DETERMINANTS OF ADOLESCENT PREGNANCY IN GHANA: POLICY IMPLICATIONS

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Determinants of Adolescent Health in Ghana: Policy Implication

A thesis submitted in partial fulfilment of the requirement for the degree.

Master of Science in International Health

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Declaration:

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Signature

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Table of content

ACKNOWLEDGEMENT

ABSTRACT

LIST OF ABBREVIATIONS....III

LIST OF DEFINITIONS.... .IV

INTRODUCTION....VI

1 CHAPTER ONE: BACKGROUND 1

1.1 Culture and Religion 1

1.2 Socioeconomic Dynamics.... 1

1.3 Education and Literacy 2

1.4 Health status 2

1.5 Health System including Sexual Reproductive Health Services 3

1.6 Adolescent Pregnancy: Global Trends.... 4

1.6.1 Adolescent Pregnancy: Ghanaian Context.... 5

1.7 Past Policies and Other Interventions 6

2 CHAPTER TWO 7

2.1 Problem statement 7

2.1.1 Consequences of Adolescent Pregnancies.... 7

2.2 Justification of the Study.... 8

2.3 Objectives of the Study 8

2.3.1 General Objective.... 8

2.3.2 Specific Objectives 8

2.4 Methodology and Research Methods.... 9

2.4.1 Inclusion and Exclusion Criteria 10

2.4.2 Theoretical Framework 10

2.4.3 Analytical Approach 12

3 THREE: STUDY RESULTS/FINDINGS.... 13

3.1 Determinants of adolescent pregnancy.... 13

3.1.1 Intrapersonal Factors 13

3.2 Interpersonal Factors 17
3.3 Institutional Factors 18
3.4 COMMUNITY FACTORS 20
3.5 Policies relating to Adolescent Sexual and Reproductive Health and Rights 22
3.5.1 Adolescent Health Service Policy and Strategy (2000, Revised in 2016–2020) 22
4 CHAPTER FOUR 25
4.1 PROVEN EVIDENCE-BASED INTERVENTION(S) TO REDUCE ADOLESCENT PREGNANCY 25
5 CHAPTER FIVE: DISCUSSION OF THE RESULTS 27
5.1 Determinants of adolescent 27
5.2 Review Limitations to 30
6 CHAPTER SIX 30
6.1 Conclusion and Recommendations 30
6.1.1 Conclusion and Implications 31
REFERENCES 33
Country Profile/Demography (Ghana) 41
ANNEXE 2: Health status 44
ANNEX 3: LIST OF INTERNATIONAL CMMITMENTS AND POLICIES BY GHANA TO ADOLESCENT DEVELOPEMET 45
Annex 4, ... 47
ANNEX 5 48

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LIST OF ABBREVIATIONS

ASRH	Adolescent Sexual and Reproductive Health
ASRHR	Adolescent Sexual and Reproductive Health and Rights
AP	Adolescent pregnancy
CSE	Comprehensive Sex Education
GARHP	Ghana Adolescent Reproductive Health Policy
GDHS	Ghana Demography Health Survey
GHS	Ghana Health Service
GLSS	Ghana Living Standards Survey
GMHS	Ghana Maternal and Health Survey
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
LMIC	Low- and Middle-Income Country
MGCSP	Ministry of Gender Children and Social Protection
MOE	Ministry of Education
MOH	Ministry of Health
PHC	Population and Housing Census
SRHR	Sexual and Reproductive Health and Rights
SSA	Sub-Saharan AFRICA
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children Emergency Fund
WHO	World Health Organization

DEFINITION OF TERMS

Adolescents: Young persons who transition from childhood into adulthood, aged between 10 to 19 years(1).

Child marriage (also often referred to as early marriage): Marriages involving minors (one or both parties) under the age of 18 years. It violates human rights by denying boys and girls education, health, security, and marriage options(2,3).

Determinant: This includes the individual characteristics and behaviours, the physical environment, and the social and economic environment that affects the health of an individual adolescent pregnancy(4)

Early Sexual debut/ early sexual initiation: First sexual encounter before reaching the legal of sexual consent in Ghana, which is 16 years(5,6).

Policy: "A course or principles of action" or a statement of prescription"(7)

In union: a girl/boy married or living together with a man/woman(8).

Vulnerable jobs: Includes self-employed and domestic workers, with bad working conditions, inadequate social security(8,9).

Introduction

Sexual rights are human rights and include the rights of all individuals, free of discrimination, coercion, and violence. This right extends to adolescents as they have the right to make their own informed choices and take control over their (sexual) being. However, early sexual encounters may lead to pregnancy which may be intended or unintended. This may pose dangers and risks to the health and well-being of the adolescent girl, because they may not be physically, cognitively, and psychologically mature and ready for pregnancy. In addition, adolescent pregnancies (AP) are often linked to poorer future perspectives which makes it a public health issue which exists in all regions around the world and are particularly present in Low and Middle-Income Countries (LMIC).

Medical volunteerism is my passion as many patients appreciate the little you do for them on the field as it makes a positive impact on their lives. Many issues confront adolescents in Ghana. Nonetheless, one issue always gets me thinking when at work as a medical volunteer in Ghana: seeing a 10-year-old adolescent girl pregnant who seemed to know very little about life and looked helpless made me depressed. This girl looked fragile, and pale, and seemed to be in a state of hopelessness. Neither the child nor the mother had an idea of what seemed to be going on with the girl until our team discovered that the girl was pregnant. Sadly, this type of pregnancy is preventable at minimal costs as family planning services are available in Ghana, even at health posts. Also, in the clinical setting where I worked as a nurse, no week passed by without seeing an adolescent girl coming for treatment with the assumption of being sick but finding out she was pregnant with no other comorbidity. More of these cases are seen in the community setting where the records of pregnancy cases are kept. Therefore, while there is some reduction in AP rates in Ghana, this may not be an actual reduction in numbers.

Adolescents in Ghana are not only future leaders but also deserve special attention because of their large proportion of the population. But their present situation regarding AP is heartbreaking as most of these adolescents don't have any idea of what is happening to them and how to deal with their sexual and reproductive health and rights. The question(s) that emerges is 'Why do all these AP cases keep occurring, despite the different adolescent sexual and reproductive health interventions in Ghana? Particularly, what does the AP policy say?

Based on a literature review, this thesis aims to identify the determinants of AP and their implications for policy. Furthermore, evidence-based best practices worldwide are identified and discussed to what extent it is being applied to the Ghanaian context. The necessary recommendations are drawn based on the lessons learnt from the best practices and the literature review and aim to improve policy and interventions for adolescent pregnancy.

1 CHAPTER ONE: BACKGROUND

This chapter talks about the country profile/demography of Ghana country and other important background information related to the determinants of adolescent pregnancy. Ghana is a low- and middle-income country within Sub-Saharan Africa. It has a total population of 32.2milion with 22.4% classified as adolescents per the 2021 population and housing census(8). For more details about the demography of Ghana refer to annex one.

1.1 Culture and Religion

Ghana is a former colonial territory of Great Britain that gained independence in March 1957. The official language spoken in Ghana is British English. Ghana is a diverse community with about sixty ethnic groups and local languages. Akan is the major ethnic group in Ghana. Religion and culture have a dominant influence within the Ghanaian society. There are three main religions in Ghana, but a 2021 report says 72% of Ghanaians associate with Christianity, 17.6% with Islam and traditional religion forms 5.2% of the population. Others are Atheism, Rastafari, Buddhism, and Hinduism; the numbers are insignificant though. Traditional African belief has a significant influence in Ghana, with people believing in supreme beings, lesser gods, ancestors, and the spirit of the dead. These beliefs shape and are intimately linked to customs and family loyalties(10) even as the extended family system is upheld and practiced in Ghana.

Generally, in Ghana, societal roles are gendered with men being the primary breadwinners while women do basic home and childcare duties. However, women have engaged and extended their trading activities and prospects occasionally became quite wealthy. To overcome gender disparities and advance women's issues, a modest women's movement has emerged (11,12). Marriage as the unit of union between a man and woman for procreation is highly respected and adored by the Ghanaian culture. The 2017 Maternal Health Survey reported that 14% of women aged 15 to 49 years were in polygamous (where a man takes more than one wife) marriage. Among these, 5% are girls 15 to 19 years(13). Though marriage is prohibited for children under 18 years, significant numbers still get married. This will be elaborated further in subsequent chapters.

1.2 Socioeconomic dynamics

Ghana is a low and -middle-income country (LMIC) with a primarily agricultural economy with cocoa, gold, and timber as major export commodities. International trade accounts for one-third of the gross domestic product (GDP). These commodities generate 70% of export income. Industrial production accounts for 10% of national outputs(12) In 2014, 40.41% of the people employed were in agriculture, 16.19% were in industry and 43.39% were in service. However, in 2021 39.49% were employed in the agricultural sector, 19.13% were in the industrial sector whilst 41.38% were in service(14). The formal sector jobs are based on education and wealth with extended family support and communal rights addressing wealth disparities(14,15).

The 2021 Population and Housing Census (PHC) shows 58.1% labour force in Ghana with 50.3% employed, 7.8% unemployed and 41.9% out of the labour force. The urban and rural employment rates are 50.2% and 50.4% respectively. Over 10% of the labour force work in the public sector, and 60% are

males. Skilled trade takes 75% of the labour force, with a higher 81.3% women and 68.9% men. Skilled trade includes agriculture, forestry, and fisheries (32.0%), service and sales (26.5%), and craft and related trades (16.1%) (8). The Word Bank estimates that Ghana's GDP growth rate dropped from 5.4% in 2021 to 3.2% in 2022(8,16).

1.3 Education and Literacy

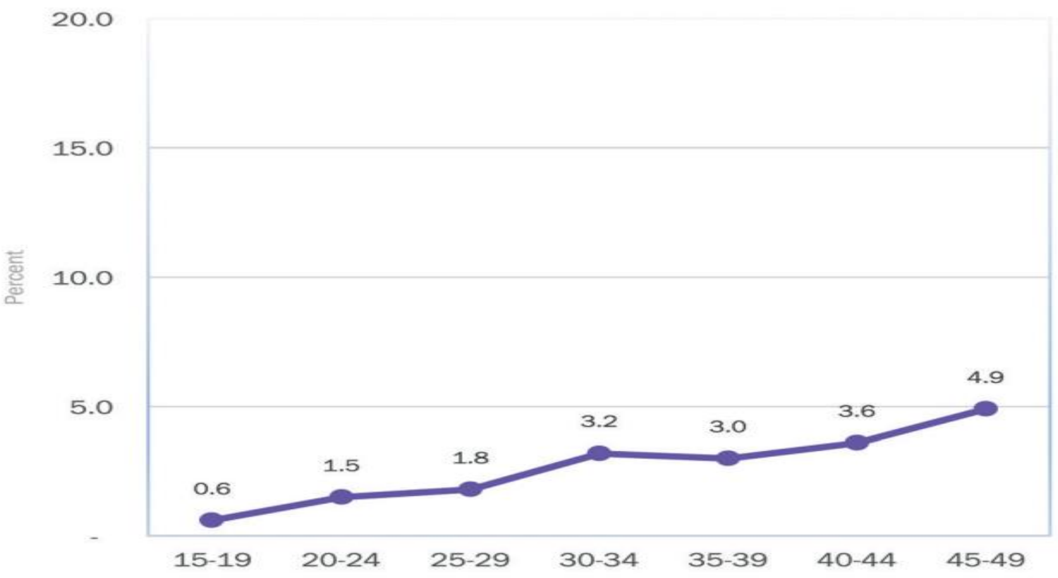
Education is crucial for socioeconomic development. Initiatives like the Free and Compulsory Universal Basic Education (FCUBE), implemented in 1995, and the Education Strategic Plan (ESP) 2018–2030 are policy measures aiming to increase literacy rates and provide inclusive, equitable and quality education for all Ghanaian children(17).

The Demographic Health Survey (DHS,2014) shows that 60% of women and 77% of men aged 15 to 49 have completed secondary education, while 9% of men and 19% of women lack any form of education. This improvement is significant compared to 1993 when the figures were 22% for men and 35% for women(18). The Free Senior High School program launched in September 2017 increased enrolment by 11%, setting a record for the 2017/2018 academic year(17,19). There are not many differences in the overall education rates for males and females in Ghana, except between rural and urban settings. For example, the 2021 PHC reported a 69.8% literacy rate among the 6 years and older population. Among these, 74.1% are males and 65.6% for females. Also in urban regions, 54.3% of people over 15 years who have graduated from junior or senior high school (JHS/JSS) are females compared to 45.7% of men. Also, 50.5% of females and 49.4% of males are in rural areas(20). Adolescents from 15-19 years and actively enrolled in school have a 100% lower likelihood of being illiterate. Children with at least one educated parent are 43.5% less likely to be illiterate than children with caregivers who are not educated (did the research state till what level?). Urban residents are 43.2% less likely to be illiterate than rural residents, but the chances favour kids more than adults(21).

1.4 Health status

The health status of the general population is stated under annex two. Specifically, the 2017 Ghana Maternal Health Survey (GMHS) revealed that 14% of women aged 15 to 19 years were new mothers or expecting their first child(13). The 2016 Ghana domestic violence report from GSS stated that 28% of Ghanaian women reported experiencing domestic violence in 2015. Economic violence was the most common type, occurring at a rate of 12.6%, while sexual violence was the least common at 2.5%. Reproductive tract malignancies are not adequately documented (22). Less than one in 1,000 girls under the age of 14 in Ghana undergo female genital mutilation/ cutting (FGM/C), despite it being outlawed. The practice is only prevalent among minority populations, primarily in the Upper West Region. It can be deduced from Figure 2 below that FGM/C increases with age(1,23).

Figure 2. Trends of FGM/C of women 15 to 49 years.



Source: GSS, (MCIS 2017/2018) (26)

Per the Ghana Abortion Law and the policy statement that guides the provision of abortion services, the Ghana Health Service offers safe abortion and post-abortion care services in its facilities. Despite this regulatory climate and expanding access to abortion care services, abortion-related factors account for 9% of maternal fatalities. In Ghana, the estimated HIV prevalence among women is 2.3% between the ages of 15 and 49. Antiretroviral medication is administered to 79% of HIV-positive pregnant women to avoid mother-to-child transmission (5,21,30,31).

1.5 Health System including Sexual Reproductive Health Services

The healthcare system in Ghana is divided into three levels: national, regional, and district, with five levels of providers. Health posts also called the CHPS (Community Health Planning Services) compound, health centres and clinics, district hospitals, regional hospitals, and tertiary hospitals. CHPS facilities are more dispersed across the nation. Hospitals, clinics, and maternity homes are more in the south. In 2019, the public sector spending on health in Ghana was equivalent to 1.38 % of GDP. In 2014, Ghana fell below the WHO recommendation of 25 healthcare professionals (physicians, nurses, and midwives) per 10000 population, which is deemed sufficient to address the healthcare needs of the given population. However, due to the growing number of nurses, it compensated for the number of healthcare professionals to reach the required WHO recommendation. The physician density from 2020 was still only 2 per 10 000 inhabitants, despite a small increase from 1.4 from previous years and still far below the 15 per 10 000 population global average. This sets Ghana among the 26% of countries with less than 3 physicians per 10 000 population according to the WHO. Unlike the physician density, the nurse and midwife density has not been stable. It grew from 1.4 per 10 000 in 2014 to 2.3 in 2017, 4.6 in 2018 and 3.6 in 2020(24,25)

Ghana has a National Health Policy to guide its health service delivery that was updated in January 2020. The policy aims to advance UHC (Universal Health Coverage) and multisectoral action while including

pertinent parties and giving local communities the capacity to improve Primary Health Care (PHC) and reduce risk factors through the Health in ALL Policy (HiAP) approach(26). UNFPA 2021 Ghana annual report states that 68.6% of the population is covered by the National Health Insurance Scheme (NHIS) and/or private health insurance programs, with females having a greater coverage rate (72.6%) than males (64.5%).

Ghana's total fertility rate is high standing at 3.9. This may imply that 30% of women currently married still lack access to family planning services. However, the country's prevalence of contraception has been rising significantly in recent years (13,25). This was captured in 2017 Ghana Maternal Health Survey noting that 31% of married women were currently using some form of contraception, which 25% were women using modern techniques, Injectables (8%), implants (7%), and the (4%), as three most popular techniques used. The equivalent of 38% and 31% respectively among sexually active single women. An UNFPA 2021 country report indicated; 'Ghana currently still has a large unmet need for family planning among married women (30%) and teenagers aged 15 to 19 (51%). With the use of modern contraceptives among married women ranging from a low of 17% in the Northern region to a high of 32% in the Upper East region. This disparities in contraceptive use continue to be alarming and contribute to unintended pregnancies among women and in particular adolescents (27). Further 79% of Ghanaian women deliver their babies with the assistance of a trained birth attendant, and 89% of them visit the doctor at least four times a year while pregnant. Also, it is found that within two days of birth, 84% of mothers and 81% of newborn babies receive postnatal care. The overall national caesarean section rate is 16% and Postpartum haemorrhage is the main cause of maternal death (38%)(22,28).

1.6 Adolescent Pregnancy: Global Trends

According to UNFPA (2013), globally adolescent pregnancy (AP) was expected to go up by 2030 with high concentrations in Sub-Saharan Africa (SSA)(29). A lot of progress has been made to drastically reduce AP and childbearing. However, success in lowering AP has been uneven and delayed in countries mostly among the vulnerable groups with low levels of education and/ or economic status in Sub Sahara Africa(30,31). Again, enough information exists at all levels (global, regional, national) in terms of high commitment (efforts and actions) to prevent and reduce AP and childbearing. There is a yearly estimation of 21 million girls aged 15-19 years in low- and middle-income countries (LMIC) who become pregnant, 2.5 million under 15 years, and 12 million of them give birth. However, 50% of these pregnancies are unintended, and 55% of the unintended end in mostly unsafe abortions. The largest number of estimated births to 15-19 years old in 2021 occurred in SSA (6,114,000 girls), and far fewer births occurred in central Asia (68,000 girls). The corresponding number was 332,000 among adolescents aged 10-14 years in sub-Saharan Africa, compared to 22,000 in South Asia in the same year(31–33).

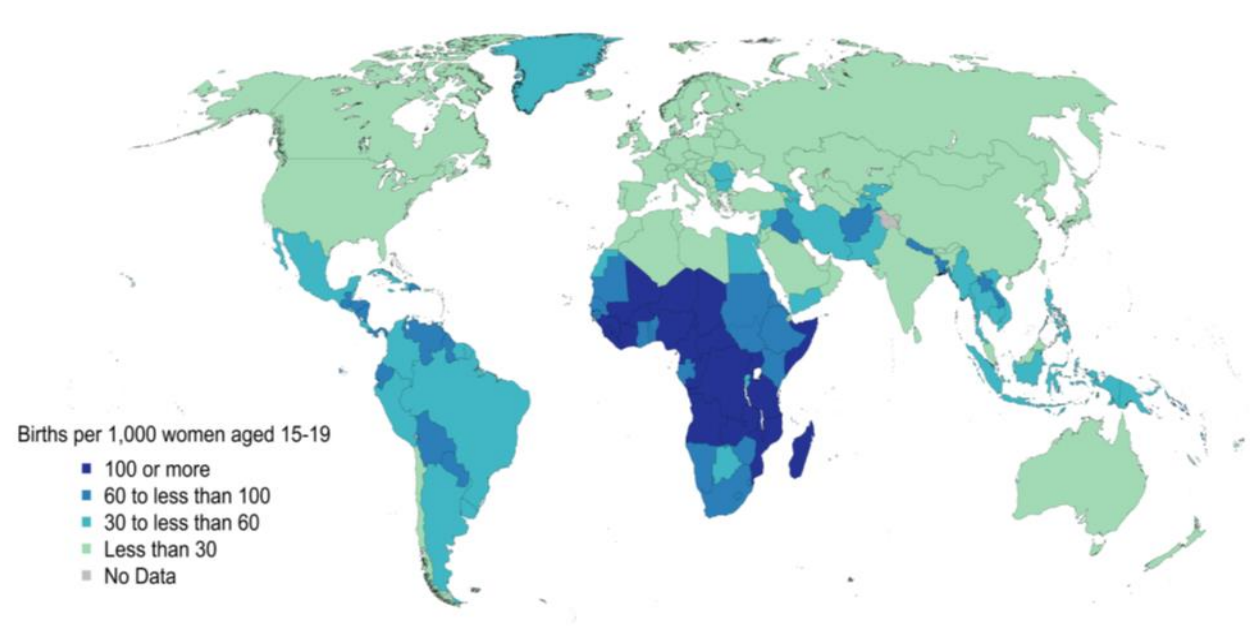
This notwithstanding, it is worth noting that the global adolescent fertility rate has reduced by more than half since 1960 from 86 births per 1,000 adolescents to 47.9 in 2010, 42 in 2019 and a further 41.2 per 1,000 births in 2020(20,22,24). Even though the global adolescent fertility rate is reduced, the adolescent fertility rate in Sub-Saharan Africa stays the highest of all the regions in the world. An average of 110 births per 1000 girls is more than twice as high as the global average of 41 births per 1,000 adolescents 15-19 years (25). Within Sub-Saharan Africa, there are significant differences across countries. In 1960, adolescent fertility ranged from 55 births per 1,000 adolescents in Somalia to 232 in

Cote d'Ivoire. But by 2019, this range had shifted. The lowest adolescent fertility in the region was 24 births per 1,000 adolescents in Mauritius, and the highest was 180 per 1000 births in Niger (20)

1.6.1 Adolescent Pregnancy: Ghanaian Context

Ghana still faces a high rate of AP despite international declarations and policies regarding ASRH. Authorities including ministers of gender, children, and social protection and the UNFPA call on other stakeholders for a strategic guide to eliminate AP, address the implications of HIV transmission and the achievement of the sustainable development goal 3 (SDG 3)(34,35). The 2022 Population Prospects stated that AP rates in Ghana are between 60 and 100 per 1000 women aged 15 to 19 years (Figure 3) which is the second highest category (36).

Figure 3. Adolescent birthrates per country, 2021



Source: World Population Prospects, 2022(36)

Ghana's Reproductive, Maternal, Newborn, Child, and Adolescent Health and Nutrition strategic plan for 2020 to 2025, also states that AP is still going through challenges in achieving elimination(22). The Ghana Demographic and Health Survey (GDHS, 2014) and the 2017 maternal health surveys analysed that AP were about 14% of total pregnancies in Ghana since 1998, went up to 15% in 2007 but dropped back to 14% over subsequent years. These were adolescents aged 15–19 years. No data was recorded for adolescents between 10 to 14 years because they do not fall within the reproductive age bracket which was the sample criteria(37,38). The regional variations are also shown in Figure 4.

It is also documented that AP increases with age (32% in 19year old girls) There are 18% AP in rural communities compared to 11% in urban communities. For example, in the western region where education and the economy rise, AP rates decline(13,18). According to the Ghana Health Service (GHS), even though there was a drop in the number of AP cases recorded in 2020(11.7% drop from 2019), this is still considered high given the consequences and burden of care to the nation(1,39–41).

Segregated data points out that within five years (2016 to 2020), 13,444 teenagers between the ages of 10 and 14 years got pregnant, while some 542,131 teenagers aged 15 to 19 years got pregnant making 555,575 AP cases. The data concluded that on average, a little over 112,800 teenagers get pregnant annually. The worrying part is the increasing rates among the 10 to 14-year groups as illustrated in Table four (refer to annexe) are mostly physically immature to keep a healthy pregnancy and more susceptible to pregnancy-related complications(34,42,43).

As of 2018, Ghana has an adolescent birth rate of 78 births per 1000 adolescent girls (10 to 19 years)(44). A particularly notable issue is the adolescent fertility rate in Ghana declining from 148 per 1000 adolescent girls to 78 in 2018 and 68 per 1000 girls in 2019. The table below (table 5) shows the age-specific fertility rates of adolescents in Ghana from 2014 to 2021(39,44–46).

Table 5: Age-specific fertility rates of adolescents in Ghana from 2014 to 2021(45)

AGE GROUP(YRS)	YEAR							
	2014	2015	2016	2017	2018	2019	2020	2021
10-14	3.01	3.12	3.01	2.84	2.97	2.92	2.83	2.81
15-19	69.13	70.00	68.05	65.90	67.23	66.58	65.15	64.18

Even though the fertility rate is on the decline, it is higher and far above the global average of 41 births per 1000(28,36,39,46–48). The question that arises here is: Why is the adolescent fertility rate still high in Ghana compared to the global average rates?

1.7 Past Policies and Other Interventions

Ghana has continued to promote ASRHR whilst addressing adolescent needs through institutional activities. As a member of the United Nations, Ghana has ratified almost all international agreements to inform, safeguard and advance efforts to improve ASRHR. The well-being, growth, and quality of life of adolescents in the country are to be enhanced by these protocols. Among these are the 1989 United Nations Convention on the Rights of the Child(UNCR) and others which are listed and elaborated in annex three.

2 CHAPTER TWO

2.1 Problem statement

Although progress is being made in reducing adolescent pregnancies on a global scale, there are still challenges that many countries face. One of these countries is Ghana. While there is a policy in place that guides adolescent health including sexual and reproductive health in Ghana, and many interventions are ongoing, adolescent pregnancy rates are not reducing at the expected rate.

In Ghana, the average age of sexual debut is 16 years(boys/girls)(38). Crooks et. al. (2022) in their research on adolescent experiences of pregnancy in low- and middle-income countries stated that, due to lack of power, choice, and option to negotiate sex, compared to their peers, adolescents who are poor, rural, and less educated are likely to become pregnant. Others are sex education, ignorance, child marriage, peer pressure, chemical misuse, parental status, and religious and cultural beliefs, and values. Gender power imbalances may lead to coercion and contractual sex(49)

There are 50.7% of adolescents 15 to 19 years married or in a union with unmet needs of contraception and 60.5% of unmet needs of contraception among the same age group not in any union. There are also differences between urban and rural adolescents, in the use of contraception which will also be elaborated on in later chapters(50). Also, in adolescent girls between the ages of 10 and 14 years, 97% of them are in school, but for girls between the ages of 15 and 19 years, it drops to 68%, which can be a major determinant and consequence of AP(51). The lack of knowledge on pregnancy prevention, myths about the harm of contraception, poor health workers' attitudes towards adolescents who seek sexual and reproductive health services, fear of the social stigma associated with premarital sex and being viewed as promiscuous or dishonest to their partners are some of the determinants of low usage of contraception among adolescents(49,52). Ghana also made progress in decreasing rates of child marriage and keeping girls including pregnant adolescents in school pregnant and making available and felling over counter-modern contraceptives.

Ghana has a long history of some form of informal and formal sex education over the years. However, the current introduction of comprehensive sex education in the school curriculum received some mixed reactions. Comprehensive Sexual and Reproductive Health Education was therefore adopted instead of Comprehensive Sex Education in the guidelines. These are all possible contributing factors to decreasing adolescent pregnancies (38,46,53). The media in Ghana may be a factor that may be contributing to promoting or hindering adolescent pregnancy in the country. For example, more than half of adolescents have access to at least one form of media like the radio, television, and internet(50)

2.1.1 Consequences of Adolescent Pregnancies

Pregnant adolescents may experience a higher risk of pregnancy outcomes and related complications than adults. Complications related to AP and childbirth are the leading cause of death among adolescent girls, 15-19 years. Other complications may include preterm delivery, pregnancy-induced hypertension, anaemia, urinary tract infection, postpartum haemorrhage and low birth weight compared to other age groups as well as a higher incidence level of stillbirth. Other consequences like intergenerational poverty in the family passed on from generation to generation, may limit the girl's educational accomplishment and job opportunities as they are more likely to become school dropouts because of the stigma, even

though they are protected by law to stay in school when pregnant. This may add up to reduce their social and economic prospects, restrict their vocational opportunities, and increase the chances of divorce or separation experiences(1,54–57).

The psychosocial effects of AP can be grave leading to stigma, discrimination, denial by family or community members and encounter intimate partner violence. All this predisposes them to mental health issues, including suicide (as well as suicide ideations) and homicide(58–61) Again, AP can have a negative consequence on the country's social structures and economic development. The government faces significant costs in responding to AP cases. In line with meeting international obligations, Ghana has made slow progress in reducing AP rates over the years. This raises serious concerns among community and national leaders as well as international partners (1,35,48,62).

2.2 Justification of the Study

In Ghana, AP rates are still high, even though there is a national policy and other institutional initiatives are being implemented by the Ghana Government, other State agencies, and stakeholders engaged to protect and promote adolescent (15-19 years) reproductive health (31,63). Although there was a slight reduction from 11.8% of all registered pregnant women in Ghana in 2016 to 11.2% in 2020, this reduction however, may not be a real reduction in the number of adolescent pregnancies as most pregnant adolescents are missed because they may never attend and/ or not have access to a health facility. According to the 2017 Ghana Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (RMNCAH&N) survey, completeness of adolescent health data is still a challenge in Ghana(13). Therefore, this thesis aims to explore and analyse the determinants of AP in Ghana to make recommendations for future policies and intervention. Synthesizing the existing literature and understanding the determinant in more depth will help to come up with recommendations for policies and programmes and eventually contribute to reduce AP.

2.3 Objectives of the Study

2.3.1 General Objective

The general objective of this study is to investigate the key determinants of AP in Ghana to improve policy and programmes. A better understanding of AP determinants could help in reformulating ASRHR policy by policymakers in Ghana.

2.3.2 Specific Objectives

The underlisted specific objectives ae developed to guide the information-gathering process and structure the process of discussion of the findings.

1. To explore and analyse the determinants of adolescent pregnancies in Ghana.
2. To identify and discuss existing policies in Ghana concerning adolescent pregnancy.
3. To identify and examine an existing evidence-based adolescent sexual and reproductive health and rights policy or program intervention that has been implemented to help minimize adolescent pregnancy cases.
4. To provide recommendations to improve adolescent sexual reproductive health and rights in Ghana.

2.4 Methodology and Research Methods

This study is a literature review, employing and engaging an analysis of the available literature on adolescent sexual and reproductive health and rights and related policies in Ghana, Africa and globally. This choice of methodology is to gather information for discussion, thereby effectively answering the research question and realizing the study's main and specific objectives.

Searches were conducted using a variety of search engines, including PubMed, Google Scholar, Google, and Scopus to find the pertinent literature on the topic. The websites of the Ghana Health Service, Ghana Statistical Service, the Ministry of Health, the Ministry of Gender, Children and Social Protection in Ghana, WHO, UNICEF, UNESCO, and UNFPA, were used as additional sources of information.

Adolescent pregnancy, teen pregnancy, early childbearing, teenage pregnancy, Ghana, Sub-Saharan Africa, adolescents, youth, young adults, and determinants, socioeconomic determinants, and inequalities were among the terms used and combinations of the terms employed and searched. See Table 6 below showing the terms employed and searched.

Table 6: Search Terms

Source		**Factors**		**Issues**		**Context**
Reference Libraries: 1. Vrije University (VU) library 2. PubMed 3. Google Scholar 4. Cochrane		Determinant* Causes		Adolescent Pregnan*		Low- and Middle- income Countries
		Intrapersonal determinants; age, marital duration, parity, ethnicity, religion, contraception, past pregnancy history, knowledge, attitude, values, skills, behaviour, beliefs		Early childbearing		Sub Saharan Africa Africa
Organisational Websites: 1. WHOZ 2. UNICEF 3. UNFPA 4. Ghana Statistical Service 5. Ministry of Health 6. Ministry of Education	O R	Interpersonal determinants, family background, parental education, single parent family, family planning education, Partner; education, occupation, race, Partner intentions, partner attitude, and couple agreement. Parenthood, social support, neighbours,	A N D	Teenage pregnancy Teen pregnancy Pregnancy in minors	A N D	Ghana
		Institutional determinants: family planning clinics, quality contraceptive services, school sex education, religious institutions, cost of contraceptives and preferences in contraception		Pregnant young girls Prenatal teen		

7. Ministry of Gender Children and Social Protection		Community determinants; community characteristics, norms, location(urban/rural), religiosity, region, socioeconomic factors, liberality, women's labour force participation, types/kind of work, unemployment, gender preferences, equality, and equity, schools		Pregnant young adults		
		Public policy; political history/atmosphere, media available, health insurance, history of legislation, contraceptive coverage regulations Strategy Health policy Sexual and Reproductive health policy Adolescent health policy Adolescent Sexual and reproductive health policy				

2.4.1 Inclusion and Exclusion Criteria

Only peer-reviewed articles written in English and published in 2013 and after, relevant to the study objectives were selected. This was to allow ten years as most policy documents used for these articles are reviewed in five to ten-year periods. Additionally, highly relevant country policy documents written in English and published before 2013 were analysed. Articles that were merely abstracts with no available complete texts were excluded. These requirements were applied to all the literature found and any that did not meet the above requirement was excluded.

2.4.2 Theoretical Framework

Two framework, social determinants and policy analysis framework were considered. While the social determinants framework is strong to guide the study of determinants only, the public policy framework is solely focus on policy analysis. This notwithstanding, this thesis employed the socio-ecological framework of health (figure 4 below.) developed Ainat Koren based on the general socioecological model for health promotion in 1970 by McLeroy to provide a theoretical lens to view the phenomenon under study and guide the information gathering process to realize the research objectives. As the name suggest, the socio-ecological of health framework involves joining two concepts to become one concept offering a broader and wider lens to view the scope of data and guide the data analysis of the determinants whilst at the same breath covering the policy issues of adolescent sexual reproductive health and rights in Ghana. This means that the socioecological framework is not only holistic, but also comprehensive, possessing scope, depth, and breadth to view and guide the gathering of data to explain both the determinants and the policy of AP thereby enabling the realization of all the four objectives of this thesis. Rather than employing two separate theories or frameworks to guide the study. The socio-ecological framework is one framework with the depth and breadth offering a holistic approach to guide

and analyse the data on determinants and policy issues of adolescent pregnancy. The socio-ecological framework consists of five levels of analysis, comprising the following:

Level 1.- The first is the intrapersonal or individual level. This level consists of biological and personal characteristics like age, income, education, and parity.

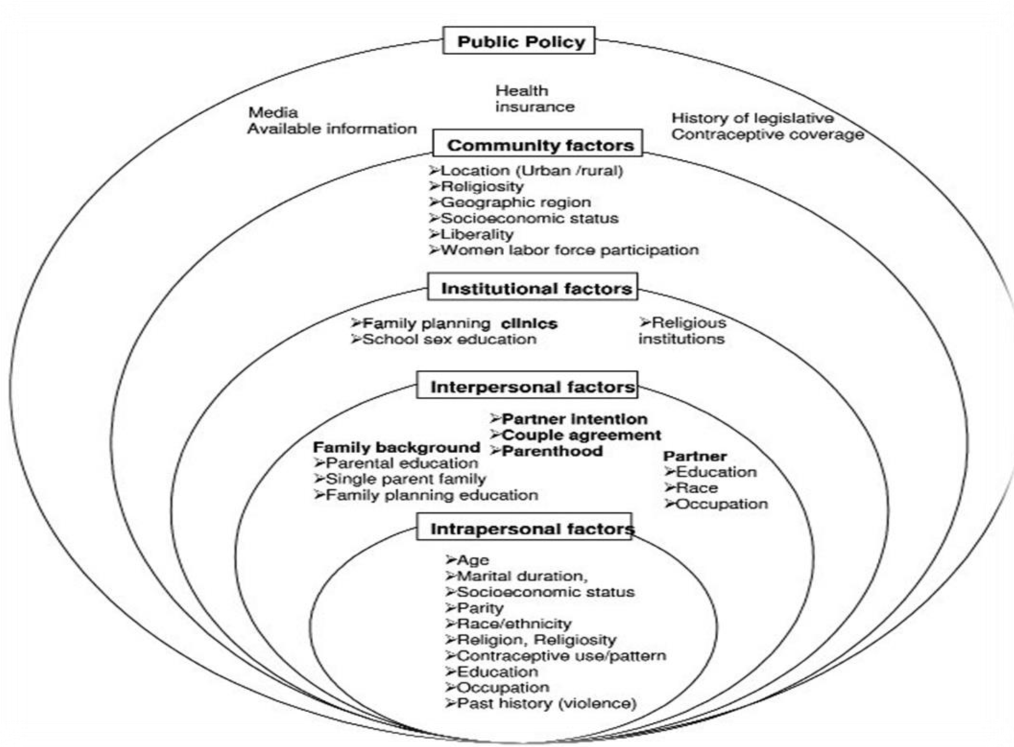
Level 2. -This is followed by the interpersonal or relationship level which talks about a person's immediate social circles. This is about partners, friends, and family members which influence the behaviours and experiences.

Level 3: - The third level is the organisational level and includes rules, regulations and informal structures that may influence adolescent pregnancy like school-based education, post-abortion care, family planning services, and media influence.

Level 4: - The community level elaborates on the characteristics of the settings of social relations like schools, workplaces, and neighbourhoods. The framework looks at broad societal factors like cultural and societal norms, health inequalities and inequities among groups in the community.

Level 5: - The public policy level is made up of the policy, regulatory agencies, and important legislation on ASRH and services.

Figure 4: Socio-ecological model for determinants of adolescent pregnancy.



Source: Figure developed be Ainat Koren based on the general socioecological model for health promotion by McLeroy et. Al. (1988)(64)

2.4.3 Analytical Approach

The approach used for collating, summarizing, and reporting on the study results is presented here. A content analysis approach developed was adopted and applied to analyse the determinants guided by the theoretical model. The literature was reviewed, and the information found in the existing literature was organized, categorized, and discussed based on themes or theoretical concepts. This was also based on the research topic and in line with the study objectives. Meanings were drawn on the emerging themes in the literature and interpreted to answer the research questions.

3 THREE: STUDY RESULTS/FINDINGS

The key determinants of adolescent pregnancy (AP) relevant to policy (development, formulation, and implementation) in Ghana based on the five key levels of the socio-ecological model (Figure 3 above) are presented in this chapter. More importantly, employing the combination of the five key levels as a lens to view the phenomenon under review showed the complexity and interplay of intrapersonal, interpersonal, institutional and community factors as well as the public policies interacting to influence the incidence of adolescent pregnancy in Ghana.

3.1 Determinants of adolescent pregnancy

3.1.1 Intrapersonal Factors

The socio-ecological framework highlights the individual factors influencing AP including age, marital duration, socioeconomic status (education, and occupation), parity, contraception, ethnicity, and past pregnancy history.

Age

The legal age of sexual consent in Ghana is 16 years. Any sexual activity before this legal age is considered criminal under the Criminal Offences Act 1960 (Act 29, section 101 on sexual and gender-based violence). A cross-sectional study by Alhassan et al. (2021) which used the 2017/2018 MICS data, indicated that early sexual debut is linked to negative sexual and reproductive problems like adolescent pregnancy and sexually transmitted infections(6). In 2017, the Guttmacher Institute published that across Ghana, 5% of men and 11% of women aged 15 to 24 have had sex by the age of 15. However, in their study, 27% of males and 23% of females (mainly 15–17 years old) reported having had intercourse at the time of the survey(65). UNICEF 2021 statistical snapshot on protecting and empowering adolescent girls in Ghana stated that one in ten adolescent girls (10%) had sex before the age of 15, compared to one in fourteen adolescent boys (7%). Yet only a small percentage of these girls got their contraceptive requirements (66). The authors again stated that women in the Greater Accra region are 33% less likely than Upper West region women to make their first sexual advances early, and urban women are 15% less than rural women to engage in early sexual debut(6). Johnson (2022) affirmed that 26.7% of women (15 to 49 years) had early sexual debut using data from the 2017 GMHS. Hotspots were found in areas along Volta Lake. Also, 27% of women who are not in a union and 32.5% of cohabiting women reported making their first sexual encounter before age 16 (75). Krugu et. al., (2017) disclosed the average age of sexual debut among the 20 adolescents (14-19 years) interviewed for the study at Bolgatanga 15 years(67). Several interesting reports against the backdrop of the Ghanaian finding is showing significant increases in AP rates among older adolescents (15 to 19 years).

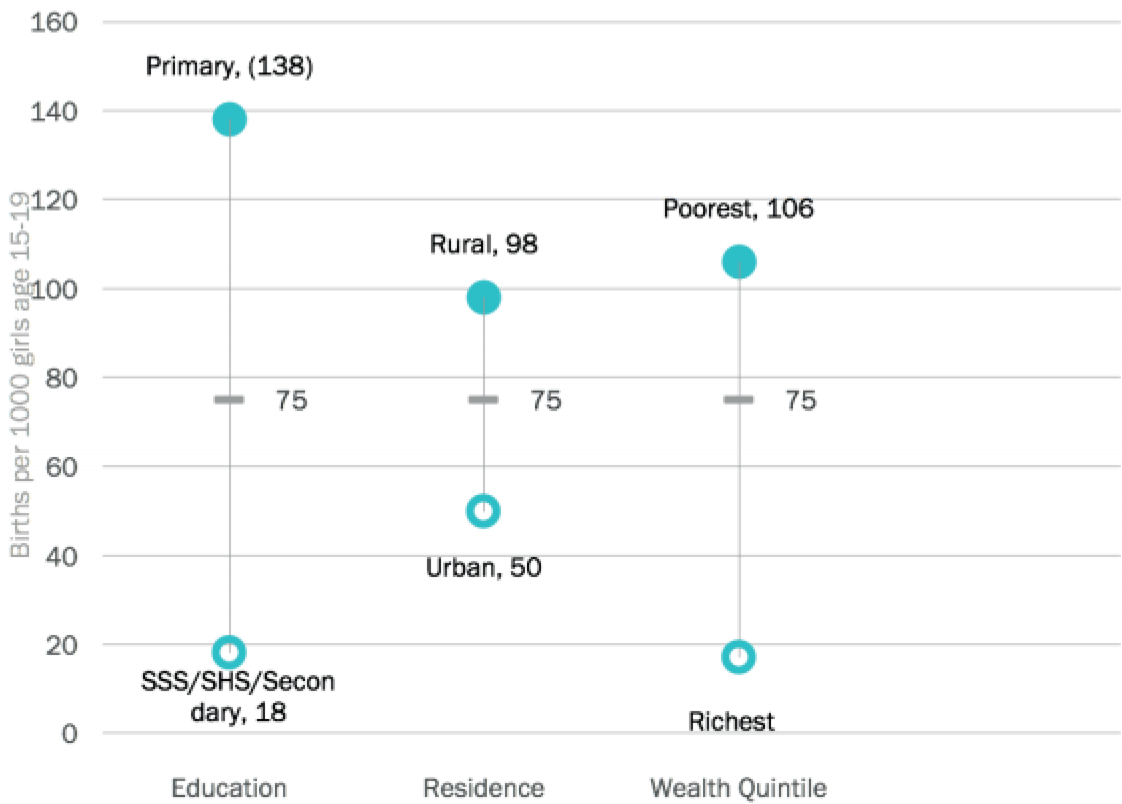
Socioeconomic status (including education, and occupation)

Nyarko et al (2021), stated that adolescent pregnancy and fertility have been linked to socioeconomic factors such as home wealth status, employment history, and working status using data from the 2003,2008 and 2014 DHS reports. Also, higher adolescent fertility risks are associated with poor-household-raised female adolescents and employed adolescents (68). Alhassan et. al., (2021) added that young adults from less affluent households think they have fewer possibilities in life and might lack the will to pursue education, employment, and leisure activities compared to those living in cities(6). Amadu

et. al., (2022) wrote that low-income families place unnecessary pressure on their children to marry or get into sexual relationships in exchange for material or financial benefits (60).

Both GSS (2022) and 2021 PHC studies established that household socioeconomic makeup can lead to poor decisions for girls' well-being like restricting them from attending school, forcing early marriages, and involving them in risky economic activities. About 50.7% of females between the ages of 15 and 17 who are working are employees in vulnerable jobs contributing to family incomes. Girls enrolled in school are 90.0% less likely to be employed and 74.5% less likely to be in a union. Also, girls in rural areas are 76.6% more likely not to be in school, 39.4% more likely to be working, and 23.3% more likely to be in a union(21). School attendance correlates with early marriage and economic activity because it shields girls from detrimental practices such as AP and child marriage. Ayamolo (2020) states that a lack of education leads to poor knowledge of reproductive health(69). In line with this, 2017/2018 MCIS established that adolescent birthrates reduce with increasing education (138 births per 1000 girls aged between 15 to 19 years in primary school, against 18 in senior high school, rural (98) against urban (50) and poorest (106) against the richest(23)

Figure 5: Birthrate among adolescents (15-19 years) from the 2017/2018 GMICS(23)



Sources: GSS, 2019

Parity

Also, Johnson's (2022) study of geographical hotspot of sexual debut stated that women who start having sex before reaching the legal age are more likely to have had more children (mean = 3.2) than those who start having sex after reaching legal age (mean = 2.4)(5). GSS 2017 and MHS reported that the

age at which a woman starts having children is just one of many variables that affect how many children she has. Extending the time between pregnancies has also been linked to lower fertility levels(13).

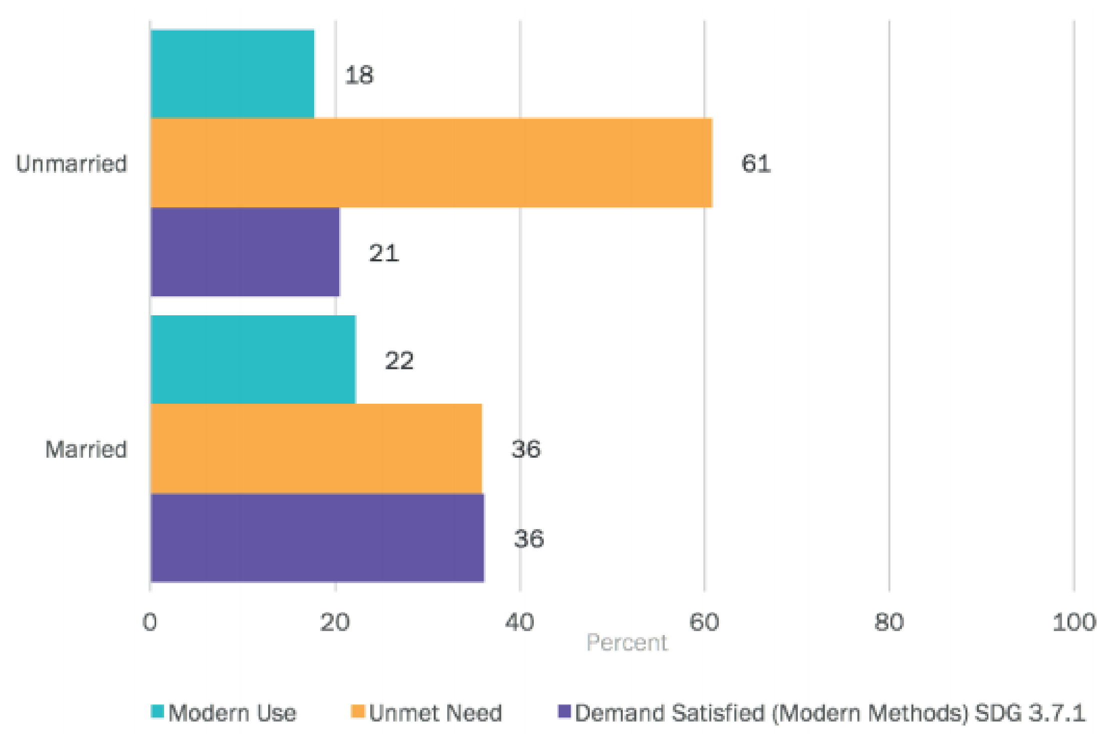
UNFPA study of "Motherhood in Childhood" reported that adolescent mothers often have more children, with an average of 2.2 births before they reach age 20. Between 15 and 17 years, an average of 1.5 births occurs. Three-quarters of females with their first child by age 14 have a second child, and 40% of those with two children go on to have a third child before they finish adolescence. Over half of girls with a first child between 15 and 17 will have a second child, and 11% of those with two children will have a third. This information adds up to make adolescent births higher, with 50% of girls aged 17 or younger and 8% aged 14 or younger. With a one in five chance of delivering another child within two years, this low birth rate poses health risks. It was noted that 'the issue is not just about whether an adolescent birth occurs or not but rather if, when and how many births occur to an adolescent mother' (29).

Contraceptive Knowledge and Use

Modern contraception for 15 to 19 years could reduce unintended pregnancies by 6 million annually, preventing 2.1 million unplanned births, 3.2 million abortions and 5600 maternal deaths(70). The 2017/2018 GMIC study (Figure 6) noted that adolescents who are not married have the greatest unmet need for family planning (61%). Married adolescents however use modern family planning techniques more frequently (36%) than adolescents who are not married (21%)(23). The 2017 MHS indicated that 80% of women aged 15 to 49 years who are non-users of family planning know the source of family planning. This is a lot but only 6.9% of adolescents aged 15 to 19 who are currently married and using modern contraception have access to these methods (13). UNICEF (2019) summarized data on Ghanaian adolescents from MICS 2017/2018, MHS 2007 and 2017, Domestic Violence Survey 2016 and Ghana Living Standards Survey, 2016 to 2017, indicated that the unmet needs of adolescents 15 to 19 years not in union are high (22.2%) compared with 17.8% among adolescents (15 to 19 years) in union(1,56).

According to Akrugu et al (2017), most young women were aware of condoms before becoming pregnant and believed they could protect against both pregnancy and infections. Although most young women may not share the same opinions about using condoms as others prefer injectable contraception or think it lessens sexual sensations. Others are concerned that family planning may cause infertility and refrain from adopting methods out of fear of partner rejection. Also, adolescent women feel embarrassed about purchasing condoms and believe boys should have access to them for safe intercourse. They do not show responsibility for using condoms and often avoid discussing sex with their partners (77). Ayamolowo (2020), Der et. al. (2021) and other studies have stated the negative influence of adolescent decision-making, the ability to refuse or negotiate for sex on unplanned pregnancies(69,71). UNICEF (2019) wrote that the biggest impediment to adolescent girls in Ghana having an equal chance in life is the violation of their SRHR including sexual coercion and violence, early marriage, and pregnancy(1)

Figure 6: Modern contraceptive use, unmet needs and demand satisfied for modern contraception among adolescents (15 to 19 years)

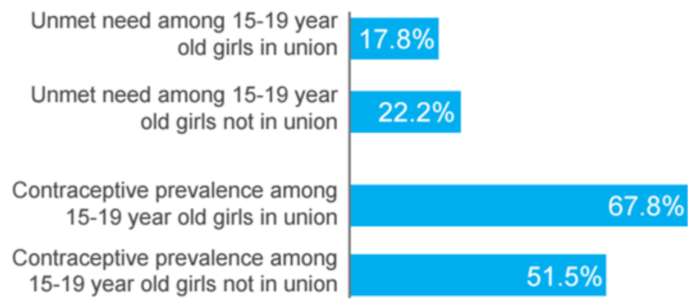


Source: GSS, 2019

Figure 7:

Contraceptive Prevalence and Unmet Need

Source: UNFPA (2016). Situational analysis of adolescent girls and young women in Ghana



Source: UNICEF (2019).

Race/Ethnicity and Culture

The practice of puberty rites (‘dipo and bragro’) performed soon after menarche, and early marriages in some cultures in Ghana are still debated. In Ghana, the Krobo, Dangle and Shai-Osudorku people perform’ dipo’, and the Ashanti people perform ‘bragro’ to initiate their adolescent girls. These two traditional initiation procedures for girls entering puberty have been preserved over the years. It is performed by community leaders to check whether the girl is a virgin before she qualifies. The ceremony

is performed after her menarche. The spiritual phase is performed first followed by the physical phase made of a public durbar and celebration, welcoming the girls into womanhood. Although the Ada, Ningo, Krobo, and Shai tribes of the Dangbe (located in the south-eastern region of Greater Accra) practise 'dipo' in diverse ways, they all recognize its importance to keep the girl's virginity entering womanhood(72). Kutufam (2020) argued that the puberty rite in Ghana faces controversies due to modern Christianity, secular, and social trends. In addition to serving as a transitional ritual, the puberty rite is an effective to stop premarital sex and sexual promiscuity among adolescents until they reach womanhood. One of the main principles of the rite is that one must be a virgin. Failure to pass this virginity test is regarded as a serious taboo and is grounds for expulsion from the tribe. On the other hand, the puberty rite has faced criticism from Christian religious views, and secular and social awareness of women's rights advocates. Even though this customary practice could have contributed to lower the high AP in some local communities, thereby contributing to reducing the overall high rates of AP in the broader Ghanaian society, nonetheless Christians (constituting 73% of population) view it as immoral and fetish. This has led to the dearth of the traditional practice as families are generally discouraged participating in this customary practice. Also, given that these girls are paraded through their communities nearly naked, modern Ghanaian society is against conducting the puberty rite. The public seeing the participating candidates' almost naked bodies as an archaic and outmoded customary practice that openly humiliates young females and invites derision from their male counterparts(72).

A statistical snapshot on protecting and empowering adolescents by UNICEF (2021) stated that the Ghanaian adolescent girl is overburdened with household chores due to gender discriminatory norms, making them more vulnerable to drop out of school, early pregnancy(57).

Past Pregnancy History

Kotoh et al (2022) established that a teenage girl who just participated in an adult literacy programme had little bearing on her previous pregnancies but may help in preventing future pregnancy. Similarly, a previous pregnancy may have encouraged and influenced the girl to enrol in the programme to stop further pregnancies(73).

3.2 Interpersonal Factors

Social networks, social support, families, and peers are all included at the interpersonal level. Under this level, findings related to the family background including education, family planning, single-parent family, partner education, occupation, race, couple, and agreement were examined.

Family background: Parental education, including family planning.

Adolescent pregnancy is a global problem, especially in families with low socioeconomic status, and is influenced by a lack of access to contemporary contraception techniques. Families' socioeconomic features can influence children's welfare choices, such as early marriage or school attendance. The 2021 PHC discovered that girls who have a household head with some educations are less likely not to be in school, working, or be in a union, as compared to girls living in homes where the head has no or only pre-primary education(21). According to Amoadu et. al. (2022), families with strict family norms have the highest AP rates (79.2%), followed by those without sex communication (56%)(60). The general observation is that adolescents and their parents or carers don't discuss sexual matters and many young

women avoid discussing sex at home due to fear of being ridiculed, beaten, or embarrassed(67,74). On the other hand, Ahenkorah et al (2022), stated a different opinion on the parenting style that negatively affects AP; that adolescents from homes with lax rules and regulations have the highest AP rates(79.2%), 56% of adolescents who lack the freedom to talk about sexuality with their family became pregnant and 86.7% are adolescents whose parents were happy to see them pregnant(75). Kotoh et al (2022) stated that parents with higher levels of education are better sources of information about health, contraception and are more likely to pass along to their children much stronger preferences for avoiding adolescent pregnancies. Ghana's public health campaigns often use English banners, suggesting English reading proficiency is crucial for influencing health outcomes and preventing adolescent pregnancies(52). The adult literacy rate (15 years and above) was 80% in 2020 per world bank open data(76). However, GSS (2022) PHC states 69.8% among the population 6 years and above, with the highest in the Greater Accra region (87.9%) and the lowest in the Savanah region (32.8%)(21). Amadu et. al. (2022) scoping review on the sociocultural influence of AP in Ghana stated that AP is associated with family disturbance, and bad parenting(60). GSS (2021) informs us that parent loss can make girls vulnerable, potentially reducing household income and putting them at risk of making poor decisions. Girls with at least one parent alive are less likely to engage in economic activities, be absent in school or in union(8,20)

Intimate Partner Relation

According to Kotoh et. al. (2022) study on the experiences of pregnant adolescents in the peri-urban districts of southern Ghana, AP results from transactional sex (sex in exchange for money), consensual sex or abusive sex(52). Akurugu et. al. (2021) established that adolescent girls are frequently subjected to physical pressure and forced to do unprotected sex(67). According to UNICEF (2019), one in five girls reported having been victims of rape or sexual coercion in the previous 12 months before their study and 11% had sex with sexual partners who were 10 years older than them. Force sex and sexual coercion are part of domestic violence which are punishable by law in Ghana (1). Yet, these adolescents mostly refuse to report these sexual abuses for fear of losing their partners or being stigmatised among their peers or within society(77). Per 2016 Domestic Violence report (GSS,2016), sexual violence is more among women (2.5% of domestic violence) than men (1.4%), 65.3% of women and 56.2% men agree that women should be blamed for rape. This suggests a social norm that holds women accountable for the violence they face(78).

Peer and sibling relations

An important risk factor for adolescent pregnancy was peer pressure to have sexual relations. Earlier research discovered that peer impressions of attitudes and behaviours have a greater impact on the likelihood of becoming pregnant (60). Amadu et. al. (2022) wrote that adolescents from broken homes rely on their peers for sexual guidance, increasing peer influence and the risk of sexual activities and AP(60). Sibling modelling influences adolescents' sexual attitudes and behaviour are common when siblings contact regularly and have a cordial connection. Therefore, it is intriguing to learn that pregnant adolescent girls are more likely to have siblings (87.1%) who support adolescent pregnancy(58).

3.3 Institutional Factors

Institutional factors contributing to AP in Ghana are examined and presented here.
These factors may include family planning services, educational, and religious institutions.

Family Planning Services and abortion Care

Chandra et. al. (2020) stated that improving access to contraception among adolescents is indeed a sure way to prevent AP. However, lessons learnt from studies over the 25 years is that programs must be contextualised to the needs of the end user as illustrated in the table… attached as part of (annexe)(70).

The dissemination of information and services related to sexual and reproductive health to teenagers in Ghana is severely hindered by myths and cultural norms. As a result, Knowledge about the source of family planning among adolescents (15-19 years) is the lowest (59%) compared to 90% among the 30 to 40-year group (1). Sexually active adolescents, including those in early or forced marriage, may face significant barriers in accessing the information, support, and services they need to make safe and informed decisions in their reproductive lives(79). Aboasi et. Al. (2019) study on the barriers on the access and use of adolescent health services in Ghana stated that adolescents' experiences barriers to access contraceptive services due to stigma, unfriendly attitude of services providers, lack of information and high cost of services(80). Ahinkorah et. al. (2019) also confirmed this and added that lack of confidentiality and privacy in our health institutions(81). Such barriers to supporting adolescent sexual and reproductive health may have far-reaching implications.

Ghana's 1985 abortion law allows abortion for rape, female idiot defilement, incest, and mental disorder (psychiatrist diagnosis not required). It is regarded as one of the liberal abortion laws in sub-Saharan Africa – SSA(82). However, Abukari et. al., (2023) described it as unpopular as they found 95% induced abortion and 79% unsafe abortion among their study participants who were university students. According to Bain (2020), adolescents encounter significant barriers to safe abortion services. Neither the law nor the health service reproductive health strategy provides explicit recommendations. Cultural and religious beliefs that consider abortion as murder, high abortion fees, community stigma, and gender stereotypes are some of the factors that limit access to abortion care for adolescents in Ghana(82,83) UNICEF (2019) reported that almost 20% of AP end as induced abortions with 30% performed using unsafe methods.

Media Availability

Albeit the media has an important role in improving access to information, providing knowledge, and promoting behaviour change. Arguably, it can be a means of early sexual exposure to adolescents. An example is the mass media and social/new media could be an effective means to provide both in and out-of-school sex education for adolescents which is proven to foster healthy behaviour among adolescents(22,69,84). UNESCO (2020) stated that over 70% of the world youth online can serve as a resource for sexuality education, however quality assurance remains a major concern. Per UNICEF's (2019) situational analysis of Ghanaian adolescents (15 to 19 years), access and use of the media are not the same among adolescents. For example, adolescent boys have 8% computer skills whilst girls have 4% computer skills, and boys from rich homes have 57% access to the Internet against 24% of girls from rich homes. The radio, which is the commonest communication commodity in Ghana, boys (55%) listen to the radio more than girls (41%) (1)

Religious Institutions

Religion has a big impact on sexual behaviour, and people who value religion are more likely to put off having their first intercourse. According to cross-national studies on attitudes, Jews and Buddhists have more liberal attitudes than Muslims, Christians and Hindus do(85). Ahenkorah et al (2021) stated that pregnancy rates among teenage girls were highest (64.7%) among those whose religions encourage sex before marriage (80). Muslims prioritise being virgins until marriage, increasing their exposure to cultural norms that forbid premarital sex. This is influenced by social control mechanisms, strong links to views, and a dearth of chances for unstructured conversation between the sexes (84). Religious and traditional leaders in Ghana are major stakeholders of issues on the Ghanaian child especially on behaviour and sexuality. An example is the public outcry when CSE was first into the public domain.

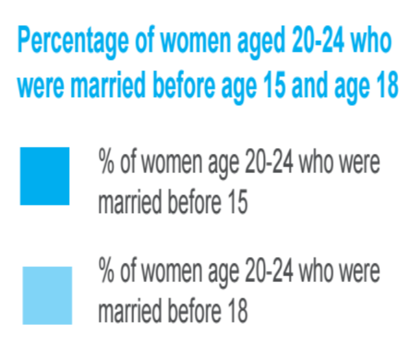
3.4 COMMUNITY FACTORS

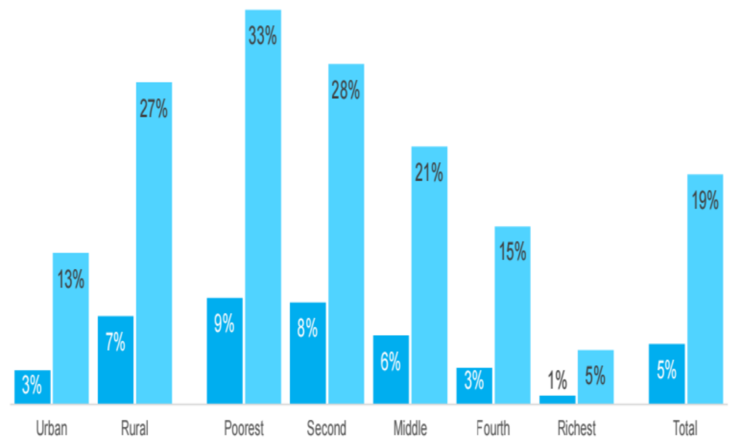
The sociocultural characteristics, geographic region or location that affect AP in Ghana will be the focus under this level. In Ghana, sexuality issues are rarely discussed in public. Because of this 74% of students find it difficult to express themselves, 51% worry about being teased, and 39% worry about getting hurt. Three-fourths of students have had questions about SRH related to class but have refrained from asking out of embarrassment, a lack of time, or concern for teacher reprimand(65,86).

Culture/Location and Geographic Region

The Universal Declaration of Human Rights recognises the right to "free and full" consent to marriage, which is violated by marriage before the age of 18(child marriage)**.** Child marriage exposes girls more to violence and abuse due to the age gap(3) In Ghana, the number of child marriages has been falling, although it is still prevalent throughout the country, except for the Greater Accra Region. It is more prevalent among girls from the poorest households and is twice as common in rural areas as it is in metropolitan areas(1). For instance, the 2014 Multiple Indicator Survey (MIS) reported that one in every five adolescent girls marries before the age of 18 years. This represents 20 per cent but 2017/18 MIS shows a reduction to 19 per cent with 27 percent in rural and 13 per cent in urban communities (Figure 9 below). These numbers correlate with the number of adolescent birth rates among the same age group within the same year (Figure 10 below) confirming that early marriages are the major determinant of AP (23). Child marriage increases with age and poverty, with the highest (33%) among those who got married by 18 years from poor communities. While some young women were disapproved of and stigmatised for bringing shame to their families after getting pregnant, others deliberately fell pregnant to have a boy for inheritance. For fear of societal rejection or forced marriage, some women had to conceal their pregnancies (78).

Figure 9: Percentage of Women Aged 20 to 24 years who were first married/ in a union before ages 15 and 18 (child marriage).

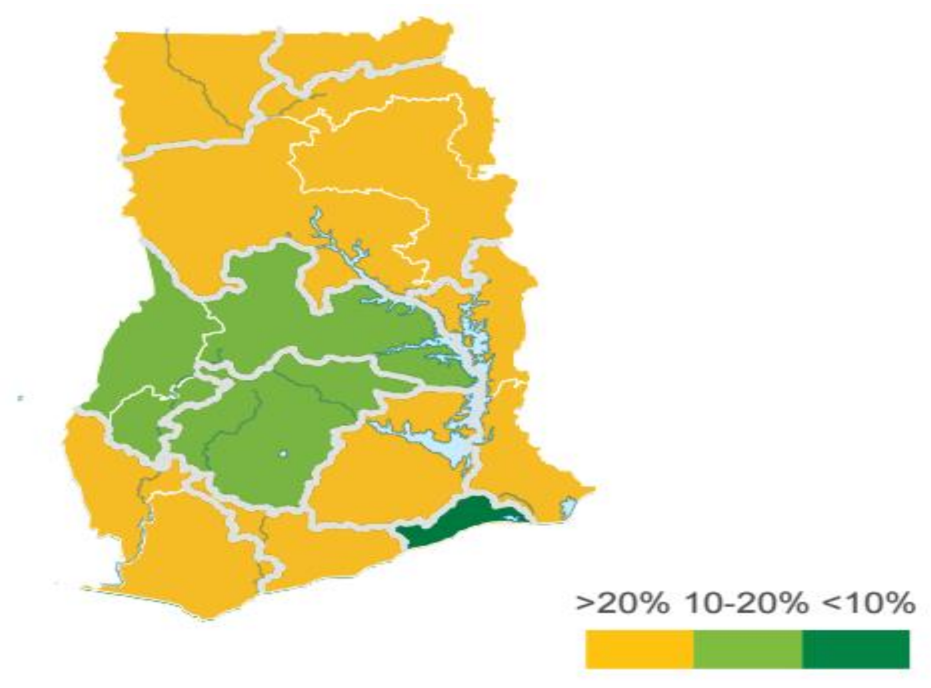




Source: GSS, 2019

The GSS through the PHC (2021) made it clear the need to take some measures to lower the number of girl-child marriages in Ghana. The survey concluded that 79,733 girls between the ages of 12 and 17 have been in unions nationwide. About two-thirds (66.9%) of this group are currently married, while 27.2% are in non-marital relationships or cohabiting with a man (figure 10). Northern Region (14,031 girls) has the most girls in a union between the ages of 12 and 17, followed distantly by the Ashanti (9,767 girls) and Greater Accra regions (6,063 girls). These three regions make up over a third (37.8%) of all girls in Ghana who have ever joined unions Figure 11 below shows the regional prevalence of child marriage in (10,27,26)

Figure 10: Regional Prevalence of Child Marriage in Ghana



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Source: UNICEF, 2019

Muslim parents are more likely to marry their children early, potentially as protection against premarital sex. A case in point is, in 2003, 61% of Nigerian Muslim women aged 15-19 were married, indicating a higher percentage of marriages among Muslim parents (84).

3.5 Policies relating to Adolescent Sexual and Reproductive Health and Rights

The fifth level of socio-ecological model examines public policy. Specifically in Ghana, government is dedicated to improving the welfare and wellbeing of girls in terms of their education, health, and general quality of life. This is reflected in the design and formulation of policy frameworks. Acknowledging this and in line with the study objective, only policies concerning ADSRH and specific to the determinants of AP were considered and discussed. Analysis of data in this thesis revealed that though there are diverse policies on adolescents in Ghana, very few of these policies focuses on determinants of AP. This section examines policies specifically formulated with focus on AP and/or adolescents reproductive health and sexual rights. What follows is an examination of adolescent health services policy and strategy.

3.5.1 Adolescent Health Service Policy and Strategy (2000, Revised in 2016–2020)

The Ministry of Health (MoH) Adolescent Health Policy and Strategy was based on an earlier policy document developed in 2000 by Population Council of Ghana to discuss and address adolescent reproduction health issues. This earlier policy document therefore informed and gave focus to MoH Adolescent Health Service policy addressing ASRHR issues by promoting the creation and delivery of programmes and services. This was to improve and widen the range of alternative reproductive health services available to young people. The policy and strategy serve as a framework for coordinated health service delivery and intervention for youth and adolescents that ensure effective resource use (4–6). Currently, this policy is under review under the name Ghana adolescent sexual and reproductive health policy for young people covering 2016 to 2034. However, it cannot be quoted as stated in the document.

Table 7 The Ghana Adolescent Health Policy and Strategy (2016-2020) brief analysis

Policy	year	Target group	Determinants of AP addressed	Time-bound objective	Scope of Activities	Resource	Youth involvement
Adolescent Health Service Policy and Strategy	2016-2020	10-24yrs	Early sexual debut Child marriage Access to family planning services Coerced sex Concurrent Partner	No	Social and behavioural change Communications strategy Health services (Increase access for adolescents Training (need assessment of staff and capacity building)	Human and Financial	Yes

The national Gender Policy	2015	Boys and girls	Poverty Sexual violence		Social and behavioural change, Adolescents access to health, training, and capacity building of healthcare workers		No

As shown on the table above, the table shows the name of the policy, years of the policy plan and target group, as well as the determinants of AP addressed by the policy. The table further shows whether the policy had time bound objective, the scope of activities, resources allocated and youth involvement. Others are as follows:

The Strategic Plan to End Child Marriage (2017-2026)

According to the strategic plan of the Ministry of Gender, Children & Social Protection, gender inequality, patriarchy, subordinate role of women and girls in the family and society are the main causes of child marriage in Ghana which is both a cause and effect of AP. The fact that the girl is more likely than the boy to be pulled out of school and possibly married off to lessen the burden on the family when families are struggling financially reflects and confirms this. The goal is a society without child marriage by powering girls and boys to prevent and respond to child marriage, through influencing community beliefs and improving access to education, health services, and national laws (2,3). The 1992 constitution and the 1998 Children's Act prohibit marriage below 18 years in Ghana but set the age of consent to sex at 16year(3).

Adolescent Pregnancy Strategic Plan (2018 - 2022)

Ghana Health Service (GHS) in 2017 developed the 'Adolescent Pregnancy Strategic Plan'. The plan was to offer a guide to end AP by encouraging institutional engagement, equipping young people with gender-sensitive, youth-friendly information on reproductive health, and expanding education and retention beyond JHS levels. The realization of these goals was envisaged to be achieved through empowering young people to make the right decisions about their first sexual experiences (1).

Child and Family Welfare Policy (2015)

The Child and Family Welfare Policy was developed by the Ministry of Gender, Children & Social Protection to address child protection issues and strengthen the functioning of Ghanaian families to improve the welfare of Ghanaian children and family. The policy strategy to design and initiate early intervention programs, better services, data management, and empowering families, through civil society organizations collaboration. The goal of child and family welfare policy was to enhance community structures, promote children's well-being, through the prevention of abuse, and protection of children including adolescents(87).

National Gender Policy (2015) And National Vision for Girls' Education and a Framework for Action (2002)

The main objective of Ghana's National Gender Policy was to mainstream gender equality issues into the national development agenda and processes by enhancing the social, legal, civic, political, economic, and social-cultural conditions of the Ghanaian people, particularly women, girls, children, the vulnerable and marginalized people with special needs, and persons with disabilities. More importantly, addressing issues with adolescent pregnancy and issues with reproductive health forms a core part of the national gender policy agenda. Against the backdrop of the 'National Gender Policy' (2015) is the 'National Vision for Girls Education and a Framework for Action' (2002). The latter action framework for girls' education addresses issues of retention, completion, and quality education while also highlighting the underlining gender and regional discrepancies in girls' education in Ghana. The framework further emphasized the multisectoral collaboration and government involvement in solving issues affecting adolescents like AP and HV/AIDS(88,89)

Political Recognition

Almost all the policies outlined in the earlier chapter did not have a clear focus on adolescent health services delivery except this policy above. Also, while many of the policies had statements by political leader's indicative of political recognition, the Adolescent Health Service Policy and Strategy did not (37). Some of these statements reflected the efforts expended and included statements such as 'significant efforts have been made by the government in collaboration with the community and stakeholders in expanding, improving and distribution of the reproductive, maternal, newborn, child and adolescent health services to the target population.'(38) Such statements by political leaders reflect their will to improve ASRH through collaboration with other major stakeholders, particularly developmental partners and international NGOs. Aspirational statements were common in most policies. For example, statements such as, 'as we move closer towards the 2015 Millennium Development Goals and/ or SDGs were found in most of the policies.

4 CHAPTER FOUR

4.1 PROVEN EVIDENCE-BASED INTERVENTION(S) TO REDUCE ADOLESCENT PREGNANCY

This chapter examines and reviews an evidence-based practice intervention applied in the Ghanaian context to draw some lessons for policy recommendations to reduce the high AP cases in Ghana. Comprehensive Sexuality Education & Guidelines is a global evidence-based practice intervention designed purposely to reduce AP. This practice intervention has been implemented in many countries in both the high-income countries (HIC) and LMIC. This is a well-researched and evidenced to reduce AP(84) The preceding statement should be set against Chandra et al., (2020) statement that improving access to contraception among adolescents indeed prevents most AP cases. The authors however added that programmes must be contextualized to the needs of the end-users in a country(70). Again, in an earlier statement by Chandra et. al. (2015), the authors noted that comprehensive sexuality education and appropriate SRH services are proven practices but poorly implemented in many settings(84).

In line with the above evidence and recognizing the importance of sexuality education to adolescent development, the Ghana Government in partnership with other stakeholders and support from the UNFPA created the National Comprehensive Sexuality Education and Guideline(s) in 2019. The development of the CSE guidelines was also intended to help the Government of Ghana to meet its obligations in promoting adolescent wellbeing and health. This was done through stakeholder cooperation of partners, including the national government, Planned Parenthood Association of Ghana, and several other civil society organizations. The guideline was purposively designed to promote more thorough sexuality education for teenagers enrolled in school and those not in school or out of school. The guidelines also ensured the re-entry to school of pregnant girls and adolescent mothers and to empower them to avoid subsequent unintended pregnancies. The age range covered by the in-school program is four years old (the national kindergarten entry age) through 18 years old, which marks the conclusion of the pre-tertiary education phase (7).

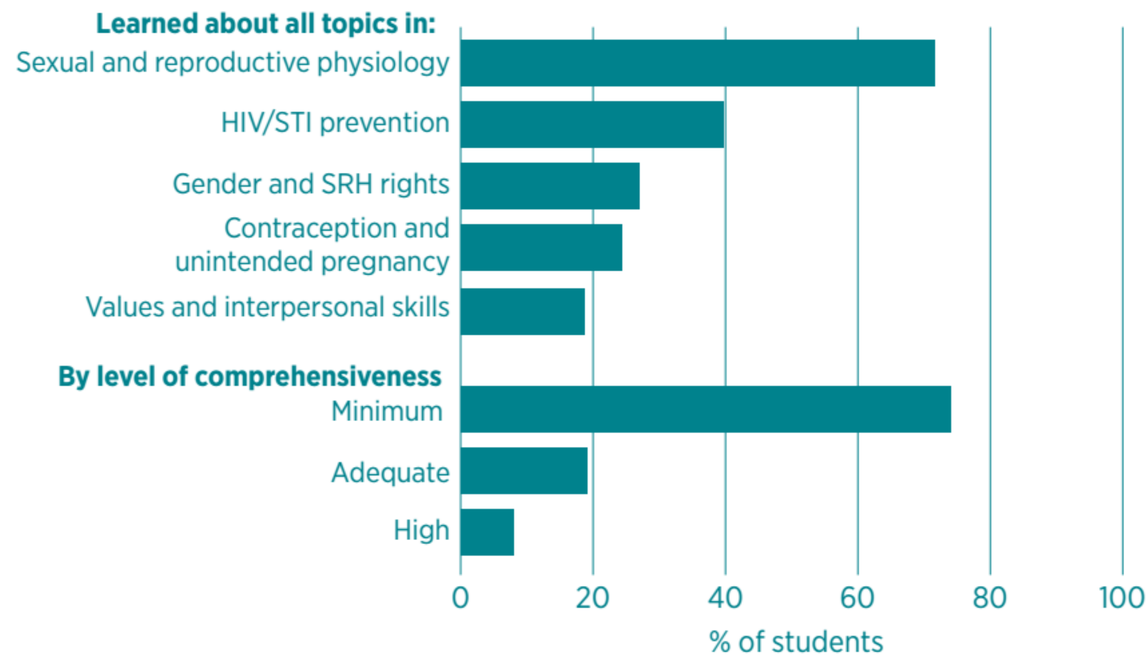
Acknowledging the promotion of core concepts of human rights, gender equality, and empowerment via correct knowledge and participation are vital components of comprehensive sexual and reproductive health education delivery for adolescents (71,89). This point of discussion is noted by Chandra et al (2015) statement hinting that even though sexuality education has been demonstrated to be effective, comprehensive sexuality education and SRH programmes are frequently carried out ineffectively (83).

CSE guideline was launched in February 2019 with two forms of delivery: 1) the in-school CSE with age and grade-specific topics and 2) the community-based CSE with unspecified topics (88). The first form of CSE delivery, that is; in school sex education is examined next. The idea of formally teaching students about sexual and reproductive health in the classroom has led to the development of terms like Population and Family Life Education, Adolescent Reproductive Health, Reproductive Health for Young People, and Reproductive Health and Development(90). This was because of resistance from the public to the institutional intervention and idea of formally teaching students about sexual and reproductive health in the classroom, the CSE practice implementation digressed (88). This did not only weaken the program intervention but also destroyed the core ideas of teaching sex education in Ghanian schools as sex education was limited to moral and religious admonitions, menstrual cycle and prevention of pregnancy, and condom use (78). While some adolescents had no sex education, others had some

education but no access to condoms (78). The promotion of human rights, gender equality, and empowerment via correct knowledge and participation are vital components of comprehensive sexual and reproductive health education for adolescents(65,86). Chandra et al (2015) stated that even though they have been demonstrated to be effective, comprehensive sex education and SRH programs are frequently carried out ineffectively (83).

However, several challenges have plagued CSE implementation in Ghana. This is not limited to; integrating and teaching CSE with other subjects makes CSE less significant in the curriculum as it loses its weight as a stand-alone subject. Again, integration dilutes CSE content even though it motivates instructors and students to invest more time to teaching and learning., However, integration with other disciplines may not always be beneficial for developing core values and abilities of CSE as it shifts student focus and emphasis on learning to pass the exams. A later report revealed that many students could not learn all the topics related to SRHR including gender equity, contraception, and interpersonal skills. Worse of the challenges is that CSE is viewed by some government officials as for girls only and therefore should be considered as an elective subject (71,89).

Figure 8: Percentage of Students per Sex education Topics Learnt in Ghana



NOTE: "Minimum" indicates at least one topic in each category; "adequate," nearly all topics, except one at most, in each category; and "high," all topics in each category. Levels are not mutually exclusive; for example, schools that meet the adequate level also meet the minimum level.

Source: Guttmacher Institute 2017(65)

5 CHAPTER FIVE: DISCUSSION OF THE RESULTS

This chapter will synthesize and discuss the findings from the study on AP determinants in Ghana. These high and low numbers of adolescent pregnancy cases as indicated above are not by accident. Rather there is a range of determinants, influencing and contributing to this high numbers of adolescent pregnancy cases in Ghana. Using the socio-ecological framework as a lens to guide the examination of the phenomenon and engaged the AP literature in Ghana, this chapter discusses some of the key findings of AP determinants reported in the previous chapter.

5.1 Determinants of adolescent

Age And Early Sexual Debut

The literature revealed age and early sexual debut as strong determinants of adolescent pregnancy in Ghana. Acknowledging the legal age of sexual consent in Ghana is from 16 years and recognizing the fact that the number of births per younger adolescents (10-14 years) is rising and closing the gap with the older adolescents (15 – 19 years). It is crucial for government to reinforce the legal age of 16 years approved for adolescents to have sex. Further, the study revealed that many adolescents have had sex at a rather early age between 13 to 15 years with a good number stating that they had their first sexual experience at 16 years. However, early age of sexual debut has been linked to negative sexual and reproductive problems like adolescent pregnancy and sexually transmitted infections(6).

The review revealed that adolescent girls in Ghana are highly fertile, averaging about 2.2 births per woman before they reach age 20. Recent trends point out that the number of births per younger adolescents are rising faster and closing the gap of the number of births per older adolescents (). This has some policy implications as there is the need for inclusive policy targeting all adolescents age groups. The Comprehensive sexuality education guidelines targets all children from 4 to 18 years of age(91). However, the literature revealed the strong opposition to the implementation of the CSE in Ghana by the public more especial religious organisations. Additionally, it has been documented that young adults from less affluent households think they have fewer possibilities in life and might lack the will to pursue education, employment, and leisure activities compared to those living in cities (6). Nyarko et al (2021) study also confirm the link between adolescent pregnancy and fertility and socioeconomic factors such as home wealth status, employment history, and working status. Higher adolescent fertility risks have been associated with poor-household-raised female adolescents, employed and self-employed teenagers, as well as regular employees. Johnson (2022) affirmed this connection between economic and educational activities and births.

Geographical Location

The study further found that geographical location maybe a determinant to AP as regions in southern Ghana reported high cases of AP than the regions in northern Ghana. For example, Ashanti region is reported of having the highest cases of AP in Ghana. This is followed by Greater Accra and Eastern region, whiles Upper West region in northern Ghana is reported of having the lowest AP cases. It seems that the regions in the north of Ghana reporting low AP cases are mostly Muslims while regions in the

south reporting higher AP cases are mostly Christians. This revelation is confirmed by the reviewed literature that pointed out that the Muslim religion places high value on girls remaining virgin till they marry thereby prohibiting adolescents from having early sexual debut. There is no doubt that early sexual debut predisposes girls to early pregnancy. For example, the Volta Lake in the Volta region is identified as early sexual debut hotspots which are also known as adolescents' pregnancy hotspots. However, it must be noted that this area is also noted for child labour, low socioeconomic status, and a rural community. This is complicated and aggravated by the rural – urban divide as girls in urban centres rather than rural setting experience early sexual encounters. Coincidentally, regions in northern Ghana have more rural features than regions in southern Ghana which are considered urban. Child marriage which is more prevalent in the northern part of Ghana may account for the rates of AP in the north.

Socioeconomic Factors

One of the key factors influencing this is the current socioeconomic situation in Ghana. It was found that poor socioeconomic times and activities make parents poor, cause children to be vulnerable and at greater risk of not meeting their welfare and reproductive health needs to realize their rights and improve their overall well-being in the society. Also, parents may push their girl child into early marriage in exchange of wealth to enrich the family status, but the consequences are AP as revealed by the literature. Education including adult education and sex education are seen as a viable way to reduce adolescent pregnancy. This is because of the outcomes in education by giving knowledge, increasing awareness, and empowering the recipients and beneficiaries to make informed decisions and improve the choices they make in life. Kotoh et al (2022) study points out the preceding finding as adolescent involvement in adult literacy programmes and formal educational achievement can help to reduce AP. Added to this, evidence abounds in the literature that developing guidelines for comprehensive sexuality education programmes, particularly school sexuality education increases the learning outcomes for the recipients and beneficiaries. This is aggravated by the high prices of family planning services to adolescents who do not have the health insurance, making the services inaccessible to many adolescents. This is even though family planning services are available in hospitals and health facilities across the length and breadth of Ghana and in pharmacy shops.

The above point has affected the implementation of adolescent reproductive health policy and program interventions in Ghana. For example, many sex education programs in Ghana especially school sex education and adult education are poorly implemented due to lack of financial resources. This is aside from the public opposition and resistance to sex education in schools as a distinct separate program because of religion as many Ghanaians are Christians or Muslims (GSS 2021) and dislike introducing school sex education as part of the school curriculum. Withstanding this, Akrugu et al (2017) noted in their study that, most pregnant young women were educated and aware of condoms before becoming pregnant and believed they could protect against both pregnancy and infections. However, they see it as a responsibility of the man, or their partners may misinterpret them as unfaithful and lose their partners, so they prefer not to use the. This means that educating young girls is not a strong preventive measure and does not guarantee the adolescent from unwanted or early pregnancy. The design, availability and use of other complementing reproductive health interventions increase the likelihood of unwanted pregnancy and improve the well-being of pregnant adolescents.

Also, it was noted that adolescent girls who lived in households with educated heads are less likely to get pregnant as they are more likely to be in school, not working, and not in a union, as compared to girls living in homes where the head has no or little education at only pre-primary education(21). This is in line with Kotoh et al (2022) assertion that along with socioeconomic position, parental education is perhaps of utmost significance determinant of adolescent pregnancy. In addition to this the authors stated that in contrast to parents with lesser levels of education, parents with higher levels of education are both better sources of information about health and contraception and more likely to pass along to their children much stronger preferences for avoiding adolescent pregnancies.

Acknowledging this, the promotion or prevention of adolescent pregnancy can be supported by interventions that promote parent – child relationship and communication (intergenerational dialogues) through a variety of mechanisms. In line with this, there is enough data to conclude that open communication, supportive, and regular discussions about sexuality between parents and children are associated with adolescents delaying or forgoing their first sexual experience and/or having fewer sexual partners, both of which lower the risk of pregnancy. Ahinkotah et al agree with this point of discussion when the authors noted that 56% of teenage girls who lack the freedom to talk about sexuality with their families became pregnant.

Furthermore, the issue of stigmatizing young adolescents who patronize family planning services as bad is a worry. This needs policy and program interventions to respond to deal with as it turns many adolescents away of patronizing the services even if family planning services are available and accessible. Empowering young adolescents to believe in themselves might be one possible intervention that may yield good results. This demands the creation of safe spaces for adolescents to enable their active involvement in the formulation, designing and implementation of adolescent policy and program interventions. It is worth noting that adolescents were involved at different stages of the process and development of adolescent policies in Ghana. However, even though there was high indirect involvement of many policies in the country by adolescents or youth, direct adolescents' involvement in policies was very low. This created the problem of ownership of the policies and as a result restrained many adolescents from owning the process and development of the policies to drive their active participation in the formulation, and implementation. Monitoring and evaluation of adolescent policies.

VULNERABILITY, INVOLVEMENT AND EMPOWERMENT

Vulnerability

There are two important ideas and/or issues that are emerging under this. Pregnant adolescents in Ghana are at greater risk of vulnerability as they lack access to essential basic welfare services, including sexual and reproductive health services to meet their needs that are diverse and multiple. Some of the key causes of their vulnerability are linked to lack of access to education, living in single-parent homes, experiencing loss of a parent or both parents and poverty. GSS (2021) states in one of its reports that parent loss can make girls vulnerable, potentially reducing household income and putting them at risk of making poor decisions. Girls who have at least one living parent are more likely to be in school, more likely to be involved in economic activity, and more likely to have ever been in a union than girls who have no living parents(21).

Involvement

Involvement is a process of participating in an activity freely without any restraint. It is known that involvement in an intervention facilitates and promotes ownership of the intervention. Ownership facilitates high responsibility and commitment to see the process through to its successful end. Involvement also has the added benefit of enhancing abilities and promoting empowerment.

Empowerment

It is argued that pregnant adolescents and/ or after giving birth needs to be empowered to prevent second pregnancy and to resist transactional sex. This **is in line with** Ganchimeg et al, statement that empowering adolescents to delay and decide on their sexual debut can help prevent AP (26,56). UNICEF reported that around 10% of adolescent girls and 7% of adolescent boys did have sex before turning 15 years. A partner who was at least 10 years older had intercourse with about 11% of these adolescent girls(1). Adolescent sexual habits in Ghana, particularly transactional sex—in which partners exchange presents or money—are one of the factors contributing to AP.

5.2 Review Limitations to

This study's conceptual framework for desk review on determinants and policy implications in Ghana was limited international and national policies written in English. The literature reviewed may not cover all the processes and activities involved in the policy documents

6 CHAPTER SIX

6.1 Conclusion and Recommendations

This desk review study **identified eleven (11) policies** on adolescents' reproductive health and sexual rights developed by the Ghana government, state agencies and international partners to respond to and effectively deal with **the key determinants of AP revealed by the desk review** to reduce the rising AP cases in Ghana. A literature review was performed, and the socioecological model was used to obtain results for discussion. A content analytical approach was employed to engage and analyse the data gathered by the review. Through this study, a deeper understanding was developed of AP determinants in Ghana and different policy responses were developed and directed to address the determinants to reduce the rising AP cases in Ghana. Based on the review and discussion, conclusions were drawn and recommendations formulated.

All the policies identified and referred to were formulated to address a range of determinants of adolescent pregnancy in Ghana. Although most of the policies' formulated had objectives to address adolescent pregnancy, only one objective was measurable (qualitatively and quantitatively). Another one included a timeframe for the deliverables. Further, some of the policies reviewed were backed by political recognition, and targeted adolescents and/or young persons. The most common recommendation(s) across all the policies identified and reviewed suggested designing a comprehensive sexuality education with guidelines and, provision of adolescent reproductive health services.

The desk review looked at specific aspects of adolescent pregnancy cases to uncover some key determinants of adolescent pregnancy. These key determinants outlined necessitated several policy

responses. Child marriage, early sexual initiation, socioeconomic status of parents, children's occupation, poverty, lack of sexuality education, parent-child communication, availability of family planning services, affordable and adequate contraceptive commodities, sex education, illiteracy, rural-urban communities, traditional cultural norms, religious influence, parental loss, and lack of social support network. All these concepts and key terms points to the determinants of adolescent pregnancy in Ghana. Whilst some of the policies examined made some of these determinants a policy target and priority to address, others only referred to them only making a minimal and limited to address the determinants identified.

The key message of the rising AP cases and rates in Ghana as against the several policy interventions in the country may be due to a complex interplay of factors many of which have structural roots and others may be due to over reliance on institutional-level interventions meant to reduce AP cases occurring in communities where people are living and making meaning to their life. Therefore, there appears to be a mismatch and a wide gap between the level and location of systems of intervention and the target. Nonetheless, the most significant and formidable barrier and/or hindrance to reducing AP cases and rates in Ghana is the limited access to adolescent reproductive health services which is not limited to, family planning, modern contraceptive commodities, and political recognition of adolescent reproductive health and sexual issues but also low patronage of the available services by adolescents. All these combines and interact to hinder adolescents to access reproductive health services. Understanding these barriers and how they hinder the effective implementation of policies to reduce adolescent pregnancy in Ghana goes a long way to addressing the AP problem.

6.1.1 Conclusion and Implications

This desk review contributes a specific perspective on determinants of adolescent pregnancy in Ghana to enhance understanding of the phenomenon and to inform policy intervention and help address the high adolescent pregnancy rates in the country. The study results can serve as a benchmark for future revision of national policies geared towards addressing adolescent pregnancy in Ghana. They employed the socioecological conceptual model to guide the study. It was found that there are a range of determinants that influence adolescent pregnancy in Ghana and may require policy changes through rethinking and refocusing of policy priorities and targets set against adolescent pregnancy issues and needs. and concerns. with precise and explicit objectives. The realization that there are clear advantages in policy interventions which is reinforced and based on relevant theory/philosophy, human resources, human capital, descriptions of nature and scope of tasks/activities, and partnership between the public and other stakeholders. However, there were gaps in relation to financial resourcing and pregnant adolescent vulnerability, involvement, and empowerment. Agreeably, policy effectiveness could be best measured depending on the extent the policy is able to deliver quality services to meet the needs of policy beneficiaries.

Realizing the study objective of knowing more about the determinants of adolescent pregnancy will help to initiate policy dialogue among stakeholders in the broader Ghanaian society, thereby facilitating a process to rethink and refocus on important issues on adolescent pregnancy in Ghana. Again, acknowledging that this study will produce current information on adolescent pregnancy in Ghana, this therefore will form the basis to inform future policy reformulation for pregnant adolescence in the country. More importantly, information gathered through this desk review study demonstrates whether

and how adolescent reproductive health policies have failed and/or struggling to achieve meaningful reductions in adolescent pregnancy rates in Ghana.

Recommendation(s)

A further study is recommended to collect and add primary data to the secondary data to enrich the study thereby deepening the breadth of knowledge to produce to enhance adolescent pregnancy understanding in Ghana.

For future policy reformulation, governments and policymakers are encouraged to be strategic, transparent, and authentic about the required financial resourcing and identify funding sources. Again, realistic, and relevant policy objectives that meet the needs of policy beneficiaries should be set to provide a basis for assessing policy implementation and outcomes in relation to the adoption, uptake, and effectiveness of the policy in line with the objectives. Governments, policymakers, and other stakeholders should be educated on key concepts and processes of AP policy, and its design, roles, function, and importance. The concepts include adolescent vulnerability, their involvement in policy processes, adolescent empowerment, and human rights. Adolescent and young person's advocate groups and partnership should be formed, and members trained to contribute towards this function.

Acknowledging that there is a range of determinants of adolescent pregnancy that is not only complex but also not easy to measure, it becomes critical to design frameworks, including quantifiable and descriptive mechanisms to uncover AP determinants and measure the responding policy interventions and its effectiveness. Also, future policy development should include a consideration of a combination of feasible and effective approaches such as ASRH information and education in schools, communities, and media. Other important issues that can increase policy effectiveness include recruiting and training to improve the capabilities of nurses interested in ASRH, enhancing access to sexual and reproductive health services by removing cost-related barriers, making available and accessible family planning commodities by granting tax exemptions, training health workers to provide counselling services. The wider policy environment can also be mobilised to respond as a matter of urgency to the social determinants of adolescent pregnancy.

Finally, withstanding the fact that AP determinants are complex and varies, and services delivery and information are fundamental to meeting the health needs of pregnant adolescent to improve their wellbeing and quality of life, the government of Ghana must ensure universal access to reproductive health services and education and incorporate it into health training and teacher education institutions.

Further acknowledging the challenges to implementing comprehensive sexuality education in Ghana as a stand-alone program, the government must advance proposal to think through and redesign reproductive health education and incorporates them into senior high school curricula.

Furthermore, the government should finalize reproductive health program recommendations for out-of-school youth to promote awareness and knowledge on reproductive health and sexual rights thereby reducing potential AP cases among these population group.

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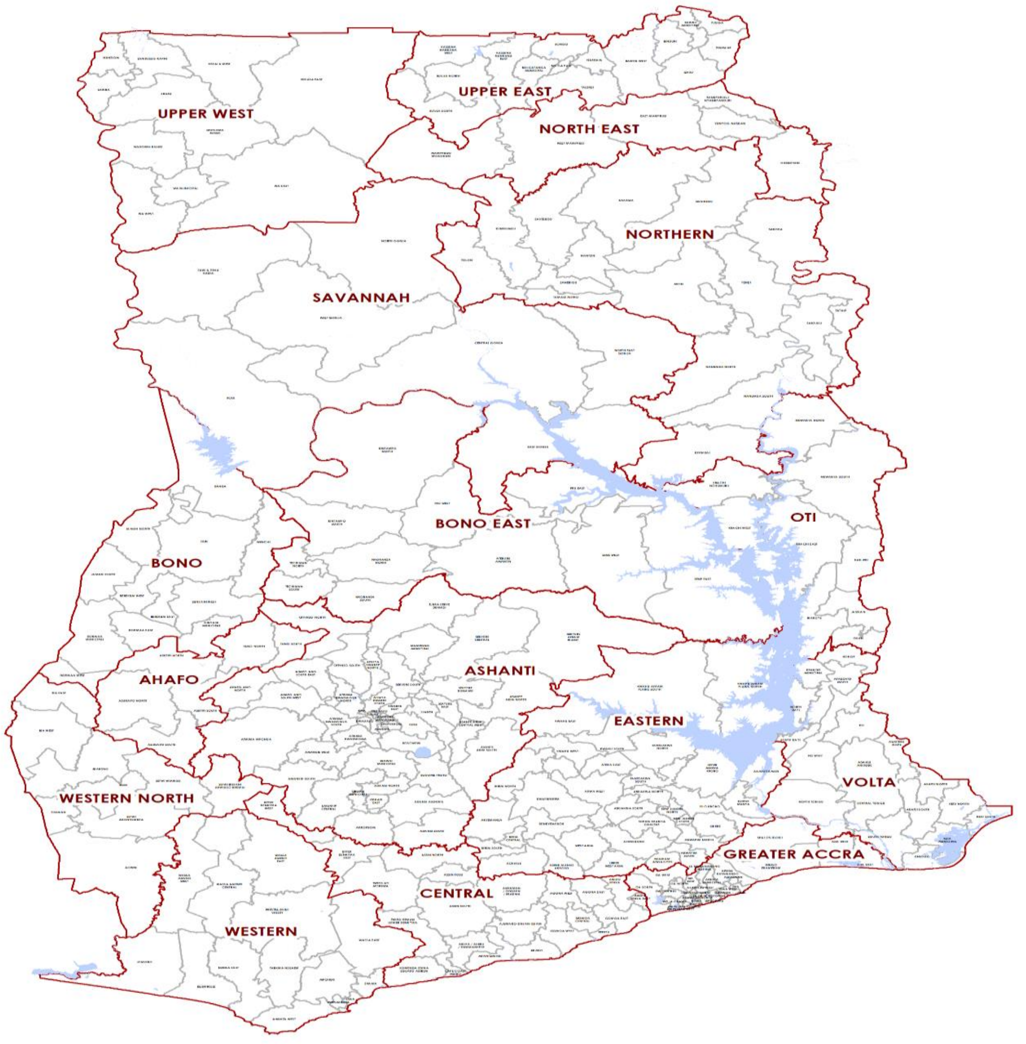
ANNEXE 1

Country Profile/Demography (Ghana)

Ghana, located in the western part of sub-Saharan Africa (SSA), has a land area of 238,537 square kilometres and is surrounded by Togo to the east, Burkina Faso to the north and northeast, Cote d'Ivoire to the west and northwest and the Gulf of Guinea as a coastline to the south. Ghana is endowed with minerals like gold, bauxite, diamonds, and oil. The country is divided by the volta lake, world's largest artificial lake which is dammed at Akosombo to produce hydroelectric power. Ghana's climate is warm

and humid. This distinctively divides the country into the southern rainforest and the northern Savana area. Ghana is divided into sixteen administrative regions (Fig I.) with Accra, in the Greater Accra region, being the national capital. These regions are further divided into 212 districts councils and units)(10,37). The figure below shows the regions of Ghana.

Figure 1. The administrative regions of Ghana from 2019



Source: Ghana Statistical Service (GSS, 2022(21)

Ghana's population is not only growing but also youthful. The total population of Ghana is currently 32.2 million. Both the Ghana Demographic and Health Survey (GDHS, 2015) and Ghana Statistical Service (GSS,2021) reported that the population grew by 2.1 per cent annually between 2010 and 2021 which is the lowest since independence in March 1957. However, there are variations in the regional growth rates; from 3.7 per cent in the Northern region to 1.0 per cent in the Eastern region. The urban population grew by 50.9% in 2010 and 56.7% in 2021. Greater Accra Region has the highest percentage of urban residents (91.7%), while the Upper East Region has the lowest (25.4%) (1,5–7). A specific report about adolescent population indicated that as of 2010, 22.4 per cent of Ghana's population was

classified as an adolescent between the ages of 10 and 19, and 62% of the country's population was under 25. By 2021, there were 30.8 million people in Ghana, of whom 6.6 million are adolescents, representing 21.3 % of the total population. Of the 6.6 million adolescents, 1.7 million are girls from 10 to 14 years whilst 1.5 million are girls from 15 to 19 years. (9,21,39). As such, there appears to be a demographic dividend emerging in Ghana because of the country's changing age structure, which is typified by a dropping child population and an increasing economically active population, which also decreases the burden of dependency(92). Table 1 below shows the percentage of adolescents in rural and urban regions. From the numbers, there are small variations according to the 2014 Population and Housing Census (7).

Table 1. The per cent of the rural and urban adolescent population (GSS,2014)

	Both sexes	**Female**		**Male**	
Age group	10-19	10-14	15-19	10-14	15-19
Total adolescent population in %					
Rural	22.2	11.5	9.3	12.9	10.9
Urban	22.1	10.8	10.8	10.8	10.4

ANNEXE 2: Health status

Over the past three decades, Ghanaians' health and well-being improved significantly. Life expectancy at birth has increased from 57 years in 1990 to 66.3 years in 2019 (16,26,93). The top ten leading causes of death among females in Ghana are stroke, ischemic heart disease, HIV/AIDS, lower respiratory tract infections, malaria, tuberculosis, diarrheal diseases, cervix uteri cancer and diabetes mellitus. Tables 2 and 3 show the maternal mortality ratio and child mortality rates, indicating a downward trend in line with the improved well-being of the population(26,94,95).

Table 2. Maternal mortality ratio from 2000 to 2020

Year	2000	2005	2010	2015	2020
The maternal mortality ratio (per 100,000 live births	499	390	337	286	263

Table 3. Neonatal, Infant and Under-five mortality rates from 2000 to 2020

Indicator per 1000 live births	2000	2010	2015	2017	2019	2020
Neonatal Mortality	38	30.1	27	25.2	24	23.4
Infant Mortality	64.9	47.4	39.2	36.7	34.5	33.5
Under Five Mortality	100.1	69.8	55.4	51	47.2	45.5

Prematurity, birth asphyxia, and infection are the main causes of neonatal deaths in Ghana. 52% of children under six months are exclusively breastfed. Anaemia is a rather common condition in children under five years, 21.4% of the children in this group are stunted, and 7% of them are wasted. Pregnant women are more likely to have anaemia (45.1%) than non-pregnant women (21.7%). Also, 14.3% of non-pregnant women are obese and 24.5% of them are overweight(22). According to demographic and health surveys, newborn and infant mortality rates in Ghana are higher among births from adolescents (ages 15 to 19years)(92)

ANNEX 3: LIST OF INTERNATIONAL CMMITMENTS AND POLICIES BY GHANA TO ADOLESCENT DEVELOPEMET

Ghana was the first country in the world to sign and ratify in January & February 199O respectively(96,97), 1989 United Nations Convention on the Rights of the Child (UNCRC). UNCRC is an international protocol/instrument passed by the United Nations to protect and promote as well as realize the rights of all children globally. It ushered children's issues into the global centre space with the agenda to make children issues a global concern. Others are:

- **The 1994 'Cairo Declaration on 'Population and Development'** gave a boost to adolescent sexual and reproductive health and rights issues and place them in the central space of global development. This declaration followed the 1969 Comprehensive Population Policy which Ghana was among the few countries in sub-Saharan Africa (SSA) that adopted the comprehensive population policy(98).
- In 1998 Ghana passed the **Children's Act**. The Act serves as a legal framework for the protection of all children in Ghana. The Act defines a child as any person under the age of 18 years in Ghana. The Act placed the 'best interest of the child' first and criminalized discrimination against children based on their gender, race, age, religion, handicap, health, custom, ethnic origin, or refugee status(99).
- In 2000, the 'National Population Council' developed the '**National Adolescent Reproductive Health** Policy' which was adopted in the same year(100).
- In January 2004, the Ministry of Women & Children Affairs developed the **'National Gender and Children's Policy'** to promote the welfare of Ghanaian children and their parents(101).
- In 2009, the Ministry of Health developed '**Standards and Tools for Monitoring Adolescent & Youth Friendly Services** (AYFHS) in Ghana(102).
- In 2009, the Ministry of Health developed the **'Ghana Strategic Plan for the Health and Development of Adolescence and Young People** (2009 – 2015)(103)
- In May 2015, **the 'National Gender Policy'** was developed by the Ministry of Gender, Children & Social Protection(88).
- In 2015, the UN Global Sustainable Development Goals (SDGs) framework was launched (SDGs). SDG 3.7 states that; 'by 2030, ensure universal access to sexual and productive health care services, including, family planning, information, education, and the integration of reproductive health into national strategies and programs. Ghana is a signatory to the SDGs(39).
- In 2015, the 'Ghana National Adolescent and Reproductive Health Policy document was developed which was a revision of the 2000 policy document(104).
- In 2015, the Ministry of Gender, Children and Social Protection developed the **'Child and Family Welfare Policy'** to address child protection issues and strengthen Ghanaian families functioning. The policy strategy initiates early intervention programs, better services, data management, and empowering families, through civil society organizations collaboration. The goal of child and family welfare policy was to enhance community structures, promote children's well-being, through the prevention of abuse, and protection of children including adolescents(87).
- In 2018, The Ghana Education Service, in collaboration with the UNFPA released the '**Guidelines for Comprehensive Sexuality Education'** implementation in Ghana. This a global evidence-based intervention to promote awareness and knowledge on adolescent sexuality issues(91).

- In 2018, the Ministry of Gender, Children and Social Protection developed the '**Five Year Strategic Plan to address adolescent pregnancy** in Ghana (2018 – 2022)(92)

Annex 4,

Table. Pregnancies among adolescents 10 to 14 years recorded by the GHS from 2016 to 2020(34,105,106)

AGE GROUP(YEARS)	CASES 2016	CASES 2017	CASES 2018	CASES 2019	CASES 2020
10-14	2,325	2,585	2,968	2,110	2,865

Table 5. Regional breakdown of adolescent pregnancy cases recorded by the Ghana Health Service between 2016 and 2020

No.	REGION	2016	2017	2018	2019	2020	TOTAL (10-19yrs)	Total(10-14yrs)
1	Ashanti	18					89,856	2,165
2	Eastern						56,730	1,528
3	Central						56443	1,
4	Northern						43,533	
5	Greater Accra						49,356	
6	Western						43,921	
7	Upper East						30,444	
8	Bono East						28,284	
9	Bono						22,944	
10	Oti						19,248	
11	Northeast						16,695	
12	Savannah						16,601	
13	Western North						20,101	
14	Upper West						18,225	
15	Volta						30,333	
16	Ahafo						12,861	
	TOTAL						**555,575**	

ANNEX 5

PRACTICE POINT TO CONCEPTUALISE CONTRACEPTION AMONG ADOLESCENTS

Practice points

- Addressing the lack of desire to avoid, delay, limit, and space: In contexts in which early childbearing within or outside marriage/union is socially accepted or even encouraged, early pregnancy is likely to be intended and wanted. Thus, efforts to increase contraceptive awareness and access must be closely linked to efforts to address poverty and social disadvantage, including lack of access to education and employment opportunities.
- Addressing the lack of desire to use contraception: Many adolescents have misconceptions about contraception or do not know where & how to obtain contraceptive information and services. Comprehensive Sexuality Education (CSE) is an effective way to reach and inform adolescents about contraception. It should be complemented by reaching out to parents, teachers and other gatekeepers.
- Addressing the lack of self-assurance and independence to obtain and use contraception: Adolescents may not have the confidence to seek contraception; they may be constrained in making independent decisions on contraceptive use. Efforts to build adolescent girls' abilities to make decisions and negotiate decisions about childbearing and contraceptive use are required, as are efforts to engage their partners and others in the family who could influence their decision-making.
- Overcoming barriers to accessing contraception: Laws and policies prevent the provision of contraception based on age or marital status, in many countries. Critical to sound adolescent-friendly service provision are laws and policies that support their access to contraception regardless of age or marital status, and without third-party authorization/notification.
- Developing and maintaining a workforce of competent, caring, and committed health service providers: The way in which health services and the service providers who deliver contraceptive services are often not adolescent friendly. There is a need to overcome health service provider biases and misconceptions regarding contraceptive use by adolescents. The contraceptive needs of adolescents are diverse and evolving; complementary strategies must be used to respond to the differing needs and preferences of adolescents. Additionally, programmes must address the needs of special population of adolescents (e.g. those with disabilities, migrants, and refugees).

Note: An annotated list of WHO's guidelines on contraception as well as a list of complementary publications from WHO and other organizations are available in WHO's synthesis of recommendations on adolescent sexual and reproductive health [33[33]].

Source: Chandra et. al. (2020)