatekeepers Towards Adolescent Sexual and Reproductive Health in Ghana [Internet]. Vol. 18, African Journal of Reproductive Health. 2014 [cited 2019 Jul 15]. Available from: http://www.bioline.org.br/pdf?rh14052

59. Dessie Y, Berhane Y, Worku A. Parent-Adolescent Sexual and Reproductive Health Communication Is Very Limited and Associated with Adolescent Poor Behavioral Beliefs and Subjective Norms: Evidence from a Community Based Cross-Sectional Study in Eastern Ethiopia. Wallander JL, editor. PLoS One [Internet]. 2015 Jul 13 [cited 2019 Jul 22];10(7):e0129941. Available from: https://dx.plos.org/10.1371/journal.pone.0129941

60. Manu AA, Jonathan Mba C, Quansah Asare G, Odoi-Agyarko K, Kofi Oduro Asante R. Parent-child communication about sexual and reproductive health: evidence from the Brong Ahafo region, Ghana. 2015 [cited 2019 Jul 21]; Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4359389/pdf/12978_2015_Article_3.pdf

61. UNFPA. Socio-cultural influences on the reproductive health of migrant women: a review of literature in Viet Nam [Internet]. Hanoi; 2011 [cited 2019 Jul 15]. Available from: https://www.unfpa.org/sites/default/files/pub-pdf/Migrant_Vietnam_.pdf

62. Awusabo-Asare K, Abane A, Kumi-Kyereme A. Adolescent Sexual and Reproducve Health in Ghana: A Synthesis of Research Evidence. Occasional Report No. 13. Accra; 2015.

63. Senadza B. Education inequality in Ghana: gender and spatial dimensions. J Econ Stud [Internet]. 2012 Oct 26 [cited 2019 Aug 8];39(6):724–39. Available from: https://www.emeraldinsight.com/doi/10.1108/01443581211274647

64. Stephens D. Girls and basic education in Ghana: A cultural enquiry. Int J Educ Dev. 2000;

65. UNICEF. Child marriage. Accra: UNICEF. Accra; 2015.

66. The Parliament of The Republic of Ghana. The Constitution of The Republic of Ghana (Amendment) Act. Accra; 1999.

67. Larke N, Cleophas-Mazige B, Plummer ML, Obasi AIN, Rwakatare M, Todd J, et al. Impact of the MEMA Kwa Vijana adolescent sexual and reproductive health interventions on use of health services by young people in rural Mwanza, Tanzania: Results of a cluster randomized trial. J Adolesc Heal [Internet]. 2010 Nov 1 [cited 2019 Aug 13];47(5):512–22. Available from: https://www-sciencedirect-com.proxy.library.uu.nl/science/article/pii/S1054139X1000176X

68. Buor D. Analysing the primacy of distance in the utilization of health services in the Ahafo-Ano South district, Ghana. Int J Health Plann Manage [Internet]. 2003 Oct [cited 2019 Aug 8];18(4):293–311. Available from: http://www.ncbi.nlm.nih.gov/pubmed/14727709

69. Ghana Health Service. Adolescent Health Service Policy and Strategy (2016-2020) [Internet]. Accra; 2016. Available from: https://www.afro.who.int/sites/default/files/2017-10/ADOLESCENT HEALTH SERVICE POLICY AND STRATEGY.pdf

70. Ghana Health Service. Annual report 2016. Accra; 2016.

71. Erulkar AS, Onoka CJ, Phiri A. What is youth-friendly? Adolescents' preferences for reproductive health services in Kenya and Zimbabwe. Afr J Reprod Health [Internet]. 2005 Dec [cited 2019 Jul 24];9(3):51–8. Available from: http://www.ncbi.nlm.nih.gov/pubmed/16623189

72. ODO AN, SAMUEL ES, NWAGU EN, NNAMANI PO, ATAMA CS. Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: a mixed methods approach. BMC Health Serv Res [Internet]. 2018 Dec 8 [cited 2019 Jul 24];18(1):92. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2779-x

73. Kumi-Kyereme Kofi Awusabo-Asare Ann Biddlecom A, Ouedraogo C, Guiella G, Ezeh A, Zulu E, Madise N. Adolescents' Sexual and Reproductive Health: Qualitative Evidence from Ghana [Internet]. New Youk; 2007 [cited 2019 Jul 24]. Available from: www.guttmacher.org.

74. Abdul-Rahman L, Marrone G, Johansson A. Trends in contraceptive use among female adolescents in Ghana. Afr J Reprod Health [Internet]. 2011 Jun [cited 2019 Jul 24];15(2):45–55. Available from: http://www.ncbi.nlm.nih.gov/pubmed/22590892

75. Tilahun M, Mengistie B, Egata G, Reda AA. Health workers' attitudes toward sexual and reproductive health services for unmarried adolescents in Ethiopia. Reprod Health [Internet]. 2012 Dec 3 [cited 2019 Jul 24];9(1):19. Available from: http://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-9-19

76. Lo K-M, Fulda KG. Impact of predisposing, enabling, and need factors in accessing preventive medical care among U.S. children: results of the national survey of children's health. Osteopath Med Prim Care [Internet]. 2008 Dec 8 [cited 2019 Jul 26];2:12. Available from: http://www.ncbi.nlm.nih.gov/pubmed/19061524

77. Enuameh Y, Nettey OE, Mahama E, Tawiah C, Boamah E, Sulemana A, et al. Family

Planning Needs of Adolescents in Predominantly Rural Communities in the Central Part of Ghana. Open J Prev Med [Internet]. 2015 Jun 4 [cited 2019 Jul 15];05(06):269–79. Available from: http://www.scirp.org/journal/doi.aspx?DOI=10.4236/ojpm.2015.56030

78. Ghana Health Service. Police and Strategy (2016-2020). Accra; 2016.

79. Ghana Statistical Service. Domestic voilence in Ghana. Accra; 2016.

80. Michael W, Tietaa KL. Your advice, my choice: a case study of adolescents' reproductive health choices at Nadowli-Kaleo district of the Upper West region of Ghana. IOSR J Nurs Heal Sci Ver IV [Internet]. 2015 [cited 2019 Apr 14];4(5):2320–1940. Available from: www.iosrjournals.org

81. Krugu JK, Mevissen F, Münkel M, Ruiter R. Beyond love: a qualitative analysis of factors associated with teenage pregnancy among young women with pregnancy experience in Bolgatanga, Ghana. Cult Health Sex [Internet]. 2017 Mar 4 [cited 2019 Jul 15];19(3):293–307. Available from: https://www.tandfonline.com/doi/full/10.1080/13691058.2016.1216167

82. Madeni F, Horiuchi S, Iida M. Evaluation of a reproductive health awareness program for adolescence in urban Tanzania-A quasi-experimental pre-test post-test research. Reprod Health [Internet]. 2011 Dec 27 [cited 2019 Aug 8];8(1):21. Available from: http://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-8-21

83. Evelia H, Shilabukha K, Wanjiru M, Westeneng J. Reaching young people through digital platforms: findings of a study of NAYA's field programme. 2015.

84. Miller S. The Families Matter! Program [Internet]. 2014 [cited 2019 Jul 29]. Available from: https://www.cdc.gov/globalaids/publications/fmp-2-pager-final-jan-2014.pdf

85. Miller KS, Lasswell SM, Riley DB, Poulsen MN. Families matter! Presexual risk prevention intervention. Am J Public Health [Internet]. 2013 Nov [cited 2019 Jul 29];103(11):e16-20. Available from: http://www.ncbi.nlm.nih.gov/pubmed/24028229

86. Pathfinder International. Youth-Friendly Services: Botswana End of Program Evaluation Report African Youth Alliance (AYA) [Internet]. Watertown, MA; 2005 [cited 2019 Aug 8]. Available from: http://www2.pathfinder.org/site/DocServer/BT_YFS_report_FINAL.pdf

87. Williams T, Mullen S, Karim A, Posner J. Evaluation of the African Youth Alliance Program in Ghana, Tanzania, and Uganda [Internet]. 2007 [cited 2019 Aug 8]. Available from: https://pdfs.semanticscholar.org/08ec/e1739a0c76c75d9b159eab128b570ebf7b2b.pdf

88. Stone E. Gulu Youth Center (GYC) in Gulu District, Uganda. Gulu; 2012.

89. Ghana Health Service. Adolescent Health Service Policy and Strategy (2016-2020). Accra; 2016.

90. UNFPA. Making Reproductive Rights and Sexual and Reproductive Health a Reality for all [Internet]. New York; 2008 [cited 2019 May 11]. Available from: https://www.unfpa.org/sites/default/files/pub-pdf/SRH_Framework.pdf

APPENDIX

Appendix 1: Definition of reproductive and sexual health care

Reproductive and sexual health care in the context of primary health care is defined to include:

- Family planning
- Antenatal, safe delivery and post-natal care
- Prevention and appropriate treatment of infertility
- Prevention of abortion and management of the consequences of abortion
- Treatment of reproductive tract infections

- Prevention, care and treatment of STIs and HIV/ AIDS
- Information, education and counselling, as appropriate, on human sexuality and reproductive health
- Prevention and surveillance of violence against women, care for survivors of violence and other actions to eliminate traditional harmful practices, such as FGM/C
  Appropriate referrals for further diagnosis and management of the above.(21,90)

Appendix 2: The map of Ghana showing the 16 administrative regions