

**PREVALENCE AND FACTORS ASSOCIATED WITH MODERN
CONTRACEPTIVE USE AMONG FEMALE ADOLESCENTS AGED 15-19
YEARS IN KENYA**

BY

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DECLARATION

Declaration by Candidate

This document is my original work and has not been presented for the award of a degree in any other university.

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DEDICATION

I dedicate this work to my late parents, Rev. Daniel Salat and Mrs. Norah Salat, whose motivation and belief in my potential inspired me to strive for the best in life. Though you are not here to witness the fruits of your efforts, your love for education and the values you instilled in me remain a lasting legacy in my heart.

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ABSTRACT

Adolescent sexual and reproductive health (ASRH) contributes to the global burden of sexual ill health, with unmet needs persisting worldwide. Kenya's government reaffirms its commitment to increasing the contraceptive prevalence among adolescents aged 15-19 to 55% by 2025 from the current 10%. Only 43.8% of married and 36.9% of sexually active unmarried adolescents (15-19) used any method of contraception as of 2022 in Kenya. The objectives were; to determine the demographic and social characteristics (Age, education, marital status, parity, economic status), and prevalence of modern contraceptive use among female adolescents and to identify associated factors. The study utilized secondary data from Kenya's 2021 Performance Monitoring for Action (PMA) survey. The data extraction process focused on identifying and filtering female adolescents aged 15-19 who met specific inclusion criteria: sexually active, married or unmarried, and present during the survey period. After applying these criteria, the final weighted sample consisted of 344 respondents. Descriptive analyses were conducted to calculate the mean values and proportions for the relevant variables. Bivariate analysis was carried out to determine the association between outcome (modern contraceptive use) and exposure variables. All variables with a p -value >0.2 at the bivariate level were subjected to a multivariable binary logistic regression model. Stepwise backward elimination unconditional logistic regression was used to develop the final model. All variables with p -values >0.05 at a multivariable level were regarded as independently associated with modern contraceptives. According to the results of the 344 sexually active girls, 169 were using modern contraceptives, giving a prevalence of 49.1% (95% CI: 43.8- 54.4). The mean age was 17.8 years (SD $\pm$ 1.7), with the age group 18-19 years contributing 64.8% of the respondents, with a prevalence of 57.4%. Those who reported being married or staying with a partner as if married had 46.3% using modern contraceptives, while those with secondary and higher education had 51.9% using modern contraceptives. The odds of modern contraceptive use were 2.0 times higher among those adolescents aged 18-19 years (AOR 2.0, 95% CI, 1.21-3.45, $p<0.005$) compared to adolescents aged 15- 17 years. Those who reported having one child had 2.2 odds of using modern contraceptives compared to those who had never had a child before (AOR 2.2, 95% CI, 1.17-4.24, $p<0.05$). Other factors that were independently associated with modern contraceptive use include household wealth quantiles (AOR 4.9 CI 95%, 2.08-11.29, $p<0.05$) and the perception that the community's view a few adolescents using modern contraceptives were promiscuous (AOR 0.4. 95% CI, 0.2-0.78, $p<0.05$). In conclusion Age, education, and economic resources have a positive impact on modern contraceptive use, while community perceptions have a negative influence. These factors are key in shaping the contraceptive behavior of adolescents in Kenya. Recommending this a targeted comprehensive approach encompassing education on sexual reproductive health, awareness-raising, and community engagement is paramount in empowering adolescents to make informed decisions about their reproductive health.

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ACRONYMS AND ABBREVIATIONS

ASRH	Adolescent Sexual Reproductive Health
CQ	Client Exit Interview Questionnaire
CSE	Comprehensive Sexuality Education
EA	Enumeration Area
ECP	Emergency Contraceptive Pill
FP	Family Planning
FQ	Female Questionnaire
HIV	Human Immunodeficiency Virus
HQ	Household Questionnaire
IREC	Institution Research Ethics Committee
IUCD	Intra Uterine Contraceptive Device
KDHS	Kenya Demographic Health Survey
LMIC	Low-middle Income Counties
mCPR	Modern Contraceptive Prevalence Rate
ODK	Open Data Kit
OR	Odds Ratio
PMA	Performance Monitoring for Action
PPS	Probability Proportion to size
RE	Resident Enumerator
SBC	Social and behavioural change communication
SDGs	Sustainable Development Goals
SDP	Service Delivery Points
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
YFS	Youth-Friendly Services

DEFINITION OF TERMS

Adolescence	Physical and psychological development are in transition during adolescence. It is the interval, usually lasting between 10 and 19, between puberty and adulthood.
Contraceptive	A contraceptive refers to a method, medication, or medical procedure used to interfere with or disrupt the natural reproductive processes of ovulation, fertilization, and/or implantation. The purpose of contraceptives is to prevent pregnancy resulting from sexual activity.
Puberty	A child's body changes into an adult body capable of sexual reproduction during the puberty phase.
Myth	A traditional or legendary story, typically featuring some entity, hero, or event, with or without a specific basis in fact or a logical explanation.
Reproductive Health	Reproductive health encompasses more than the mere absence of illness or disability. It encompasses the complete physical, mental, and social well-being of individuals in relation to their reproductive system, functions, and behaviors.
Empowerment	PMA's empowerment measure focuses on dimensions such as decision-making autonomy, economic and financial competence, sexual and reproductive autonomy, and the flexibility to act on one's contraception preferences.

CHAPTER ONE

INTRODUCTION

1.1 Background

Adolescence is a vital stage for the development of identity and is usually marked by dangerous activities like unprotected sexual activity that could lead to unwanted pregnancies. (Kar et al., 2015). While some teenage females may face pressure to get married and start a family, others may have few opportunities for further education and employment. Others are unable to access contraceptives, while others lack knowledge of how to prevent pregnancy (Chandra-Mouli et al., 2013). According to a study by Morris and Rushwan (Morris & Rushwan, 2015), Adolescent sexual and reproductive health (ASRH) has a substantial impact on the global prevalence of sexual-illness.

Adolescent sexual and reproductive health (ASRH) needs are generally unmet worldwide. (Casey et al., 2020). In Sub Saharan Africa (SSA), over 50% of adolescents have unmet needs for contraception, leading to unintended pregnancies and associated health risks (Michael et al., 2024). About 14 million adolescents who are not using modern contraception and want to avoid conception have the majority of unintentional pregnancies, accounting for a large percentage of 77% as reported by (Riley & et al., 2019). According to Darroch (2013), modern contraception and birth spacing have the potential to avert 1.5 million maternal deaths and almost two million neonatal deaths per year, improving global economic development. (Darroch, 2013). The World Health Organization (WHO) reports that over 16 million young girls between the ages of 15 and 19 give birth yearly, making up nearly 11% of global births. (Sserwanja et al., 2021). This highlights the morbidity and mortality burden related to teenage pregnancies, which could have been otherwise prevented through the use of contraceptives. With 101 births per 1,000 teenage girls, Sub-Saharan Africa has the

highest adolescent birth rates in the world. This is far higher than the global average of 45 births per 1,000 females (Michael et al., 2024).

Sub-Saharan Africa has the highest adolescent birth rates globally, with 101 births per 1,000 adolescent girls, significantly exceeding the world average of 45 births per 1,000 girls (Michael et al., 2024) A study by Hindin et al published in (Hindin, M. J., 2019) found that unplanned births during adolescence are associated with poor newborn outcomes as well as increased mother illness and mortality rates, all of which are harmful to health. While there have been major efforts to provide contraception, teenagers in developing nations continue to face numerous obstacles when attempting to obtain contraception. This is due to lack of awareness, limited/unavailability of medical services, cultural and religious opposition, and restricted access to medical treatment.(Morris & Rushwan, 2015)

The number of teenage pregnancies in Low-middle Income Countries (LMIC) is estimated to be 21 million annually; half of these pregnancies are unplanned, and unsafe abortions account for 55% of unplanned pregnancies. These numbers demonstrate the greatest unmet need for safe abortion and contraception.(Jacqueline E. Darroch, 2017)

. The result from these outcomes could have contributed to the Long-term socioeconomic and health effects, such as intergenerational poverty and subpar maternal and child health outcomes. Teenage girls are found to be using contraceptives at comparatively low rates in developing countries despite the fact that young women have a high fertility rate (Santelli et al., 2017). Most teenagers, married or single, frequently lack access to reproductive healthcare services in economically challenged nations, which contributes to low rates of contraception use. This might be ascribed to the lack of access to affordable contraceptive methods and knowledge, as noted in a research by Chandra-Mouli et al. (Chandra-Mouli et al., 2014)

Some cultural practices, such as early child marriage and the emphasis on virginity, hinder adolescents' ability to make informed reproductive health decisions, particularly among married girls who may prioritize pregnancy (Michael et al., 2024). Another obstacle observed in SSA is a lack of knowledge; teenagers without a formal education are less likely to use contraceptives, which is associated with reduced confidence and self-esteem when it comes to making decisions about their reproductive health. In order to avoid unwanted pregnancies and enhance health outcomes, many teenagers do not have access to reliable information about reproductive health and contraceptive options (Michael et al., 2024). This study aims to pinpoint sexual education gaps that ultimately impact young adolescents' knowledge, attitudes, and behaviors around the use of contemporary contraceptives in Kenya.

In Kenya, the percentage of unmarried and sexually active teenage girls who use modern contraceptives has remained low at 36.9% (KNBS and ICF, 2023), putting the girls at risk for getting pregnant and getting sexually transmitted infections.

Currently, modern contraceptive use among unmarried and sexually active adolescent girls in Kenya has remained low at 36.9% (KNBS and ICF, 2023), and has put the girls at risk of becoming pregnant and contracting sexually transmitted infections (Kananura et al., 2021). In Low-Middle Income Countries (LMICs), meeting the contraceptive needs of teenage girls would drastically lower the frequency of unintended pregnancies among girls between the ages of 15 and 19. (Kananura et al., 2021). Studies have shown that the number of unintended pregnancies among adolescent's girls aged 15 to 19, would drop by 60%, from 10 million to 4 million, if the contraceptive needs were sufficiently fulfilled (Riley & et al., 2019). Adolescent girls in Kenya aged 15 to 19 years who planned or wanted to postpone establishing a family and were sexually active, whether married or single, required contraception (Darroch et al., 2018).

According to a study published in the Journal of Adolescent Health, teenage contraceptive use is higher among adolescents where there is parental support, access to contraception, and communication with healthcare experts (Gage, A. J., 2018) In order to encourage increased use of contraceptives and lower the number of unwanted pregnancies and STIs among teenagers, it is imperative to understand the factors associated with their use.

In 2017, the Kenyan government reaffirmed its dedication to expanding access to youth-friendly services and enhancing current service delivery to give correct information and services in line with the National Adolescent Sexual and Reproductive Health Policy. By doing this, it was hoped to increase the prevalence of contraception among female teenagers (15–19 years old) from 40% to 50% by 2020 and 55% by 2025.(GoK & FP2020, 2017). According to the 2022 KDHS, 40.7% of currently married adolescents and 36.9% of sexually active unmarried adolescents were using any form of contraception, which falls significantly below the set targets (KNBS and ICF, 2023).

Over the years, the Kenyan government has made substantial improvements to its reproductive health services. To ensure that all citizens have access to high-quality reproductive health care, the country has established legislation and regulations. But there were still a lot of barriers that made it very difficult to provide these services. Increasing adolescent pregnancy rates, restricted access to contraception, and a lack of medical personnel, particularly in remote regions, were identified as some of the difficulties. Despite these obstacles, the government implemented policies to narrow the reproductive health services gap. These include strengthening the healthcare system, providing more funds for initiatives promoting reproductive health, and training healthcare professionals. Overall, while there is still room for improvement,

Kenya is making strides towards ensuring that everyone has access to the reproductive health services they need. By reviewing data available from various surveys done by the Government of Kenya to establish the effectiveness of the interventions put in place, this study seeks to evaluate the prevalence and factors associated with modern contraceptive use among female adolescents to inform policy and programmatic decision-making.

1.2 Problem Statement

Globally, there are estimated 121 million pregnancies among all women of reproductive age (15-49), among them, approximately 48% are unplanned. Approximately 21 million pregnancies are among adolescents (15-19) from Low-Medium-Income-Countries (LMIC) where half of it are unintended and about 55% of those pregnancies ends up in abortions which are usually unsafe (Michael et al., 2024). In Kenya, $\approx 15.8\%$ adolescents (15-19 yrs) have ever been pregnant (KDHS 2022) out of which, $\sim 2/3$ (about 65-66%) of adolescent pregnancies are unintended (Guttmacher 2019). Teenage pregnancies comes along with consequences. They include; increased maternal mortality, health risks for both mother and child, reduce education attainment and drop out, stigma and social exclusion (Jakubowski et al., 2025)

Adolescents have unique reproductive health needs and are disproportionately affected by negative reproductive health outcomes compared to adults. In Kenya, female adolescents aged 16–18 years' experience high rates of unintended pregnancies and sexually transmitted infections (STIs), which are key contributors to morbidity, mortality, and school dropout. A study by Kungu et al. (Kungu et al., 2020) reported that teenage pregnancies accounted for approximately 18% of mortality and school desertion in this age group, underscoring the significant public health burden.

Despite the availability of modern contraceptive methods and the known protective benefits of comprehensive sexuality education, access to these services remains limited among adolescents in many parts of Kenya. This gap in preventive services contributes to the continued rise in STIs and unintended pregnancies. The situation was further exacerbated by the COVID-19 pandemic, during which disruptions to healthcare services, school closures, and reduced outreach contributed to increased adolescent vulnerability (Calhoun et al., 2022). These patterns highlight the impact of public health emergencies on vulnerable populations' access to essential health services.

The purpose of this study is to look into the epidemiological aspects related to teenage girls' use of contemporary contraceptives in Kenya. The study specifically attempts to ascertain the sociodemographic characteristics and prevalence of uptake as well as the obstacles that restrict access to and use of contemporary contraceptives. The study's conclusions will help guide the development of focused interventions and policies that will increase adolescents' access to and use of reproductive health services, lowering the prevalence of unwanted pregnancies and their consequences in this demographic.

1.3 Objectives

1.3.1 Broad objective

To determine the prevalence and factors associated with the use of Modern contraceptives among female adolescents aged 15 to 19 in Kenya.

1.3.2 Specific objectives

1. To describe the socio-demographic characteristics of adolescent girls aged 15-19 years using modern contraceptives
2. To determine the prevalence of modern contraceptive use among adolescent girls aged 15-19 years in Kenya

3. To identify the factors associated with the modern contraceptive use among 15-19-year-old girls in Kenya

1.4 Research Questions

1. What are the socio-demographic characteristics of female adolescent girls 15-19 years old using modern contraceptives in Kenya?
2. What is the prevalence of modern contraceptive use among female adolescents 15-19 years old in Kenya
3. What are the factors associated with modern contraceptive use among adolescent girls (15-19 years) in Kenya?

1.5 Justification

The adolescent years are a critical period of development, and it's important to prevent unintended pregnancies and promote healthy sexual behaviors during this time. Avoiding unwanted pregnancies throughout adolescence can help advance beneficial health results and enhance complete well-being, for both short and long terms. Modern contraceptives are an essential public health measure that can reduce maternal fatalities and avoid unintended pregnancies at a reasonable cost (Thiongo et al., 2022).

Research on the factors influencing contemporary contraceptive use among Kenyan female teenagers would be beneficial for understanding the specific barriers and facilitators to obtaining and using contraception in these situations. It is essential to develop targeted programs to enhance the use of modern contraceptives to address the unique reproductive health needs of this population. To meet the specific reproductive health needs of this population, creating targeted interventions to increase the use of modern contraceptives is of great importance. To reduce the prevalence of STIs and unintended pregnancies, and improve adolescents' general health and well-being, it is essential to understand the factors that influence their use. The findings of this

investigation will aid in coming up with age-appropriate Comprehensive Sexual Education (CSE) programs in the field of education. Experts in social behavior change and communication will also benefit from the material, which they may use to develop communication plans for teenagers and the general public. The findings will help the county governments boost the health systems by providing youth-friendly services, training for healthcare professionals, and information on contraception. The findings of this study will provide important information about the unique reproductive health requirements of Kenyan adolescents, assisting policymakers in determining how best to engage this demographic, enhancing their ability to contribute to the country's development, and ultimately helping Kenya achieve its 2030 Vision for a Healthy Nation.

This study utilizes secondary data from the Performance Monitoring for Action (PMA) survey. Although various government agencies and organizations conduct periodic surveys, the data collected is often underutilized in informing policy decisions. This research highlights the importance of effectively using available data to support evidence-based policymaking and guide actionable interventions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature evaluated in this study was located and obtained using a systematic and structured search approach. A comprehensive search method was used to collect relevant peer-reviewed papers, national reports, and grey literature on the prevalence and factors related with modern contraceptive usage among female adolescents in Kenya and other similar countries. The literature evaluated in this study was located and obtained using a systematic and structured search approach. A comprehensive search method was used to collect relevant peer-reviewed papers, national reports, and grey literature on the prevalence and factors related with modern contraceptive usage among female adolescents in Kenya and other similar countries.

2.2 Contraceptive use Among Adolescents

The reproductive health of young and adolescent women has become a major concern for society and policymakers due to the significant impact early childbearing can have on their future opportunities. These women are at a pivotal stage in their lives, just beginning their reproductive years and laying the foundation for their futures. As a result, increasing teenage access to and knowledge of reproductive health services is a top priority for reproductive health researchers and program designers. By delaying childbearing, young women can increase their chances of finishing their education, pursuing careers, and giving birth during the healthiest periods of their lives. This approach not only benefits the individual but also leads to improved socioeconomic outcomes for entire communities and societies (Sedgh et al., 2016)

Teenagers' usage of contraceptives is influenced by a wide range of interpersonal and individual factors. Wealth, education, decision-making abilities, marital support, and interpersonal communication are a few of these elements (Asaolu et al., 2017).

Wealthier and more educated young women tend to have better access to family planning information and contraceptive services, allowing them to make informed decisions about their reproductive health. In contrast, those from poorer backgrounds often face barriers to accessing these resources, leading to lower contraceptive use and higher rates of unintended pregnancies. Women's ability to make autonomous decisions regarding their reproductive health is a critical factor in determining whether they use contraception. However, decision-making can be heavily influenced by social norms, partner support, and access to accurate information.

A study conducted by (Harrington et al., 2021) highlighted that many teenagers are acutely aware of the connection between teen pregnancy and future socioeconomic challenges. Many adolescents recognize that an unintended pregnancy during their teenage years could hinder their ability to complete their education and lead them to poverty. Adolescent pregnancies are often seen as a burden not only on the young mother but also on her family, as they create financial strain and limit the ability to meet basic needs like food and shelter. This perception has led many young women to view contraception as a way to protect their future economic and educational prospects.

Despite the potential benefits of contraceptive use, significant social barriers continue to prevent many adolescents from accessing and using birth control. One of the most pervasive barriers is the stigma associated with contraceptive use among young women. Makenzius et al. noted that adolescent girls often face social pressures that make it difficult for them to openly discuss or use contraception. In many communities, there

is a perception that girls who use contraceptives are promiscuous, which discourages them from seeking out these services. In fact, some young women reported that they would rather face the consequences of an unintended pregnancy than be labeled as sexually active or "spoiled" by their communities (Makenzius et al., 2019) This stigma is a significant deterrent to contraceptive use, as the fear of judgment and social repercussions outweighs the perceived benefits of birth control. This study seeks to find out the adolescents' perception and the community's view on modern contraceptives to come up with policy development for adolescent health. It will also guide tailored education programs and community and stakeholder engagement in intervention planning.

In some cases, adolescents believe that becoming pregnant would result in fewer societal repercussions than being discovered using contraceptives. Harrington et al found that in certain communities, adolescent contraception use is seen as more socially acceptable than adolescent pregnancy, but both are still stigmatized and considered detrimental to families(Harrington et al., 2021) This highlights the complex social dynamics surrounding contraceptive use and the need for interventions that address not only access to contraception but also the societal attitudes that contribute to stigma. To increase contraceptive use among adolescents, it is crucial to create environments where young women feel empowered to make decisions about their reproductive health without fear of judgment.

Geographic location also plays a significant role in contraceptive use among adolescents, with disparities in access to contraception between urban and rural areas. In rural regions, adolescents often face additional challenges, such as limited access to healthcare facilities, fewer family planning services, and cultural barriers that

discourage contraceptive use. A Ugandan study by Sserwanja et al. emphasized the need to expand access to modern contraceptives for female adolescents, particularly in rural areas where young women are more likely to be disadvantaged (Sserwanja et al., 2021). The study called for targeted interventions that will consider the unique circumstances of adolescents in these regions, including their wealth indices, marital status, and geographic location. Peer-mediated interventions and community-based programs could help bridge the gap in contraceptive access for these vulnerable populations.

In sub-Saharan Africa, the prevalence of using contemporary contraceptives among female teenagers between the ages of 15 and 19 varies greatly between nations and regions. Adolescent girls who are sexually active utilize contraceptives at a low average rate of 25.4%. But there are significant variations among nations. For example, Chad reports a very low contraceptive use rate of only 4%, while Namibia has a significantly higher rate of 60.5% (Michael et al., 2024). These geographical differences emphasize how crucial it is to provide interventions that are specifically designed to meet the requirements of adolescents in each nation. This variation is further demonstrated by studies conducted in the Democratic Republic of the Congo (DRC) and Sierra Leone. While modern contraception use in the DRC varied, ranging from 0.1% in 2007 to 3.3% in 2013/14, Sierra Leone had a rise in the modern contraceptive prevalence rate (MCPR) from 5.9% in 2008 to 21.0% in 2019 (Olal et al., 2023).

The Sustainable Development Goals (SDGs) were created by the UN in 2015 to address the issues related to sexual and reproductive health (SRH) that adolescents experience. With national plans and actions incorporating reproductive health into more comprehensive healthcare policies, Goal 3.7 especially focuses on making sure that by

2030, everyone has access to family planning, information, and education (David & Amey, 2020). Addressing adolescents' unmet needs requires a global commitment to improving reproductive health outcomes, especially in areas where the use of contraceptives is still low.

Countries like Kenya have made notable progress in achieving family planning goals. The number of women in Kenya who use modern contraceptives has increased significantly, rising from 53.2% in 2014 to 60.8% in 2021 (International center for Reproductive health Kenya (ICRHK), 2022). The government's and non-governmental groups' combined efforts to increase access to contraceptive services, encourage family planning education, and establish youth-friendly healthcare facilities are responsible for this success. Kenya's achievements can be used as a template by other nations looking to increase adolescent contraception use and lower the rate of unwanted pregnancies. Nonetheless, the purpose of this study is to ascertain the sociodemographic traits, the factors linked to modern contraceptives, and the prevalence of modern contraceptives among young adolescents.

2.3 Healthcare Services

The use of contemporary contraception, especially among adolescents, has been shown to be positively impacted by a number of healthcare indicators, including service delivery, health financing, and a skilled health workforce (Atchison et al., 2018). The use of contraceptives by young adolescents is influenced by a variety of factors associated to healthcare facilities, including community support networks, provider competency, accessibility of services, and resource availability. Together, these elements can help or impede teenagers' access to and use of contemporary forms of birth control.

The availability and closeness of family planning services is one of the most important factors affecting the usage of contraceptives (Kawuki et al., 2022). If there are medical facilities nearby that provide current contraceptive options, adolescents are much more likely to use them. According to a study by Manet et al., (2023) adolescents who live close to family planning services are more likely to use contraceptives because accessibility lowers the logistical obstacles that young people frequently encounter, like time and money constraints and transportation costs. Conversely, in many parts of sub-Saharan Africa, including Uganda, long travel times to healthcare facilities have been shown to deter adolescents from seeking contraceptive services. Towongo & Kelepile, (2024) found that in Uganda, community access to health facilities was negatively impacted by geographic challenges, with adolescents living in rural areas less likely to seek contraception due to the long distances required to reach healthcare providers. This issue of physical accessibility remains a major challenge, particularly in rural and underserved areas where healthcare infrastructure is weak, and transport options are limited.

The cost of services is a major factor in influencing whether or not teenagers look for and use modern contraceptives, in addition to geographic accessibility. It has been demonstrated that providing free or heavily discounted services greatly increases the usage of contemporary methods of contraception among teenagers, particularly those from low-income families. Teenagers who cannot pay the entire cost of contraceptives are less likely to use them, which can lead to an increase in STIs and unwanted births. The provision of affordable family planning services can alleviate these financial barriers and ensure that all adolescents, regardless of socioeconomic status, have access to the reproductive healthcare they need. Asaolu et al., (2019) emphasize that when family planning services are subsidized or provided free of charge, contraceptive uptake

increases, as adolescents are more likely to visit healthcare providers and seek information about contraceptive options. This study seeks to identify gaps in access to ASRH and contraceptive services that could be addressed through feasible interventions that are acceptable to adolescents.

Young people's usage of contraceptives can be significantly increased by healthcare practitioners who are well-versed in family planning and adolescent reproductive health. Teenagers are more inclined to interact and trust medical professionals who are educated about contemporary methods of birth control and who can provide tailored advice depending on each patient's needs. Manet et al., (2023) highlight that healthcare providers who are equipped with specialized training in adolescent reproductive health are better able to communicate effectively with young people, addressing their concerns, dispelling myths, and providing accurate information about contraceptive options. This kind of training is particularly important in settings where cultural stigmas around adolescent sexuality may discourage open discussions about contraception.

In order to promote contraceptive use, health professionals must undertake continuous training in family planning services, particularly with a focus on adolescents. Training healthcare providers to improve their interaction with young people can significantly enhance service uptake, as adolescents are more likely to return for follow-up visits and continue using contraceptives when they feel respected and supported by their healthcare providers (Towongo & Kelepile, 2024). Adolescents who receive comprehensive, youth-friendly services are also more likely to discuss their contraceptive needs with healthcare providers, peers, and partners, leading to increased awareness and uptake of contraceptive methods. Therefore, improving the quality of

healthcare services through provider training and ensuring that these services are youth-friendly is essential for improving contraceptive use among adolescents.

The availability of family planning resources in healthcare institutions is essential for guaranteeing that teenagers have access to a variety of contraceptive alternatives, in addition to the significance of healthcare providers' competency. Modern contraceptives, such as oral contraceptives and condoms, as well as long-acting reversible contraceptives (LARCs) like implants and intrauterine devices (IUDs), must be readily available in healthcare institutions. When healthcare facilities are consistently understocked, adolescents may be forced to choose less effective contraceptive methods or forgo contraception altogether, increasing their risk of unintended pregnancies. (Towongo & Kelepile, 2024). Therefore, health systems must ensure a reliable supply chain for contraceptive products, as well as the provision of a variety of methods to meet the diverse needs of adolescents.

Another key factor is the shift from private to public health facilities as the primary sources of family planning services for adolescents. In the late 1990s, private health facilities dominated the family planning options available to adolescent females, but by 2003, public health facilities had surpassed them as the main providers. This shift underscores the critical role of public healthcare systems in expanding access to family planning services for adolescents, particularly in low-resource settings where private healthcare may be too expensive for many young people. Since then, public health clinics have continued to serve as the primary source of family planning information and services for adolescents, particularly in rural and underserved areas (Obare et al., 2011). However, the capacity of these public health facilities must be strengthened to meet the specific needs of adolescents effectively. This includes improving service

delivery, increasing healthcare worker training, and ensuring that health facilities are adequately equipped with the necessary resources to provide a full range of contraceptive options.

Community support also plays a significant role in facilitating or hindering contraceptive use among adolescents. In many contexts, adolescents face stigma and discrimination when attempting to access reproductive health services, particularly in conservative communities where discussions of adolescent sexuality are taboo. Healthcare providers must be trained to offer confidential, non-judgmental, and supportive services to adolescents to counteract these societal barriers. (Manet et al., 2023). Community outreach programs that raise awareness about the importance of adolescent reproductive health and challenge harmful cultural norms can also help increase the acceptance and utilization of contraceptive services among young people.

2.4 Cultural Practices and Use of Contraceptives

Around the world, opinions regarding sexual and reproductive health (SRH) and the use of contraceptives are greatly influenced by cultural traditions and societal conventions. Access to contraception may be made easier or more difficult by these firmly rooted attitudes and practices, especially for young women and adolescents. Teenage sex is deeply disliked in many cultures, and this is reflected in the stigmatization of sexual health problems, particularly those associated with HIV and STIs. Adolescent sexual and reproductive health (ASRH) is rarely discussed freely due to the taboo surrounding sexual health conversations. This results in the perpetuation of misinformation and limited access to accurate health services and education. The societal stigma attached to sexual activity, especially for unmarried individuals and sexually active girls and women, creates barriers to accessing contraceptives and other

reproductive health services. This judgmental view, often supported by cultural norms, is particularly pervasive in many regions of the world (Bearinger et al., 2007).

These community attitudes toward contraception can have a profound effect on young people's willingness to seek out or use contraceptive methods. A study conducted by Manguro et al., (2021), found that community disapproval of contraceptive use among adolescents often discourages young people from accessing these services. Sometimes the criticism is so great that young people completely reject contraceptive techniques, which raises the risk of STIs and unwanted births. Cultural customs like early marriage and female genital mutilation (FGM), which are strongly associated with early sexual engagement in some cultures, frequently serve to reinforce these views. For example, studies in Kenya have linked early marriage and female genital mutilation to an early sexual debut, which can make it more difficult to obtain reproductive health services like contraception (Manguro et al., 2021).

In many sub-Saharan African (SSA) countries, cultural beliefs around family size also play a significant role in shaping contraceptive use. The cultural preference for large families often discourages married adolescent girls from using contraceptives, as they are expected to prioritize childbearing. This cultural expectation is particularly strong in rural areas, where the value placed on large families remains high. Married teenage girls, many of whom have been forced into early marriages, are often deprived of education and empowerment, leaving them ill-equipped to understand their reproductive health rights or make informed decisions regarding contraception (Michael et al., 2024). These cultural norms not only limit the autonomy of young women but also perpetuate cycles of poverty, as early marriage and high fertility rates often go hand in hand with limited educational and economic opportunities.

Religious beliefs are another important factor influencing attitudes towards contraception. In some communities, misinterpretations of religious doctrines, particularly within Islam, contribute to resistance to family planning and contraceptive use. For instance, some Muslims interpret religious texts as opposing contraception, which has led to lower contraceptive uptake within these communities. This resistance is further compounded by patriarchal norms that limit women's decision-making authority, particularly regarding their fertility and reproductive health (Abdi et al., 2020). The societal perception of fertility as a measure of a woman's value in some cultures adds an additional layer of complexity, making it difficult for women, especially adolescent girls, to exercise control over their reproductive choices.

Beyond religious beliefs, myths and misconceptions about contraception are widespread among adolescents and adults alike. Young people are frequently discouraged from utilizing contemporary methods of contraception by these misunderstandings. For instance, it's a common misconception in some societies that utilizing contraception promotes promiscuity, particularly among young women and girls. Because of this, husbands and community leaders might dissuade younger wives from using contraceptives, which would further restrict access to reproductive health care by perpetuating a cultural stigma (Michael et al., 2024). This stigma is often particularly strong in conservative or rural areas, where traditional values around fertility and gender roles dominate social expectations. Additionally, misinformation about the potential side effects of contraception, such as fears that it can cause infertility or harm a woman's reproductive organs, contributes to the low uptake of contraceptives. In Kilifi County, Kenya, a study revealed that many women believed that contraceptive use could damage their uterus or reproductive system, making it difficult or impossible to conceive in the future (Sedlander et al., 2018).

Culture's influence on SRH goes beyond contraceptive use to affect broader attitudes toward sexual behavior. Societal expectations regarding sexual roles, emotions, and expressions of masculinity and femininity are shaped through a process known as sexual socialization (Parker, 2015). From a young age, individuals are exposed to societal norms that define appropriate sexual behaviors for men and women, with these lessons often learned within the context of their families, communities, and broader social networks. These culturally ingrained beliefs play a pivotal role in shaping an individual's sexual identity and behavior, including their approach to contraception and family planning. Research has shown that thought patterns, emotions, and behaviors related to sex are formed early in life and are often heavily influenced by the cultural environment in which a person grows up (Triandis & Hofstede, 1993). These early experiences influence not only sexual behavior but also attitudes toward SRH, including the perception of risks, responsibility, and the acceptability of contraceptive use.

Cultural norms around virginity also have significant implications for contraceptive use, especially in the context of early marriage. In many cultures, virginity is highly valued, and young brides may feel pressured to conceive soon after marriage to fulfill their roles as wives. This pressure to prove fertility can reduce the likelihood of contraceptive use, as newly married adolescent girls may feel obligated to prioritize childbearing over their own reproductive health (Michael et al., 2024). Additionally, cultural practices such as polygamy, which are prevalent in some regions, further complicate sexual and reproductive health outcomes. In polygamous relationships, unprotected sex and multiple sexual partners increase the risk of STIs and unintended pregnancies, yet these behaviors are often accepted or even encouraged within the cultural context (Kioli, 2012).

The lack of autonomy and decision-making power for married adolescent girls is another significant barrier to contraceptive use. Early marriage often places girls in subordinate roles within their relationships, making it difficult for them to negotiate contraceptive use with their partners. These girls may lack the confidence, knowledge, or social support to advocate for their reproductive health rights. Moreover, cultural expectations regarding gender roles and sexual behavior often discourage women from taking control of their fertility, leaving decisions about contraception in the hands of their husbands or male relatives (Michael et al., 2024). The absence of support from family members and community leaders can further isolate young married girls, making it even more challenging for them to access the information and resources they need to make informed decisions about contraception and family planning (Michael et al., 2024)

Social networks also play a crucial role in shaping attitudes toward contraceptive use. The approval or disapproval of family planning within a person's social network can influence their perceptions and decisions. While awareness of contraceptives may be widespread in some communities, this does not always translate into actual use. Social network dynamics, including the influence of peers, family, and community leaders, can either encourage or discourage the use of contraception depending on the prevailing attitudes within the network (Ochako et al., 2015). In many cases, even when individuals are aware of the benefits of contraception, they may be reluctant to use it if they fear judgment or disapproval from their social circle. This study seeks to identify the social networks preferred and design health education programs with credible information on contraceptives that are acceptable among the young adolescents.

2.5 Adolescent, Sexual and Reproductive Health Education

Recognizing the need of giving youth the information and resources they need to make educated decisions regarding their sexual and reproductive health, the Kenyan government has taken action to promote sex education. But in spite of these initiatives, policies in the school sector have mostly supported a sex education program that emphasizes abstinence alone. Significant gaps exist in the curriculum's coverage of a variety of topics due to this constrained framework, especially in areas like consent, contraception, and healthy relationships (Asare et al., 2017). As a result, adolescents often lack comprehensive knowledge about reproductive health, contraception, and family planning. This gap in education is especially problematic in a context where early child marriage is still prevalent.

Early child marriage frequently leads to the discontinuation of formal education for adolescent girls, further limiting their understanding of reproductive health issues. When girls marry at a young age, their educational opportunities are curtailed, and they are often thrust into roles focused on childbearing rather than personal development. This dynamic reinforces cycles of poverty and restricts access to crucial reproductive health services and information. As a result, young married girls are often less aware of contraceptive methods and less empowered to make decisions regarding their sexual and reproductive health (Michael et al., 2024). This situation underscores the importance of ensuring that girls stay in school longer, as education is a key factor in expanding their knowledge and access to reproductive health services.

In Kenya, radio has emerged as a vital medium for disseminating family planning information to young girls. The Kenya Population Council found that radio broadcasts were a common way for adolescent girls to hear about family planning, with the

frequency of these broadcasts increasing over time. The growing reliance on radio for information dissemination is partly due to the fact that radio is more affordable and accessible than television or newspapers, especially in rural and low-income areas (Obare et al., 2011). This trend highlights the role of mass media in promoting reproductive health awareness and the need for targeted communication strategies that leverage popular and accessible platforms.

Adolescents must receive comprehensive sexuality education (CSE) that is developmentally, age, and scientifically appropriate in order to make educated decisions regarding their sexual and reproductive health. Beyond the abstinence-only approach, CSE provides youth with knowledge on gender equality, sexual consent, contraception, and STI prevention. Teenagers who lack access to thorough and accurate information on contraception are more likely to rely on false beliefs, which might discourage use or result in irregular and discontinuing use (Chandra-Mouli et al., 2017). For young people to make educated decisions, utilize contraceptive techniques appropriately, and engage in responsible sexual conduct, it is crucial that they have the knowledge necessary to comprehend family planning services (Manet et al., 2023).

Teenage girls' access to reproductive health treatments is restricted by cultural norms around early marriage, which also serve to perpetuate the poverty cycle. It is expected in many societies that young women will put having children before going to school. In addition to reducing females' access to education, this cultural norm also keeps them ignorant about family planning choices (Michael et al., 2024). Early marriage frequently prevents girls from receiving a formal education, which hinders their ability to acquire the information and self-reliance necessary to make wise choices regarding their reproductive health, including the use of contraception. Adolescent reproductive

health results are severely hampered by the combination of cultural norms, early marriage, and a lack of educational possibilities.

Parental influence is another crucial factor in shaping adolescent attitudes and behaviors around sexual and reproductive health (SRH). According to social cognition theory, parents act as models for teaching behavior, while Bronfenbrenner's ecological systems theory suggests that a child's development is shaped by various environmental factors, including family, education, and broader societal norms (Perron, 2018). Parents are often the primary source of guidance for adolescents and play a significant role in shaping their sexual attitudes, values, and practices. Open and honest communication between parents and their children about SRH is essential for fostering healthy attitudes toward contraception and sexual health. However, research indicates that SRH communication between parents and children is often limited, with parents frequently avoiding discussions on topics such as contraception and sexual behavior (Evans et al., 2011).

Many families may pressure adolescent girls to avoid contraceptive use, promoting a pro-birth culture that prioritizes early marriage and childbearing over family planning (Ilugbam, 2023). Cultural beliefs and societal expectations often reinforce this pressure, making it difficult for adolescents to access or use contraception without fear of judgment or disapproval. Existing research highlights several barriers to effective communication between parents and adolescents on sexual matters, including cultural norms, parents' discomfort in discussing sexual content, and low self-efficacy (J et al., 2010). Additionally, parents themselves may lack accurate knowledge about SRH, which further complicates their ability to provide guidance to their children (S. et al., 2011).

A study conducted in Thailand identified several obstacles to effective parent-child communication on SRH, including generational differences, traditional norms, and parents' fear of discussing sensitive topics like sexuality. Parents often believed that it was not their responsibility to talk to their children about SRH, leaving adolescents without a trusted source of information (Sridawruang et al., 2010). Similarly, research among teenagers in South Africa found that many adolescents avoided discussing HIV and sexual health with their parents due to emotional and cultural barriers, as well as fear of punishment or reprimands (Soon et al., 2013). These communication challenges often lead to misinformation and discourage open discussions about contraception, further deterring adolescents from seeking out contraceptive services.

The content of SRH messages is also critically important. Limiting communication to abstinence-only messages often fails to meet the informational needs of adolescents. Several studies have found that parents are more likely to emphasize abstinence while neglecting discussions about condom use and contraception (Manu et al., 2015). Adolescents have expressed a desire for parents to move beyond abstinence-only messaging and focus on real-life issues, such as risky sexual behaviors and practical advice on contraception (Soon et al., 2013). The timing of SRH conversations is equally important. Research suggests that having these discussions before a child's sexual debut can help reinforce protective factors and reduce risky behavior. However, parents often struggle to initiate conversations about SRH at the appropriate time due to misunderstandings about their child's sexual activity (Downing et al., 2011).

External influences, such as media programs, worries about risky behavior, or contact with HIV-positive people, frequently initiate parent-child conversation regarding SRH (J et al., 2010). Nonetheless, the way parents provide SRH material can have a big

influence on how successful these discussions are. Many studies have found that parent-child communication about sexual health is often unidirectional, with parents controlling the conversation and relying on threats or scare tactics to discourage early sexual activity (Kumi-Kyereme et al., 2007). While some parents believe that instilling fear is an effective strategy, research suggests that open, dialogue-based conversations are more likely to promote healthy attitudes and behaviors (Bello et al., 2017). Insufficient or ineffective communication about sexual health can lead to misinformation and a lack of support for adolescents seeking to use contraceptives, perpetuating cycles of risky sexual behavior and unintended pregnancies (Ilugbam, 2023).

2.6 Socioeconomic Factors Affecting Contraceptive Use

There are notable differences in the association between teenage contraceptive use and home affluence, with socioeconomic class being a key factor in determining access to and use of family planning methods. Teenagers from more affluent families typically have easier access to healthcare services, including more alternatives for contraception. Studies regularly demonstrate that teenagers from wealthy homes are more likely to use modern contraceptive techniques than their counterparts from poorer households, who frequently encounter more logistical and financial obstacles (Sedgh et al., 2016). In low-income areas like sub-Saharan Africa, where access to contraceptive services can be limited and the standard of healthcare infrastructure is frequently subpar, these differences are more noticeable.

In sub-Saharan Africa, wealth-related inequalities in the demand for family planning are striking. Data from a study by (Mutua et al., 2021) highlight that married adolescent girls from poorer households experience a 17.8 percentage point gap in contraceptive

satisfaction when compared to their wealthier counterparts. This disparity reflects both limited access to contraceptive services and a lack of comprehensive sexual and reproductive health education in poorer communities. These inequalities are further exacerbated by the costs associated with accessing modern contraceptives, which include not only the cost of the contraceptives themselves but also transportation to healthcare facilities, consultation fees, and follow-up visits (Asmamaw & Negash, 2023).

Wealth-related inequalities are not limited to the married adolescent population. Adolescent girls and young women who are not married show similar differences. Unmarried teenagers in many regions of sub-Saharan Africa are more likely to be stigmatized and socially disapproved of for obtaining contraception, which makes it even harder for people from lower-income families to get family planning services (Asmamaw & Negash, 2023). This stigmatization can perpetuate cycles of poverty and poor health outcomes by increasing the rates of unwanted pregnancies, unsafe abortions, and STIs among adolescents from lower-income families.

Wealth gaps also affect the usage of contraceptives among young, sexually active women in higher-income nations like Canada. According to a study by Nethery et al. (2019), adolescents from lower-income households were more likely to rely on injectable contraceptives and condoms than to use oral contraceptives or dual methods (such as using both condoms and hormonal contraceptives). The preference for injectable contraceptives among poorer adolescents may be linked to lower upfront costs and longer duration of efficacy, compared to more expensive long-acting reversible contraceptives (LARCs), which require healthcare provider visits and higher initial costs. The study found that wealthier adolescents, on the other hand, were more

likely to use long-acting reversible contraceptives (LARCs), such as intrauterine devices (IUDs) and contraceptive implants, which offer long-term protection and are more cost-effective over time but require greater initial financial investment (Ugaz et al., 2016).

The type of contraceptive methods used and the general quality of family planning services available to adolescents are both influenced by household wealth. Adolescents who live in wealthy households are more likely to get thorough reproductive health education and counseling, enabling them to make knowledgeable decisions on their options for contraception. Teenagers from lower-income families, on the other hand, can be forced to choose less successful techniques because of financial limitations and a lack of knowledge about their possibilities. (Nethery & colleagues, 2019). Furthermore, poorer adolescents often face additional barriers, such as limited access to healthcare providers who are trained to offer a wide range of contraceptive methods, which can further limit their choices and reduce their likelihood of using the most effective forms of contraception.

Interestingly, while most studies show that wealthier adolescents are more likely to use LARCs, some evidence suggests that, in certain contexts, poorer adolescents may actually utilize these methods more than their wealthier peers. A study by Ugaz et al. (Ugaz et al., 2016) found a positive association between household wealth and LARC use in 20 out of 30 countries studied, but in some lower-income countries, LARCs were more commonly used by poorer adolescents. This suggests that the relationship between socioeconomic status and contraceptive use is complex and may be influenced by a variety of factors, including healthcare policies, cultural attitudes toward

contraception, and the availability of subsidized family planning services in certain regions.

The type of contraceptive method used by adolescents is strongly determined by their economic status, as financial constraints often limit access to more effective, long-term methods. According to Nethery et al. (Nethery et al., 2019), young females from lower-income households have a 15% lower likelihood of using oral contraceptives and a 19% lower likelihood of using dual methods compared to those from higher-income households. This reduced likelihood is often attributed to the high cost of oral contraceptives, which require regular refills and continuous healthcare consultations. In contrast, lower-income adolescents are 69% more likely to use injectable contraceptives, which provide temporary but longer-lasting protection, and 36% more likely to rely solely on condoms, which are more readily available and often distributed for free in many settings. However, condoms are generally considered less effective when used alone, as they are more prone to user error, thus increasing the risk of unintended pregnancies.

The economic burden of contraceptive access disproportionately affects adolescents from low-income households, leading to higher dependence on short-term and less effective methods, such as condoms and injectables, which may not align with their long-term reproductive health needs. The financial barriers also extend beyond the cost of the contraceptives themselves. Adolescents from poorer households often struggle to afford the transportation and healthcare fees required for consultations and follow-up visits, which are necessary for the proper use of many contraceptive methods. The disparities in contraceptive use between affluent and impoverished teenagers are made worse by this lack of access to complete and reliable family planning services, which

raises the incidence of unwanted births and negatively impacts reproductive health outcomes in lower-income groups.

2.7 Conceptual Framework

A conceptual framework for comprehending the relationships between the factors influencing the usage of contemporary contraceptives is shown in the figure below. The usage of contemporary contraceptives is the outcome variable.

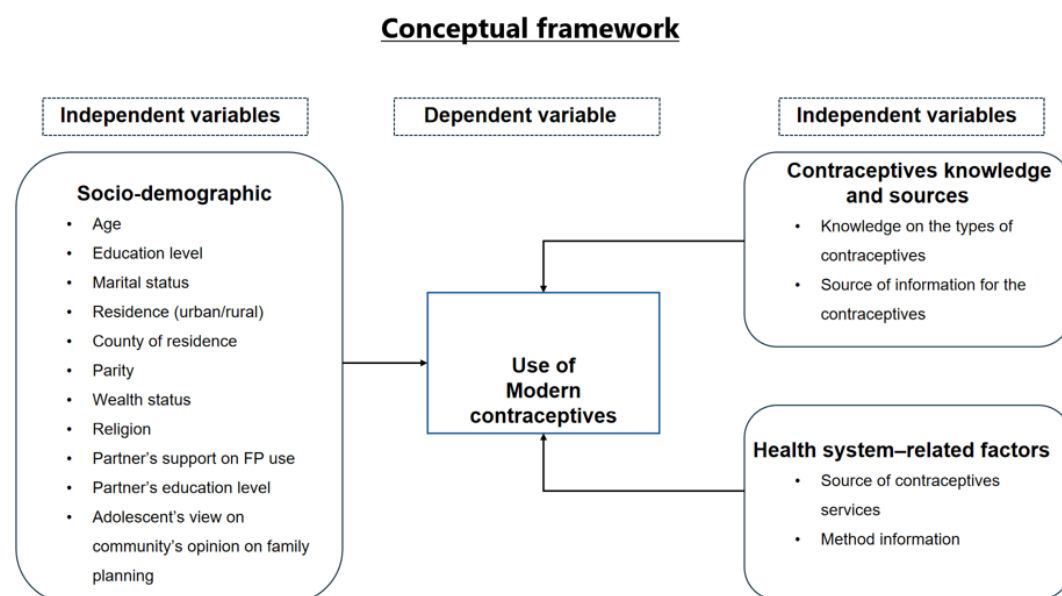


Figure 2.1: Conceptual framework as designed by the author (Salat, 2023)

The design of this conceptual framework is informed by the need to understand the multifaceted dynamics of modern contraceptive use, particularly in regions where family planning programs need to be scaled up. Understanding the characteristics and behaviors of contraceptive users is essential for identifying the key drivers and barriers that influence contraceptive uptake, allowing for the development of more targeted and effective interventions.

Empirical evidence from studies conducted in other developing countries has identified several socio-demographic factors that play a significant role in influencing contraceptive use. These factors include age, educational level, marital status, parity

(number of children), area of residence (urban or rural), household wealth index, and religious beliefs (Kawuki et al., 2022) (Ilugbam, 2023). For instance, younger women may have different contraceptive needs and access compared to older women, and educational attainment often correlates with increased knowledge and use of family planning methods. Marital status can also impact contraceptive use, as married individuals may have more opportunities or motivations to use contraception compared to unmarried individuals. Additionally, access to healthcare services, including family planning, is frequently influenced by living in an urban or rural region, and depending on the situation, household affluence and religious beliefs may either help or impede the use of contraceptives.

In addition to these socio-demographic variables, the framework also incorporates sources of information and health-related factors as key variables influencing contraceptive use. The availability and reliability of information about contraceptives play a critical role in shaping attitudes and behaviors towards family planning. Information sources such as healthcare providers, media, or peer networks can significantly affect knowledge, attitudes, and practices related to contraceptive methods. Health-related factors, such as the availability of healthcare services, the quality of counseling, and previous experiences with contraception (including side effects), also play a pivotal role in determining whether individuals choose to use modern contraceptives.

The conceptual framework is designed to visually represent the relationships between these various factors and their impact on the outcome variable—modern contraceptive use. By including these socio-demographic, informational, and health-related variables, the framework provides a comprehensive view of the determinants of contraceptive use.

This holistic approach ensures that the model captures the complexity of contraceptive behavior, highlighting how personal, societal, and systemic factors interact to influence family planning choices.

The design of this conceptual framework is informed by a combination of socio-demographic, informational, and health-related factors drawn from research in developing countries. These variables are critical for understanding the patterns of contraceptive use and for designing effective interventions aimed at increasing the uptake of modern contraceptives in areas where family planning programs need to be expanded. By mapping out these relationships, the framework serves as a valuable tool for policymakers, healthcare providers, and program designers working to improve reproductive health outcomes.

2.8 Theoretical Framework

This study is based on two major behavioral and health utilization theories: the Health Belief Model (HBM) and the Theory of Planned Behavior (TPB). These ideas offer an organized explanation of how individual views, social influences, and environmental factors impact adolescents' decisions to use or not utilize contemporary contraception. They have been widely used in sexual and reproductive health research and provide a complete framework for studying adolescent contraception behavior. The Health Belief Model proposes that people engage in health-related behaviors depending on their perceptions of risk, benefits, and barriers. The model consists of six components: perceived vulnerability, perceived severity, perceived advantages, perceived barriers, cues to action, and self-efficacy. The HBM provides a solid platform for investigating individual-level characteristics such as knowledge, beliefs, and perceived risks, which

are important predictors of contraceptive usage among teenagers. It explains why teens may choose not to utilize contraception even when services are available.

On the other hand, The TPB claims that behavior is motivated by behavioral intentions, which are impacted by attitudes, subjective standards, and perceived behavioral control. The TPB is significant because it considers social and interpersonal variables, which are vital for adolescents who frequently make decisions based on peer networks, relationships, and family. It also identifies systemic obstacles, such as the availability of youth-friendly services.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The numerous approaches utilized for data collection and analysis are explained in this chapter. This covers details like the research topic, study design, sampling strategy, sample size estimation, data kinds, data collection strategy, and data management. This study's ethical considerations were also discussed. With the use of these methods, insightful information on the factors influencing modern contraceptive use among female teenagers in Kenya were identified.

3.2 Study Area

Performance Monitoring for Action (PMA) in Kenya gathered secondary data for this study in 2021. Kenya is a country in East Africa that borders Ethiopia to the north, Somalia to the east, Uganda to the west, Tanzania to the south, South Sudan to the northwest, and the Indian Ocean to the southeast. Kenya's projected total population was 47,564,296 as per the 2019 National Population and Housing Census, which was published by KNBS. The country's annual intercensal growth rate was 2.2%. The female population made up 50.36% (24,014,716) of the total population; where 10.8% were female adolescents aged 15-19 years. With a median age of 19 years, Kenya is known for having a young population. About 2% of the population were aged 19 years according to the 2019 census. Among them, 488,305 were female, and 483,586 were male. The percentage of teenage pregnancies in Kenya is reported to be 15% according to KDHS 2022.

Kenya is administratively divided into 47 semi-autonomous counties, which provide health care services and carry out health policies. Policy-making occurs at the national

level. PMA is a nationally representative survey that uses multi-stage cluster design, with urban-rural strata. The survey uses enumeration areas (EAs) as the primary sampling units. To achieve this, a master sampling frame was provided by the Kenya National Bureau of Statistics (KNBS) for EA selection. PMA Kenya chose counties with a multi-stage cluster sampling procedure that used a probability proportional to size (PPS) approach. This meant that larger counties had a better chance of being selected. The process was also divided into two categories: urban and rural resident.

A total of 11 counties were sampled to be nationally representative with urban and rural as strata, obtained from the master sampling frame of the Kenya National Bureau of Statistics. The eleven counties are: Kericho, West Pokot, Kiambu, Siaya, Nandi, Bungoma, Kakamega, Kitui, Kilifi, Nyamira and Nairobi counties as shown in the map below.

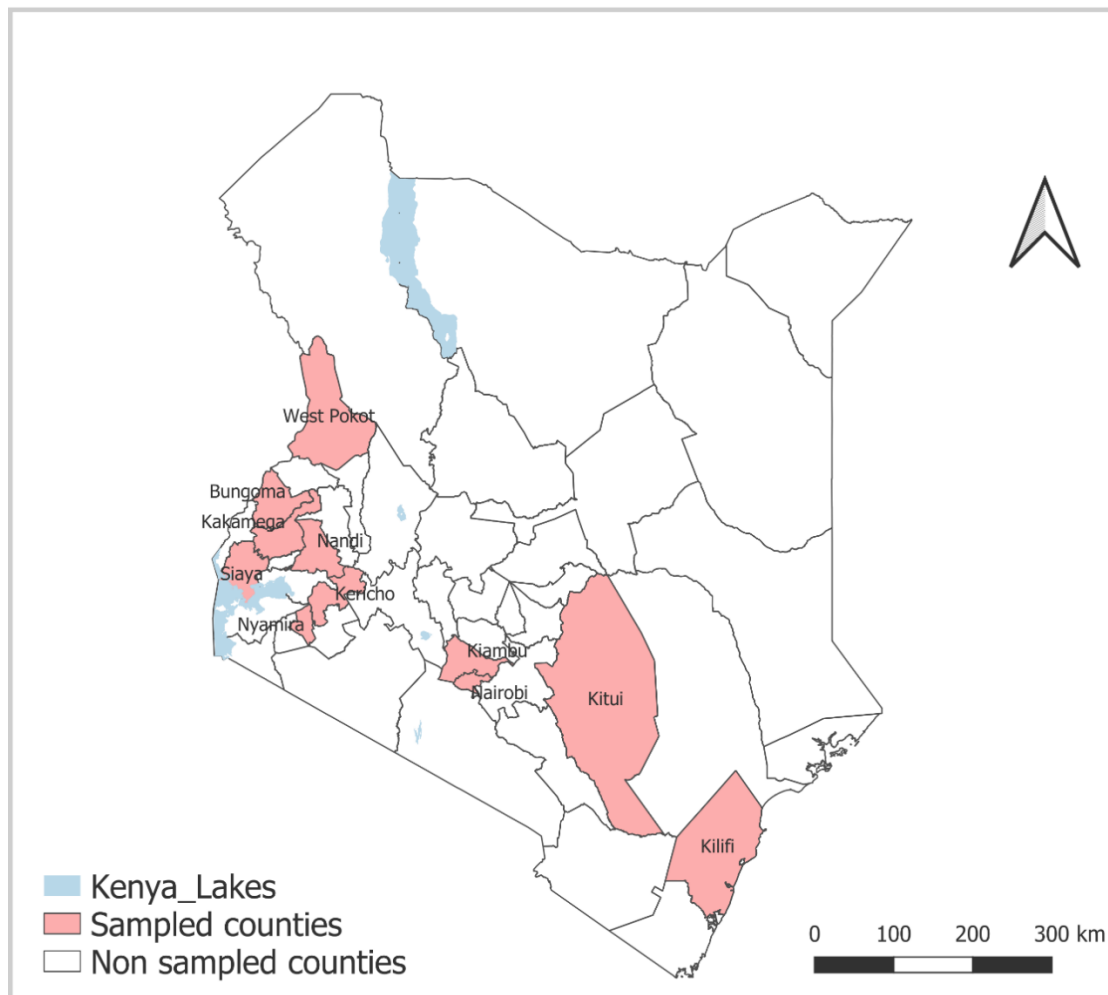


Figure 3.1: Map of Kenya showing the study area (selected counties)

3.3 Study Design

This is a retrospective study design utilizing secondary data from the Performance Monitoring for Action (PMA) Kenya, a survey conducted in the year 2021 to answer specific reproductive health research questions among adolescents by the investigator.

3.4 Study Period

PMA has been conducting nationwide surveys since 2014. For this study, the data used were collected in the November - December 2021 survey.

3.5 Study Population

The population of interest for this study comprises female adolescent girls aged 15-19.

3.5.1 Inclusion criteria

The data for adolescent girls aged 15-19 years who were present during the survey period, either married or are unmarried, and were sexually active (defined as, *anyone who had sex within the last 30 days before the interview*) were included in the sample.

3.5.2 Exclusion criteria

Those who were excluded in this study were female adolescent girls 15-19 years, sexually inactive, and those who had consistently missing data in their records

3.6 Sample Size Determination and Sampling Strategy

Secondary data was used in this study, where the PMA survey collected all the parameters of interest. The initial pool of participants (total women interviewed) consisted of 9,532 women of reproductive age, from whom data were collected. From this larger pool, adolescents aged 15-19 years were identified based on specific inclusion criteria using Stata 16.1. Out of the total, 3,855 adolescents aged between 15 and 19 years met the age criteria and were included in the next step. Among these 3,855 adolescents, only 1,383 were sexually active and thus eligible for the study's focus on contraceptive use. Out of the 1,383 sexually active adolescents, 310 were excluded from the study due to missing key demographic data. This left 1,073 eligible participants after exclusions for missing data. From the 1,073 eligible adolescents, 344 participants were randomly selected using the finite population correction factor formula to form the final sample for the study.

The sample size for frequency in a population was used with the following assumptions:

Population size (finite population correction factor or fpc) (N): 1,073

Hypothesized % frequency of outcome factor in the population (p): 10.5%/±

Confidence limit as % of 100 (absolute ±%) (d): 5%

Design effect (for cluster survey-*DEFF*): 2.67%

Note: The Modern Contraceptives Prevalence Rate is 10.5% (KNBS and ICF, 2023)

Final sample size calculation

Step 1: Calculate the initial sample size n_o (for infinite population)

$$n_o = Z^2 \times P(1-P) / e^2$$

$$Z^2 = 1.96^2 = 3.8416$$

$$P(1-P) = 0.105 \times 0.895 = 0.094$$

$$e^2 = 0.0267^2 = 0.00071289$$

$$n_o = 3.8416 \times 0.094 / 0.00071289$$

$$= 0.3611 / 0.00071289 = 506.5$$

$$n_o = 507$$

Step 2: Applying finite population correction

$$n = n_o / 1 + (n_o - 1 / N)$$

$$n = 507 / 1 + (506 / 1073) = 344$$

The final sample size $n = 344$

The flow chart shows the sampling process:

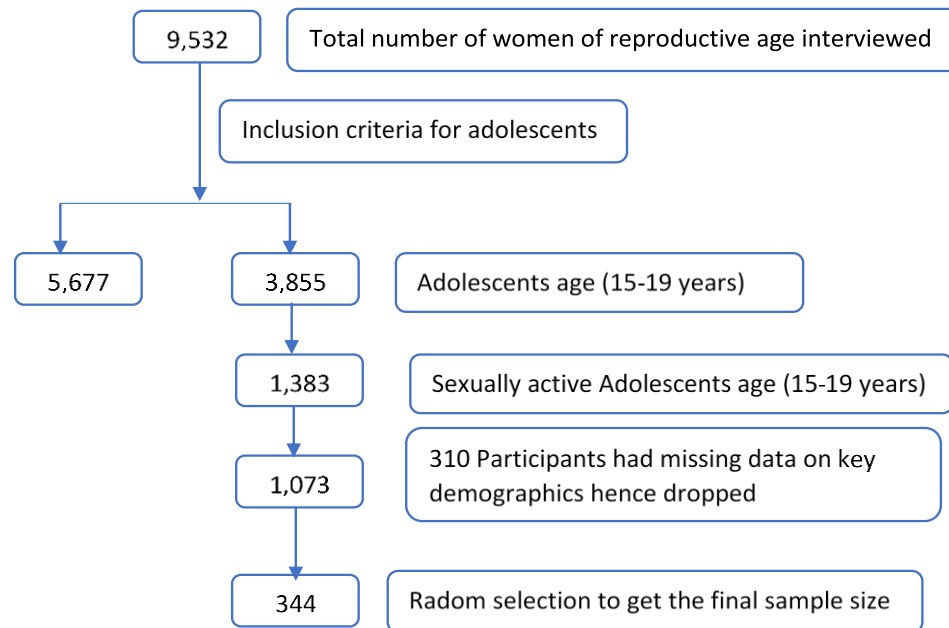


Figure 3.2: A Flowchart outlining the selection process for the final sample of adolescents included in a study

3.7 Definition of variables

3.7.1 Outcome variable

The outcome variable was the use of contemporary methods of contraception. "When was the last time you had sexual intercourse?" was the question posed to the respondents. The purpose of this inquiry is to determine whether they engage in sexual activity. "Did you or your partner do something or use any method to delay or avoid getting pregnant?" was the next question that was asked. Either "yes" or "no" was the anticipated response. Prior to the study, they were also asked if they had ever used any of the contemporary methods of birth control, such as condoms, pills, injectables, IUDs, male or female sterilization, implants, or the Emergency Contraceptive Pill (ECP). Users of contemporary contraceptives versus non-users made up the binary outcome variable.

3.7.2 Independent variables

The independent variables were segregated into the following categories; socio-demographic factors (age, marital status, education level, residence (rural/urban), county of survey, parity), socioeconomic factors (house wealth quintile, partner's support on FP use, education level of the partner, women and girls empowerment, religion, community opinion on FP, self-opinion on FP), source of contraception (knowledge on the type of contraceptives, source of information on contraceptive), and factors relating to the health system (source of contraceptive services and method information index).

3.8 Data Management

3.8.1 Data source and Data extraction

PMA datasets are freely available on their website (<https://www.pmadata.org/countries/Kenya>) and KNBS (as citizen-generated data) website upon request. Upon approval, the variables of interest were extracted from the main dataset, with the help of a data codebook, and the analysis manual that comes with the dataset. Using the statistical package (Stata version 16.1), all the unnecessary variables were dropped to just maintain the variables of interest. This then proceeded to detailed analysis as per the study objectives.

3.8.2 Analysis plan

Data analysis for this study was conducted using Stata version 16.1, and survey weights were employed in light of the multi-stage complex survey design. In descriptive data analysis, frequency, proportions, and measures of central tendency (mean, mode, and median) were used to characterize categorical variables. To ascertain the relationship between the outcome (the use of contemporary contraceptives) and the exposure

variables (such as age, education level, marital status, residence, and religion), bivariate analysis was used. A multivariable binary logistic regression model was applied to all variables having a bivariate level p-value greater than 0.2. The final model was developed using unconditional logistic regression with stepwise backward elimination. At the multivariable level, all variables with p-values >0.05 were considered to be independently related to the usage of contemporary contraceptives.

3.8.3 Data Analysis

The outcome variable was created based on the responses from the female questionnaire where questions were asked to ascertain if the respondent was sexually active. Those who were identified as sexually active were enrolled in the study. They were then asked if they used modern contraceptives to protect themselves from pregnancy. The expected answer was “yes” or “no”

Descriptive analysis of independent variables:

This was obtained by calculating the frequencies, proportions, and mean of independent variables

Prevalence of modern contraceptive use:

This was determined by computing the percentage of users per each independent variable.

Factors associated with modern contraceptive use:

The measure of association was calculated and the odds ratio with its corresponding Chi-square was computed. Variables with a p-value less than 0.05 were regarded as having a statistically significant association with modern contraceptive use. Significant

independents at the bivariate level were further used in modeling the logistic regression at a multivariate level. All variables with a $p < 0.05$ were regarded as independently associated with modern contraceptive use.

3.9 Ethical Consideration

The PMA survey obtained ethical approval and licensing REF.No.KNH/ERC/R/192 from KNH ERC and NACOSTI/P/21/14885 from NACOSTI. During fieldwork, the data collectors obtained consent to interview the respondents as follows: Respondents age 18 years and above gave individual consent, while for the minors, parental consent and minor ascents were obtained.

For this study, ethical approval was obtained from Moi University Ethical Review Committee (IREC) FAN:0004559 and NACOSTI license number NACOSTI/P/23/31072. Permission was sought from the PMA website which was approved after the intent was assessed.

3.10 Dissemination of Research Findings

The findings of this study will be disseminated through submission of the thesis to the university library, presentations at scientific forums, and publication in peer-reviewed journals. Relevant stakeholders, including the Ministry of Health and organizations involved in adolescent sexual and reproductive health in Kenya, will be targeted to enhance uptake of the findings.

CHAPTER FOUR

4.1 Results

This chapter covers the study's findings on the prevalence of contemporary contraception use among female teenagers in Kenya, as well as the factors that influence it. The findings are organized according to the study objectives and follow a logical sequence, beginning with a description of the study population, then the amount of contemporary contraceptive use, and lastly an examination of the factors associated with contraceptive uptake. To summarize data and investigate relationships between key variables, descriptive and inferential statistics are used.

Descriptive statistics provide an overview of participants' sociodemographic characteristics and reproductive health profiles, whereas bivariate and multivariate analyses investigate the relationships between individual, interpersonal, and health system factors and the use of contemporary contraception. Tables and figures are used to improve clarity and facilitate the interpretation of findings.

The findings reported in this chapter serve as the foundation for the discussions and conclusions in the following chapters.

4.1.1 Result 1: Descriptive analysis of Socio-demographic factors

The majority of the respondents 64.8% (223/344) were aged 18-19 years. The mean age for the respondents was 17.8 years with a standard deviation of +/-1.7. Those with secondary or higher levels of education were 67.7% (233/344). The majority of the respondents were unmarried 76.7% (264/344). Nulliparous adolescents were 66.6% (229/344) whereas only 3.9% (14/344) of the respondents had more than one child. The majority of the study participants were residents in rural 79.5% (273/344). Kakamega

County had the highest number of participants at 23.3% (80/344) whereas Kiambu County had the least 3.4% (12/344).

Among the respondents interviewed, 77% (265/344) were not married or living together with a partner as if married. On the community's view on adolescent use of contraceptives, more than half, 51.7% (178/344) of the adolescents interviewed opined that the community view adolescents using contraceptives as promiscuous, while 28.4% of the adolescents strongly disagree that adolescents using contraceptive are promiscuous.

Household wealth was almost equally distributed among the respondents, but a smaller proportion of the respondents were from the highest wealth quintiles 8.7% (30/344).

Several questions were combined to generate a composite variable of girls' and women's empowerment. The respondents were asked about their views and experiences on the following,

“If I use family planning, my husband/partner may seek another sexual partner.

If I use FP, I may have trouble getting pregnant the next time I want to.

If I use family planning, my children may not be born normal.

If I use FP, my body may experience side effects that will disrupt relations.

I can decide to switch from one family planning method to another if I want to.

From the above questions, the responses were summed and ordered so that an index could be generated. The majority of the women, 93.8% (323/344) were empowered.

In terms of contraceptive use, 78.5% (128/163) of the respondents had support from their sexual partners on contraceptive use. On partner education, 57.7% (45/78) of the respondents' sexual partners had at least a secondary level of education

The majority of adolescents using modern contraceptives, 35.6% (58/163) received contraceptives from other sources, including friends, relatives, colleagues, etc., whereas 23.2% (38/163) visited chemists for the commodities. For those who visited health facilities, about 20.3% (33/163) of the respondents obtained contraceptives from the dispensaries. The main source of contraceptive information was mainstream media 76% (263/344). For the modern contraceptive users, 35.6% (58/162) reported that they access contraceptives from other sources. Furthermore, the users were asked the following questions to assess the level of counseling services offered in service delivery points;

When you came to the facility, did the provider tell you of other contraceptive methods?

Were you told of the side effects of the method?

Were you told what to do if you experience side effects?

Were you told that you could switch to other methods in the future?

From the response, about 62% (100/162), reported to have received some information from at least one of the four questions.

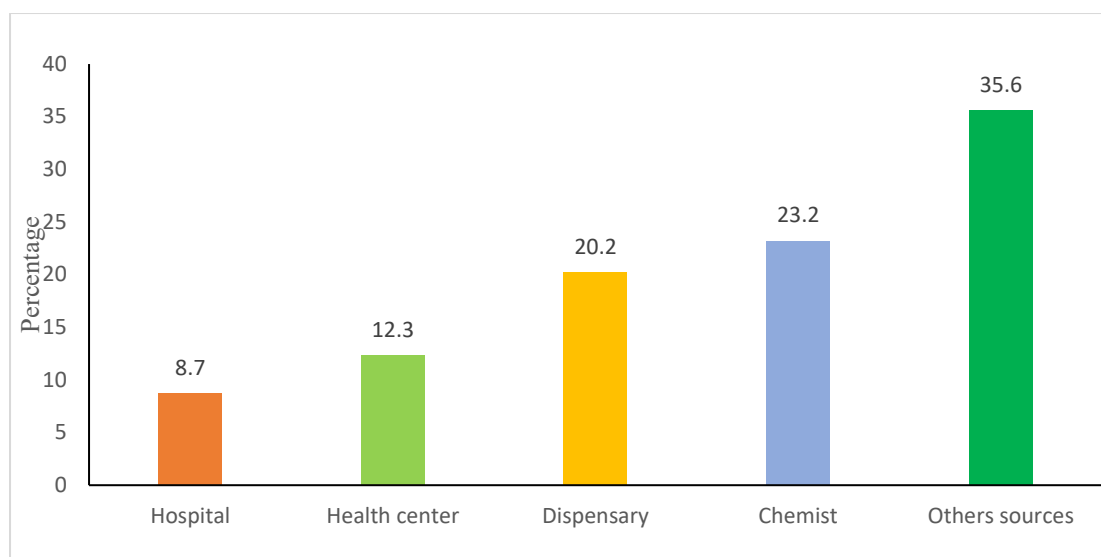


Figure 4.1: Sources of Contraceptive Services

Table 4.1: Proportion of adolescents by socio-demographic characteristics

Variables	Characteristics	Frequency =344	Percentage (%)
Age group			
	15-17	121	35
	18-19	223	65
Education level			
	No and Primary	111	32
	Secondary/Higher	233	68
Marital status			
	Married	80	23
	Never married	264	77
Parity			
	None	229	67
	One	101	29
	Two or more	14	4
Residency			
	Urban	71	21
	Rural	273	79
County of Residence			
	Bungoma	21	6
	Kakamega	80	23
	Kericho	50	14
	Kiambu	12	3
	Kilifi	23	7
	Kitui	44	13
	Nairobi	12	4
	Nandi	17	5
	Nyamira	15	4
	Siaya	25	7
	West Pokot	45	13
Sexual Partner's support on FP use	No	35	22
	Yes	128	78
Partners Education level	No and Primary	33	10
	Secondary and Higher	45	13
	No sexual partner	265	77
Women & Girls empowerment	Less empowered	21	6
	Empowered	323	94
Religion	Christians	18	5
	Catholic	42	12
	Protestants	265	77
	Islam	11	3
	Others	8	2
Community view- Adolescents who use FP are promiscuous			
	Most	178	52
	Some	91	26
	Few	75	22
Personal view- Adolescents who use FP are promiscuous			
	Strongly Agree	73	21
	Agree	75	22
	Disagree	97	28
	Strongly Disagree	98	29
Information source			
	Mainstream media	263	76
	Social media	81	24

4.1.2 Result 2: Prevalence of Modern contraceptive use among sexually active adolescents (15-19 Years) and their characteristics

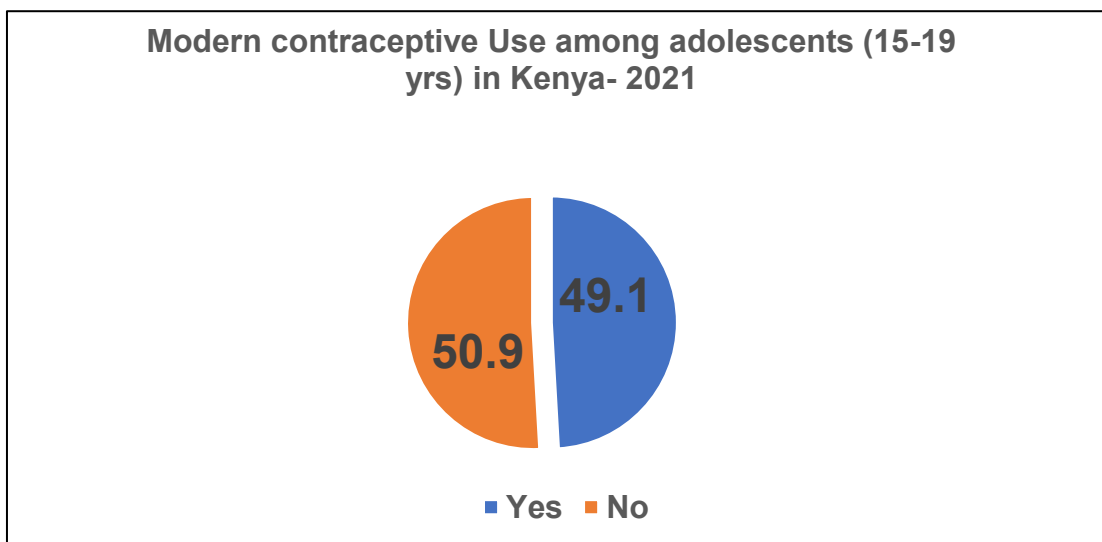


Figure 3.1: prevalence of modern contraceptives among adolescents

The modern contraceptive prevalence rate for the study respondents was 49.1% (169/344). The prevalence of contemporary contraceptives was higher among older teenagers (18–19 years) at 57.4% (128/223). Of the respondent with secondary and higher education levels, 51.9% (121/233) used modern contraception, which is more than half. Compared to married teenagers, who had a prevalence of 50.1% (132/264), approximately 45.9% (43/80) of unmarried adolescents used contraceptives. The prevalence of using contemporary contraceptives was greater among adolescents with at least one kid (62.4%; 63/101), those with two or more children (56.5%; 6/14), and those without children (42.8%; 131/229). 98.6% (34/35) of married teenagers who use contemporary contraceptives reported that their partners did not support them. However, 46.3% (21/45) of the contraceptive users had partners with secondary or higher education level. Contraceptive use was significantly higher among urban 64.8% (46/71) than rural dwellers 45.1% (123/273). Comparing contraceptive use among the different household wealth quintiles, more than half of the respondents in each wealth

quintile used a modern contraceptive, whereas only 27.3% (26/96) of the respondents from the least wealth quintiles used a modern contraceptive method. About 49.6% of the modern contraceptive users were empowered, that is they can make reproductive health decisions on their own. While comparing the different regions, contraceptive use was least in Kitui 33.0% (14/44) and West Pokot 35.0% (16/45), while it was highest in Kiambu at 80.7% (9/12), and Nyamira at 69.8% (10/15) among young adolescents. Regarding religion, contemporary contraceptives were used by 50.6% (131/265) of the Protestant respondents. The prevalence of respondents who strongly agreed that adolescents using modern contraceptives were promiscuous was 54.3% (33/73), while the prevalence of respondents who said that the majority of the community views adolescents using modern contraceptives as promiscuous was 57.8% (77/178). The prevalence of people who got information on contemporary contraceptives from social media was 51.5% (39/81) compared to 48.4% (136/268) for people who got it from mainstream media.

Table 4.2: Prevalence of Modern contraceptive use among sexually active adolescents by socio-demographic characteristics

Characteristics		Frequency n=344	Percentage	Modern contraceptive use (n)		Prevalence%
				Yes	No	
Age	Mean		17.8			49.1[43.8,54.4]
Age group	15-17	121	35	41	80	33.9[24.2,45.2]
	18-19	223	65	128	95	57.4[49.6,64.8]
Education level	No and Primary	111	32	48	63	43.5[33.8,53.7]
	Secondary/Higher	233	68	121	112	51.8[42.8,60.6]
Marital status	Married	80	23	37	43	45.9 [34.9,57.3]
	Never married	264	77	132	132	50.1 [41.3,58.8]
Parity	None	229	67	98	131	42.8 [33.8,52.3]
	One	101	29	63	38	62.4 [51.8,72.0]
	Two or more	14	4	8	6	56.5 [27.7,81.6]
Residency	Urban	71	21	46	25	64.8 [50.8,76.6]
	Rural	273	79	123	150	45.1 [37.0,53.4]
County of Residence						
	Bungoma	21	6	7	13	36
	Kakamega	80	23	42	38	52.2
	Kericho	50	14	26	24	51.9
	Kiambu	12	3	9	2	80.1
	Kilifi	23	7	14	9	61.5
	Kitui	44	13	14	29	33
	Nairobi	12	4	7	5	60.1
	Nandi	17	5	7	10	43
	Nyamira	15	4	10	5	69.8
	Siaya	25	7	15	10	58.8
	West Pokot	45	13	16	29	35
Household wealth index						
	Lowest quintile	96	28	26	70	27.3 [15.6,43.4]
	Lower quintile	94	27	60	33	64.4 [51.9,75.2]
	Middle quintile	67	19	34	33	50.1 [37.4,62.9]
	Higher quintile	57	17	32	25	56.7 [40.2,71.8]
	Highest quintile	30	9	17	14	54.3 [32.3,74.8]
Sexual Partner's support on FP use						
	No	35		34	1	98.6[0.94,1.000]
	Yes	128		120	8	94
Partners Education level						
	No and Primary	33	10	15	19	43.6
	Secondary and Higher	45	13	21	24	46.3
	No sexual partner	265	77	133	132	50.3
Women & Girls empowerment						
	Less empowered	21	6	9	12	41.8
	Empowered	323	94	160	163	49.6
Religion						
	Christians	18	5	9	9	49.2
	Catholic	42	12	17	25	40.4
	Protestants	265	77	134	131	50.6
	Islam	11	3	5	6	46.5
	Others	8	2	4	4	50.3
Community- Adolescents who use FP are promiscuous						
	Most	178	52	101	77	57.8
	Some	91	26	42	49	45.9
	Few	75	22	26	49	34.8
Personal- Adolescents who use FP are promiscuous						
	Strongly Agree	73	21	40	33	54.3
	Agree	75	22	28	47	37.2
	Disagree	97	28	52	45	54
	Strongly Disagree	98	29	49	49	50
Information source						
	Mainstream media	263	76	127	136	48.4
	Social media	81	24	42	39	51.5

4.2 Result 3: Bivariate Analysis. Factors associated with Modern contraceptive use among female adolescents

VIF was used to evaluate the covariates with high correlation and eliminate them from additional analysis in order to test for multicollinearity among the independent variables. Due to their strong association, the method information index and the contraceptive source were excluded from the analysis.

Age, respondents' number of births, household wealth quintiles, and respondents' perceptions of how the community views adolescent use of modern contraceptives were the variables that were significantly associated with modern contraceptive use in the bivariate analysis (p value <0.05).

The odds of contraceptive use were 2.6 times higher among the older adolescents (18-19 years) as compared to younger adolescents (cOR=2.6, 95% CI: 1.6,4.28 p -value <0.05). About 60% of the rural dwellers were less likely to use contraceptives, as compared to urban residents (cOR=0.4, 95% CI: 0.23,0.87 p -value <0.05). Adolescents who had one child were 2.2 times more likely to use modern contraceptives, as compared to those with no children (cOR=2.2, 95% CI: 1.23,3.99 p -value <0.05).

Comparing the different household wealth quintiles, the odds of contraceptive use were about 5 times higher (cOR=4.8, 95% CI: 2.06,11.21 p -value <0.05) among adolescents from the lower wealth quintiles, 2.7 times higher among adolescents from the high wealth quintile (cOR=2.7, 95% CI: 1.12,6.38 p -value <0.05), 3.5 times higher (cOR=3.5, 95% CI: 1.29,9.36 p -value <0.05), among adolescents from the higher wealth quintile and 3.2 time higher (cOR=3.2, 95% CI: 1.09,9.16 p -value <0.05), among women from the highest wealth quintile, as compared to those from the least wealth quintile. On the aspect of respondents' opinion on the community perception of modern

contraceptive use among adolescents, 60% of the adolescents believed that a few of the community members viewed the adolescent girls using modern contraceptives as promiscuous (cOR=0.4, 95% CI: 0.21,0.8 p-value<0.0

Table 4.3: Cross-tabulation of characteristics (independent variable) against modern contraceptive use (outcome variable)

Variables	Modern Users (n) Yes	Contraceptive No	Modern Users (%)	Contraceptive	cOR (95% CI)	P-value
Age (years)						
15-17	41	80	33.9 [24.2,45.2]	Ref		
18-19	128	95	57.4 [49.6,64.8]		2.6 [1.6,4.28]	0.000
Education level						
No and Primary	48	63	43.5 [33.8,53.7]	Ref		
Secondary and Higher	121	112	51.8 [42.8,60.6]		1.4 [0.85,2.3]	0.290
Marital status						
Married	37	43	45.9 [34.9,57.3]	Ref		
Never married	132	132	50.1 [41.3,58.8]		0.8 [0.47,1.51]	0.565
Residency						
Urban	46	25	64.8 [50.8,76.6]	Ref		
Rural	123	150	45.1 [37.0,53.4]		0.4 [0.23,0.87]	0.018
Parity						
None	98	131	42.8 [33.8,52.3]	Ref		
One	63	38	62.4 [51.8,72.0]		2.2 [1.23,3.99]	0.008
Two or more	8	6	56.5 [27.7,81.6]		1.7 [0.48,6.26]	0.395
Household wealth index						
Lowest quintile	26	70	27.3 [15.6,43.4]	Ref		
Lower quintile	60	33	64.4 [51.9,75.2]		4.8 [2.06,11.21]	0.000
Middle quintile	34	33	50.1 [37.4,62.9]		2.7 [1.12,6.38]	0.029
Higher quintile	32	25	56.7 [40.2,71.8]		3.5 [1.29,9.36]	0.014
Highest quintile	17	14	54.3 [32.3,74.8]		3.2 [1.09,9.16]	0.046
Partner's support on FP						
No	34	1	98.6 [89.4,99.8]	Ref		
Yes	120	8	94 [87.8,97.2]		0.2 [0.03,2.12]	0.292
Sexual Partner's Education Level						
No and Primary	15	19	43.6 [25.8,63.3]	Ref		
Secondary and Higher	21	24	46.3 [31.6,61.7]		1.1 [0.38,3.3]	0.843
No sexual partner	133	132	50.3 [41.5,59.1]		1.3 [0.56,3.06]	0.534
Girls empowerment						
Less empowered	9	12	41.8 [19.6,68.0]	Ref		
Empowered	160	163	49.6 [42.4,56.8]		1.4 [0.47,3.97]	0.561
Religion						
Christians	9	9	49.1 [27.0,71.7]	Ref		
Catholic	17	25	40.4 [24.7,58.4]		0.7 [0.21,2.32]	0.56
Protestants	134	131	50.6 [41.7,59.4]		1.1 [0.39,2.84]	0.909
Islam	5	6	46.5 [22.3,72.4]		0.9 [0.21,3.82]	0.884
Others	4	4	50.3 [27.5,73.1]		1 [0.23,4.81]	0.951
Community – users of FP are promiscuous						
Most	101	77	56.8 [47.8,65.3]	Ref		
Some	42	49	45.9 [34.9,57.3]		0.6 [0.39,1.08]	0.295
Few	26	49	34.8 [23.0,48.8]		0.4 [0.21,0.8]	0.010
Adolescents' opinion - FP are promiscuous						
Strongly Agree	40	33	54.3 [42.5,66.1]			
Agree	28	47	37.2 [26.1,48.2]		0.5 [0.2,1.1]	0.283
Disagree	52	45	54 [44.2,63.8]		1 [0.5,2.2]	0.981
Strongly Disagree	49	49	50 [39.5,60.5]		0.8 [0.4,1.8]	0.652
Source of information						
Mainstream media	127	136	48.4 [40.6,56.2]	Ref		
Social media	42	39	51.5 [36.1,66.7]		1.1 [0.57,2.26]	0.715
County						
Bungoma	7	13	36 [15.6,63.2]	Ref		
Kakamega	42	38	52.2 [35.3,68.7]		1.9 [0.52,7.23]	0.321
Kericho	26	24	51.9 [34.0,69.3]		1.9 [0.5,7.3]	0.339
Kiambu	9	2	80.7 [40.3,96.3]		7.4 [0.88,62.99]	0.066
Kilifi	14	9	61.5 [39.7,79.4]		2.8 [0.68,11.76]	0.151
Kitui	14	29	32.9 [16.9,54.3]		0.9 [0.21,3.62]	0.850
Nairobi	7	5	60.1 [30.2,84.1]		2.7 [0.5,14.32]	0.247
Nandi	7	10	43 [26.3,61.6]		1.3 [0.35,5.15]	0.667
Nyamira	10	5	69.8 [44.0,87.1]		4.1 [0.87,19.34]	0.074
Siaya	15	10	58.8 [37.4,77.3]		2.5 [0.62,10.44]	0.196
West Pokot	16	29	35 [12.8,66.2]		1 [0.17,5.27]	0.957

4.3 Multivariate Analysis

For modeling purposes, the variables that were significant in the bivariate analysis and had a p-value of less than 0.2 were included in the multivariate analysis. In the multivariate analysis, the respondent's age, the number of children she had ever had, the home wealth quintile, and the community's perception of teenage contraceptive use were all significant.

Older adolescents (aged 18–19) had twice the odds of using modern contraceptives compared to younger adolescents (AOR = 2.0, 95% CI: 1.21–3.45, $p < 0.05$). Adolescents with one child were 2.2 times more likely to use modern contraceptives compared to those with no children (AOR = 2.2, 95% CI: 1.70–4.24, $p < 0.05$). Regarding wealth quintiles, those in the lower quintile had nearly five times the odds of using modern contraceptives (AOR = 4.9, 95% CI: 2.08–11.29, $p < 0.05$), while those in the middle quintile had nearly three times the odds of modern contraceptives use (AOR = 2.8, 95% CI: 1.11–6.88, $p < 0.05$), and those in the highest quintile had three times the odds (AOR = 3.2, 95% CI: 1.02–10.04, $p < 0.05$), all compared to the lowest wealth quintile. Additionally, 60% of adolescent respondents reported that some community members believe teenage girls who use modern contraceptives are promiscuous. This perception was associated with lower odds of contraceptive use (AOR = 0.4, 95% CI: 0.20–0.78, $p = 0.008$).

Table 4.4: Multivariate analysis, Factors independently associated with modern contraceptive use among female adolescents aged 15-19 in Kenya

Variables		Prevalence	cOR[95%CI]	P-value	AOR [95% CI]	P-value
Age (years)	18-19	57.4[49.6,64.8]	2.6 [1.6,4.28]	0.0000	2 [1.21,3.45]	0.0080
Residency	Rural	45.1 [37.0,53.4]	0.4 [0.23,0.87]	0.0180	0.6 [0.26,1.3]	0.1870
Parity	One	62.4 [51.8,72.0]	2.2 [1.23,3.99]	0.0080	2.2 [1.17,4.24]	0.0150
	Two or more	56.5 [27.7,81.6]	1.7 [0.48,6.26]	0.3950	1.9 [0.43,8.02]	0.4080
Household wealth index	Lower quintile	64.4 [51.9,75.2]	4.8 [2.06,11.21]	0.0000	4.9 [2.08,11.29]	0.0000
	Middle quintile	50.1 [37.4,62.9]	2.7 [1.12,6.38]	0.0270	2.8 [1.11,6.88]	0.0290
	Higher quintile	56.7 [40.2,71.8]	3.5 [1.29,9.36]	0.0140	2.9 [0.98,8.37]	0.0530
	Highest quintile	54.3 [32.3,74.8]	3.2 [1.09,9.16]	0.0340	3.2 [1.02,10.04]	0.0460
Community – users of FP are promiscuous	Some	45.9 [34.9,57.3]	0.6 [0.39,1.08]	0.0950	0.6 [0.31,1.1]	0.0960
	Few	34.8 [23.0,48.8]	0.4 [0.21,0.8]	0.0100	0.4 [0.2,0.78]	0.0080

CHAPTER FIVE

5.1 Discussion

This study looked into the variables related to the use of contemporary contraceptives by female adolescents in Kenya, ages 15 to 19. It was discovered that the following factors were statistically significant predictors of modern contraceptive usage among adolescents: age, number of children, household wealth quintile, and community perception of contraceptive use.

5.1.1 The proportion of respondent using modern contraceptives as per their sociodemographic characteristics

The findings from this study provided a comprehensive overview of the demographic characteristics, modern contraceptive use, and related attitudes among adolescents. The analysis from this study offers insights into various factors influencing modern contraceptive use among adolescents and the broader social and community context.

Most respondents were 18-19 years old, with a mean age of 17.8. This is an indicator that most of the respondents for the study were older adolescents. Older age was associated with a higher likelihood of modern contraceptive use, indicating a positive correlation between age and utilization. These findings are similar to those from a study done in Rwanda among sexually active adolescents (Kawuki et al., 2022). A significant portion of the respondents had attained secondary or higher education levels, suggesting a relatively educated group. This study's findings relate to a study in Rwanda, which showed that modern contraceptive use among sexually active adolescent girls was positively influenced by older age, and higher educational level (Kawuki et al., 2022). Advancing age among adolescents positively influences the uptake of modern contraceptives. In a study conducted in Kiambu, Kenya, adolescents aged 18 years and above were almost ten times more likely to utilize contraceptives compared to younger

adolescents(Murigi et al., 2016). Similarly, in Sierra Leone, the adjusted odds of using modern contraceptives among sexually active adolescent girls were higher for those with secondary or tertiary education, indicating a positive correlation between age and contraceptive use(Ilugbam, 2023). These findings suggest that as adolescents grow older, they are more likely to have the knowledge, perception, and access to contraceptives, leading to increased utilization rates. Therefore, interventions focusing on older adolescents, including age-specific reproductive health messages and educational programs, could further enhance the uptake of modern contraceptives among this age group.

Contraceptive use among adolescents is significantly influenced by their place of residence, with urban and rural settings presenting distinct patterns. A notable aspect of the sample was its predominantly rural residence, with Kakamega County having the highest representation and Kiambu County having the least.

A considerable proportion of respondents were neither married nor cohabiting, reflecting the typical marital status of the adolescent population. Community perceptions play a crucial role in influencing adolescent behavior, and more than half of the adolescents felt that their community views contraceptive use among adolescents as promiscuous. However, some of the adolescents strongly disagreed with this perception, highlighting a significant division in community attitudes.

A substantial majority of the respondents were nulliparous, and only a small fraction had one or more than one child. Social norms related to marriage and fertility expectations, along with cultural barriers, play a crucial role in influencing contraceptive behavior among adolescents, highlighting the need to address these factors in family planning strategies. These findings are similar to those found in a study

done in 73 low-and Middle middle-income countries (De Vargas Nunes Coll et al., 2019)

In this study, modern contraceptive use across the household wealth categories was relatively evenly distributed across the surveyed population; however, a smaller proportion of adolescents belonged to the highest wealth quintiles. The economic disparity may significantly influence access to modern contraceptive methods. Adolescents from lower-income households often face financial barriers that limit their ability to access a range of contraceptive options, particularly long-acting or more effective methods that may involve upfront costs or require visits to healthcare facilities. As a result, they may rely more heavily on less effective methods, such as condoms or traditional practices, which are more readily available but may not offer consistent or long-term protection. These patterns are similar to findings by Nethery et al. (2019), who highlight how economic constraints can limit reproductive autonomy by reducing access to diverse contraceptive choices. Addressing these financial barriers is critical in promoting equitable access to modern contraception among young adolescents, particularly in underserved or low-resource settings.

The study introduced a composite variable to measure empowerment based on respondents' views and experiences related to family planning. A significant majority were classified as empowered, suggesting that most adolescents felt confident in making decisions regarding their reproductive health. A study on adolescents' contraceptive uptake in Ethiopia showed that contraceptive use is influenced by factors like empowerment, sociocultural norms, and healthcare access (Mekonnen et al., 2022). This stresses the need for integrated interventions to improve utilization rates. Empowerment is one of the factors influencing modern contraceptive use among female adolescents, it is crucial to consider the role of comprehensive sexual education

programs in schools and communities. Such programs provide young individuals with essential information about reproductive health, contraception options, STI prevention, and healthy relationships. By integrating comprehensive sexual education into school curriculums and community initiatives, adolescents can make informed decisions regarding their sexual and reproductive health, leading to increased awareness and utilization of modern contraceptives. Studies have shown that access to accurate and age-appropriate sexual education positively correlates with higher rates of contraceptive use among adolescents (Ilugbam, 2023). Educating young people about their bodies, consent, and contraceptive methods not only empowers them to take charge of their reproductive choices but also helps in reducing unintended pregnancies and promoting overall well-being among adolescents (Ilugbam, 2023).

Partners play a significant role in the decision-making process regarding contraceptive use among female adolescents. Support from sexual partners was prevalent among the respondents, with a good number reporting partner support for contraceptive use. However, a good number reported that they had no support from their sexual partners and were using modern contraceptives. This striking observation that nearly all the married adolescents were using contraceptives and did not have support from their partners could suggest significant barriers within marital relationships. Research indicates that partner influence, including discussions about avoiding pregnancy, contraceptive use, and partner support for contraception, can impact contraceptive dynamics such as continuation, discontinuation, switching, and adoption (Sarnak et al., 2021). Additionally, this study showed that more than half of the respondents' partners had at least a secondary education level, indicating that higher partner education levels might contribute to greater support for contraceptive use.

The study highlighted various sources from which adolescents obtained contraceptives. Friends, relatives, and colleagues were the most common sources, followed by pharmacies and dispensaries. The quality of information received at health facilities was evaluated, with the majority of modern contraceptive users reporting that they were informed about at least one of the following aspects: alternative methods, side effects, managing side effects, and the possibility of switching methods. This indicates that a significant portion of users received comprehensive contraceptive counseling, although there remains room for improvement.

Mainstream media emerged as the primary source of contraceptive information for most of the respondents, highlighting the media's critical role in disseminating reproductive health information. However, they are contrary to the findings from a study on the information about reproductive health among junior high school teenagers in Indonesia which showed that the primary sources of information on modern contraceptives for female adolescents aged 15-19 include social media, the internet, and electronic media. (Kustin, 2023)

Generally, the findings from this study demonstrate that contraceptive use among adolescents is influenced by a complex interplay of factors including age, education, marital status, partner support, and community perceptions. The high levels of empowerment and partner support among respondents are encouraging, suggesting a favorable environment for making informed reproductive health decisions. However, the negative community perceptions and varying access to quality information and services highlight areas needing targeted interventions.

5.1.2 The prevalence of modern contraceptive use among the respondents

The overall modern contraceptive prevalence rate (CPR) among the surveyed adolescents was nearly half. This CPR highlights a relatively moderate level of contraceptive uptake, with variations observed across different subgroups. Older teenagers (18-19 years) had a significantly higher contraceptive prevalence rate than the general adolescent group. This implies that teenagers may become more knowledgeable about or have easier access to contraceptive techniques as they get older. These findings are similar to findings from a study in Nigeria, where adolescents aged 18 years and above were found to be more likely to utilize contraceptives compared to younger adolescents, highlighting the positive impact of age on contraceptive utilization (Crawford et al., 2021). The use of modern contraceptives by respondents with secondary and higher education levels in this study indicates the importance of educational attainment. Similarly, in Sierra Leone, among sexually active teenage girls, those with secondary or tertiary education had higher adjusted chances of taking contemporary contraceptives, suggesting a positive correlation between age, education level, and contraceptive use (Olal et al., 2023). Economic status and education also play a crucial role. Higher socioeconomic status and education levels are associated with increased contraceptive use, although this relationship can vary based on other factors like health insurance availability. These findings suggest that as adolescents grow older, they tend to have better access to information, resources, and decision-making abilities, which positively influence their uptake of modern contraceptives. This relationship further emphasizes how crucial education is to raising public knowledge of and use of reproductive health services.

Interestingly, unmarried adolescents had a slightly higher contraceptive use rate compared to their married counterparts. This finding may reflect societal or cultural

pressures on married adolescents regarding contraceptive use. Notably, adolescents with at least one child had a significantly higher prevalence of contraceptive use, indicating that parenthood might increase the perceived need for contraception to space or limit further births. These findings agree with findings from a study done in Indonesia, that showed that many married adolescents were not using contraceptives, which puts them at risk for further pregnancies. This highlights a gap in decision-making where even with higher parity, the use of contraceptives may not be fully realized (Mas'udah et al., 2021). Overall, parity plays a crucial role in shaping contraceptive decision-making, as it influences both the likelihood of using contraceptives and the motivations behind their use among adolescents (Mas'udah et al., 2021)

A striking observation was that nearly all the married adolescents using contraceptives did not have support from their partners, which could suggest significant barriers within marital relationships. This could be an association with cultural values in the community. Studies showed that Social norms and cultural expectations regarding marriage and fertility significantly impact contraceptive use (De Vargas Nunes Coll et al., 2019). In many regions, married adolescents without children face societal pressure to conceive, which may reduce their contraceptive use. However, an average of contraceptive users had sexual partners with secondary or higher education levels, indicating that a partner's education may positively influence contraceptive use, even if direct support is lacking.

Contraceptive use among adolescents is significantly influenced by their place of residence, with urban and rural settings presenting distinct patterns. The urban-rural divide was prominent, with urban dwellers showing a higher contraceptive prevalence rate compared to rural dwellers. This disparity highlights the potential differences in

access to healthcare services, education, and cultural attitudes toward contraception between urban and rural areas. Research indicates that urban adolescents tend to have shorter delays in modern contraceptive uptake compared to their rural counterparts, primarily due to better access to education and family planning services (Olakunle & Banounin, 2019). Conversely, in another study, rural adolescents exhibit higher effective contraception use, possibly due to greater exposure to contraceptive counseling (Crouss et al., 2018).

Economic status also influenced contraceptive use. More than half of the respondents in each wealth quintile used modern contraceptives, except for those in the least wealth quintile, where only slightly more than a quarter used a modern contraceptive method. This suggests that financial resources may play a significant role in accessing contraceptive services and education. Financial barriers may limit access to a full range of contraceptive methods, leading to increased reliance on less effective options among low-income individuals (Nethery et al., 2019).

Improving the outcomes of reproductive health requires empowering adolescents to make decisions about contraception. Teenagers' usage of contraceptives is greatly influenced by empowerment, which includes having access to resources and being able to make educated decisions. With nearly half of empowered teenagers using contraceptives, empowerment—which is defined as the capacity to make decisions about one's own reproductive health—was widespread. Research suggests that teenagers who feel empowered are more likely to use contraceptives successfully; a systematic analysis found that adolescents who feel empowered in their sexual and reproductive health are 22% more likely to take contraceptives (Lassi et al., 2024). The significance of autonomy in reproductive choices was highlighted by the finding that

women's decision-making authority was linked to a 20–27% increase in the usage of contemporary contraceptives in Bangladesh (Bhowmik et al., 2024).

Regional variations were also noted, with the highest contraceptive use in Kiambu followed by Nyamira, while the lowest rates were in Kitui and West Pokot. These regional differences could be attributed to varying levels of health infrastructure, cultural norms, and local policies on reproductive health.

5.1.3 Factors associated with modern contraceptive use

The results of the bivariate examination of the variables linked to teenage usage of contemporary contraceptives show a number of noteworthy correlations. The intricacy of contraceptive use behavior and the impact of demographic, socioeconomic, and community factors are highlighted by these relationships..

1. Age

Age was significantly associated with contraceptive use, with older adolescents (18-19 years) having 2.6 times higher odds of using modern contraceptives compared to younger adolescents. This suggests that as adolescents mature, they are more likely to utilize contraceptive methods, possibly due to increased sexual activity, greater awareness, and improved access to contraceptive services. Adolescents' increasing age has a positive impact on their use of contemporary contraception. Teenagers who were 18 years of age or older were about ten times more likely than younger adolescents to use contraceptives, according to a prior study done in Kenya (Murigi et al., 2016). Similarly, in Sierra Leone, among sexually active teenage girls, those with secondary or tertiary education had higher adjusted chances of using contemporary contraceptives, suggesting a beneficial relationship between age and contraceptive use (Olal et al., 2023). These findings suggest that as adolescents grow older, they are more likely to have the knowledge, perception, and access to contraceptives, leading to increased

utilization rates. Therefore, interventions focusing on older adolescents, including age-specific reproductive health messages and educational programs, could further enhance the uptake of modern contraceptives among this age group

2. Area of Residence

The area of residence (rural vs. urban) played a crucial role in contraceptive use. Rural dwellers were about 60% less likely to use contraceptives compared to their urban counterparts. This disparity may be attributed to differences in access to healthcare services, education, and socio-cultural attitudes towards contraception. These findings are similar to those found in DRC where the area of residence influenced the uptake of Modern contraceptives among young adolescents. (Kaniki et al., 2023). Urban areas typically have better healthcare infrastructure and more progressive attitudes towards family planning, facilitating higher contraceptive use (Atchison et al., 2018).

3. Number of Births

Compared to adolescents without children, those who had one child were twice as likely to use modern contraception. This research suggests that being a parent raises the perceived need for contraception, most likely due to the desire to minimize or spread out future pregnancies. These results are consistent with a study conducted in 73 Sub-Saharan African nations that found that women who have had children are more likely to use contraception (De Vargas Nunes Coll et al., 2019). Teenagers may become more aware of the need to prevent unwanted pregnancies as a result of having childcare responsibilities.

4. Household Wealth Quintiles

In this study, household income significantly influenced the use of contraceptives. Interestingly, compared to the least rich group, the odds of utilizing contraceptives were

significantly greater across all wealth quintiles. Young adolescents' usage of contraceptives and household affluence in underdeveloped nations have a complicated and regionally varied relationship. Wealthier women were more likely than poorer women to use LAPMs in 20 of the 30 nations that were evaluated (Ugaz et al., 2016). While poorer women used LAPM more frequently in several South Asian contexts, the highest positive correlation between wealth and LAPM use was seen in Latin America and the Caribbean (Mutua et al., 2021). Research indicates that the use of contemporary contraceptives is influenced by one's financial situation. Wealth-related disparities still exist despite advancements in contraception access, particularly for married teenage girls and young women in sub-Saharan Africa (Mutua et al., 2021). Addressing these disparities requires targeted policies to enhance access for lower-income groups and marginalized populations (Ross et al., 2023). The findings from this study suggest that while wealthier adolescents might have better access to contraceptive services, there are also significant efforts and interventions targeting poorer communities, possibly through government or NGO programs, which have effectively increased contraceptive use in these groups.

5. Community Perception

Community perception regarding contraceptive use among adolescents also influenced their behavior. Adolescents who perceived that the community viewed contraceptive users as promiscuous were less likely to use contraceptives (cOR=0.4). This highlights the impact of societal attitudes and stigma on contraceptive behavior. Negative perceptions and stigma around contraceptive use can deter adolescents from seeking and using these services due to fear of judgment or social ostracism.

The significant associations identified in this analysis underscore the multifaceted nature of contraceptive use among adolescents. Age, area of residence, number of

births, household wealth, and community perceptions are all critical factors that influence whether an adolescent will use modern contraceptives.

5.1.4 Logistic regression modeling factors independently associated with modern contraceptive use among female adolescent girls

The multivariate analysis clearly explains the determinants of contraceptive behavior in this population. The significant variables identified include the respondent's age, the number of children born by the respondent, the household wealth quintile, and the community's perception of contraceptive use.

1. Age

The analysis revealed that older adolescents (18-19 years) were twice as likely to use modern contraceptives compared to younger adolescents. This finding aligns with existing literature suggesting that older adolescents are more likely to engage in sexual activity and thus have a higher demand for contraceptive methods (Ilugbam, 2023). It also reflects a possible increase in autonomy and access to reproductive health information and services as adolescents age.

2. Number of Children

Adolescents with one child were significantly more likely to use modern contraceptives compared to those without children. Parity, or the number of children a woman has, is a significant factor influencing contraceptive use among young adolescents. Research indicates that parity, along with marital status, affects contraceptive behavior, particularly in low and middle-income countries. Adolescents with children are more inclined to use contraceptives to avoid additional pregnancies. This is evident in studies from Indonesia, where parity is a significant determinant of contraceptive use among married adolescents (Mas'udah et al., 2021). This indicates that once adolescents experience parenthood, they become more proactive in preventing subsequent

unintended pregnancies. In low and middle-income countries, married adolescents without children have the lowest contraceptive prevalence, suggesting that having children increases the perceived need for contraception (De Vargas Nunes Coll et al., 2019). The responsibilities and challenges of raising a child may heighten their awareness and motivation to use contraception effectively. However, social norms and cultural expectations regarding marriage and fertility significantly impact contraceptive use. In many regions, adolescents without children face societal pressure to conceive, which may reduce their contraceptive use (De Vargas Nunes Coll et al., 2019)

3. Household Wealth Quintile

The use of contraceptives was found to be significantly influenced by household wealth. Compared to adolescents in the least wealthy quintile, those in the lower quintile had almost five times the odds of using contemporary contraception, those in the middle quintile had three times the odds, and those in the highest quintile had three times the odds. This pattern highlights how crucial financial resources are for obtaining contraception. Adolescents from both the wealthiest and poorest quintiles are notably more likely to take contraceptives, indicating the effectiveness of targeted interventions across the economic spectrum. These results are consistent with a research conducted in Rwanda (Sserwanja et al., 2022). Nonetheless, people in the lowest quintile of wealth continue to face disadvantages, most likely as a result of enduring obstacles like price, accessibility, and education.

4. Community Perception

Negative perceptions within a community significantly impact contraceptive use among young adolescents, often leading to low uptake and inconsistent use. The findings of this study showed that community perception significantly influenced contraceptive use, with 60% of respondents believing that the community views

adolescents using contraceptives are promiscuous. This negative perception acts as a barrier to contraceptive use, as adolescents may fear judgment or stigma from their communities. This is consistent with a study that showed that parents and teachers often hold negative perceptions about adolescent contraceptive use, which discourages young people from using contraceptives (Moloi & Malapela, 2024). This is compounded by inadequate communication skills regarding sexuality, creating an environment that indirectly influences adolescents' perceptions negatively (Kinaro, 2013). Community members, including healthcare workers, may also contribute to negative perceptions through myths and misconceptions about contraceptives, further discouraging use among adolescents (Moloi & Malapela, 2024). Adolescents are more likely to use contraceptives if they perceive that their peers are doing so. This peer influence is significant, as it can encourage the use of condoms and other modern contraceptive methods. This finding highlights the critical need for community-based education and awareness programs to challenge and change these detrimental perceptions.

5.2 Strengths and Limitations

In this work, we employed weighted data for analysis together with a nationally representative sample. As a result, our data cover all Kenyan female adolescents between the ages of 15 and 19. Validated questions and standardized procedures were employed in PMA surveys to guarantee the internal and external validity of the data collected. However, cross-sectional data merely allows for the establishment of associations, not causal links.

Another limitation for this study was missing data or non-response in the data. This occurred for some variables for 310 (22%) participants. This was addressed by utilizing statistical techniques which were sufficient to generate conclusions

5.3 Conclusion

The study's overall findings highlight the intricacy of the variables affecting Kenyan young women's and adolescents' usage of contemporary contraceptives. It emphasizes how crucial factors like age, education, social perceptions, and financial means are in determining how people use contraceptives. Even while the high degree of partner support and empowerment is positive, issues like stigma in the community and gaps in contraceptive advice still exist. The findings suggest that targeted interventions, particularly those addressing community attitudes and financial barriers, are essential to enhance contraceptive use and overall reproductive health among adolescents. This study underscores the need for comprehensive sexual education and community-based programs that empower adolescents to make informed decisions about their reproductive health, ultimately leading to higher contraceptive uptake and better health outcomes. Other crucial activities include awareness-raising, community engagement, and improvements in healthcare service delivery. By addressing these factors, stakeholders can work towards promoting reproductive autonomy and improving the reproductive health outcomes of adolescent girls and young women in Kenya.

5.4 Contribution to Knowledge

Despite the limitations, this study adds to some, but growing, body of evidence on factors associated with modern contraceptive use dynamics among young adolescent girls and has meaningful implications for family planning programs and providers. Targeted interventions on sexual education in schools and communities are key in addressing reproductive health issues among adolescents, especially in terms of modern contraception. The results highlight the importance of awareness creation among community members on reproductive health issues among adolescents.

5.5 Implication of Policy and Practice:

The findings from this study have important implications for policymakers, healthcare providers, and program implementers working to improve adolescent reproductive health outcomes in Kenya. Strategies aimed at increasing contraceptive access and utilization among adolescents should address age-specific needs, socioeconomic disparities, and community-level perceptions. Comprehensive sexuality education, youth-friendly contraceptive services, and targeted outreach programs tailored to rural and economically disadvantaged populations are essential components of effective reproductive health intervention.

5.6 Recommendations

Based on this study's findings, several targeted recommendations can be made to enhance modern contraceptive use among adolescents, particularly in rural and urban settings in Kenya. These recommendations are to be implemented by all levels of government, that is, the national and county governments, including partners.

1. Strengthen Age-Specific Reproductive Health Education:

- **Focus on Older Adolescents:** Considering the observed correlation between age and contraceptive use, Kenya should prioritize reproductive health education for older adolescents (18-19 years). These programs must deliver comprehensive, age-appropriate information about contraceptive options, enabling informed decision-making as adolescents transition into adulthood. The Kenyan government should establish policies that cascade from the national level to county governments for localized implementation.
- **Integration into School Curricula:** Incorporate comprehensive sexual and reproductive health education into school curricula nationwide. The

content should progressively evolve, starting with foundational knowledge in primary schools and advancing to more detailed topics in secondary schools. This ensures adolescents are equipped with accurate, age-specific information about contraception and reproductive health before they become sexually active.

2. **Promote Community Engagement and Change Perceptions:**

- **Address Community Stigma:** Negative societal perceptions about contraceptive use among adolescents remain a significant barrier in Kenya. Community-based initiatives are essential to challenge cultural misconceptions and reduce stigma. These efforts should involve community leaders, parents, and faith-based organizations to foster open dialogue and education on the benefits of contraceptive use for adolescent health.
- **Utilize Peer Educators:** Train and empower Kenyan adolescents as peer educators to promote contraceptive awareness and counter stigma within their communities. Peer educators can bridge the gap between formal education and community-level discussions, making reproductive health education relatable and accessible.

3. **Enhance Access to Contraceptive Services Across Socioeconomic Groups:**

- **Target Low-Income Adolescents:** Economic disparities significantly affect contraceptive access in Kenya. To address this, subsidize modern contraceptives, expand outreach services in informal settlements, and establish free or affordable contraceptive services in underserved counties.

4. **Strengthen Health Infrastructure in Rural Areas:** Rural adolescents in Kenya face limited access to healthcare services. Improving infrastructure, deploying mobile health units, and increasing the number of community health workers focused on reproductive health can help close the rural-urban gap. Youth-friendly services should be offered in all health facilities.
5. **Empower Adolescents Through Comprehensive Sexual Education:**
 - **Promote Empowerment Programs:** Empowerment is a significant factor in contraceptive use. Empowerment initiatives that build adolescents' self-efficacy, confidence, and decision-making skills should be prioritized in Kenya. These programs can be integrated into schools, youth centers, and community organizations, ensuring adolescents are equipped to make informed reproductive health decisions.
 - **Integrate Partner Involvement:** Encourage programs that involve adolescents' partners in discussions about contraceptive use. Partner support has been shown to influence contraceptive decisions, and involving both partners in education and counseling sessions can enhance mutual understanding and support. Encourage the involvement of adolescents' partners in discussions about contraceptive use. Partner-inclusive education and counseling sessions can improve mutual understanding, reduce resistance to contraceptive methods, and foster supportive relationships.
6. **Improve Contraceptive Counseling and Service Delivery:**
 - **Enhance Quality of Counseling:** The study indicates gaps in contraceptive counseling. The Ministry of Health should prioritize

training healthcare providers to deliver high-quality, adolescent-friendly contraceptive counseling. Providers should offer comprehensive information on all contraceptive options, address side effects, and support method switching if needed. This training is particularly crucial in county-level health facilities.

- **Utilize Mass Media for Awareness:** Since mainstream media plays a critical role in disseminating information, leveraging mass media platforms is key in providing accurate and youth-friendly reproductive health information. Leveraging popular Kenyan media platforms, including TV, radio, and social media, is crucial in broadcasting accurate, youth-friendly information about modern contraceptives. This approach can reach diverse adolescent populations, including those outside formal education systems.

7. Monitor and Evaluate Interventions:

- **Ongoing Evaluation:** Regular monitoring and evaluation of the implemented interventions are necessary to assess their effectiveness. Establishing a robust monitoring and evaluation framework for all interventions to measure their impact and effectiveness is of great importance. Regular data collection and analysis can identify gaps and guide improvements, ensuring that programs meet the needs of Kenyan adolescents across different regions.
- **Feedback Mechanisms:** Establish feedback mechanisms that allow adolescents to express their needs and challenges related to contraceptive use. Develop platforms, such as anonymous surveys or hotlines, to gather feedback directly from adolescents. Understanding

their experiences, challenges, and preferences can help refine programs and make them more responsive to the unique needs of Kenya's adolescent population.

Implementing these recommendations, stakeholders can address the multifaceted barriers to contraceptive use among young adolescents and enhance reproductive health outcomes in Kenya. This approach will contribute to empowering adolescents, reducing unintended pregnancies, and promoting overall well-being among young people.

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ANNEXES

Annex I: Questionnaire

Female Questionnaire

Date: 10 Aug 2022

Version: 13



country specific
baseline
informatio

Female Questionnaire

n

IDENTIFICATION															
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:												
001a	Are you in the correct household?	Yes.....1 No.....0	Always												
001b	RETURN TO INTERVIEW THE CORRECT HOUSEHOLD.		001a = 0												
002a	Your name: [Interviewer name from Household Questionnaire] Is this your name?	Yes.....1 No.....0	Always												
002b	Enter your name below. <i>Please record your name</i>	Interviewer's Name	002a = 0												
003a	Is this date and time correct? [ODK will display on screen]	Yes.....1 No.....0	Always												
003b	Record the correct date and time.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; padding: 2px;">Day</td> <td style="width: 33%; text-align: center; padding: 2px;">Month</td> <td style="width: 33%; text-align: center; padding: 2px;">Year</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center; padding: 2px;">Hours</td> <td style="text-align: center; padding: 2px;">Min</td> <td style="text-align: center; padding: 2px;">AM/PM</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </table>	Day	Month	Year				Hours	Min	AM/PM				003a = 0
Day	Month	Year													
Hours	Min	AM/PM													
004a	The following information is from the Household Questionnaire. Please review to make sure you are interviewing the correct respondent. [ODK will display the ENTER LOCATION INFORMATION, Enumeration Area, Structure Number, and Household Number entered into the Household Questionnaire linked to this Female Questionnaire.] Is the above information correct?	Yes.....1 No.....0	Always												
004b	GO TO THE RIGHT HOUSEHOLD OR UPDATE THE HOUSEHOLD ROSTER IF NEEDED		004a = 0												

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
005	CHECK: You should be attempting to interview [Respondent's Name]. Is that correct? <i>If misspelled, select "yes" here and update the name in question "010."</i> <i>If this is the wrong person, you have two options:</i> <i>(1) exit and ignore changes to this form. Open the correct form.</i> <i>Or</i> <i>(2) find and interview the person whose name appears above.</i>	Yes.....1 No.....0	Always
006	Is the respondent present and available to be interviewed today?	Yes.....1 No.....0	Always
007	How well acquainted are you with the respondent?	Very well acquainted 1 Well acquainted 2 Not well acquainted 3 Not acquainted 4	006 = 1

INFORMED CONSENT			
<i>Find the woman between the ages of 15-49 associated with this Female Questionnaire. The interview must have auditory privacy. Administer the consent procedures.</i>			
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
008a	Provide a paper copy of the Consent Form to the respondent and read it. / Read the verbal consent text. May I begin the interview now?	Yes.....1 No.....0	006 =1
008b	Respondent's signature <i>Please ask the respondent to sign or check the box in agreement of their participation.</i>	GATHER SIGNATURE: Check box: ☐	008a = 1
009	Interviewer's name: [Interviewer name from Household Questionnaire] <i>Mark your name as a witness to the consent process.</i>		008a = 1
010	Respondent's first name: [ODK will display the Respondent's name from linked Household Roster] <i>You may correct the spelling here if it is not correct, but you must be interviewing the person whose name appears below.</i>		008a = 1
011	Was this woman interviewed in ANY previous survey?	Yes.....1 No.....0	008a = 1

Section 1 – Respondent’s Background, Marital Status, Employment, and Migration			
Now I would like to ask about your background and socioeconomic conditions.			
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
101	In what month and year were you born? The age in the household roster is [AGE].	Month Year	008a = 1
102	How old were you at your last birthday? <i>Must be more than 14.</i>	Age	008a = 1
102a	CHECK: Based on the response you entered in 102, the respondent’s age is more than 1 year different than she answered during the previous annual survey. Did you enter 102 correctly?	Yes.....1 No.....0	102 more than 1 yr discrepant from baseline
102b	RETURN TO 102 TO CORRECT BEFORE CONTINUING		102a = 0
102c	In general, would you say your health is very good, good, moderate, bad, or very bad?	Very good 1 Good 2 Moderate 3 Bad 4 Very bad 5 No response -99	008a = 1
103	Have you attended school in the past 12 months?	Yes.....1 No.....0 No response.....-99	102 ≥ 15 & ≤ 25
104	What is the highest level of school you attended? <i>Only record formal schooling. Do not record bible or koranic school or short courses.</i>	Never Attended.....0 LEVEL 1 1 LEVEL 2 2 LEVEL 3 3 LEVEL 4 4 LEVEL 5 5 No response.....-99	008a = 1
105	What is the highest [GRADE/ FORM / STANDARD / YEAR / CLASS] of school that you have completed at that level?	[GRADE/ FORM / STANDARD / YEAR /	103 = 1 AND 104 > 0

	<i>Enter -99 for no response</i>	CLASS]	
X S_101	How old were you when you left school?	Age	103 ≠ 1

NO	QUESTIONS AND FILTERS	CODING CATEGORIES					Relevant If:
The next set of questions ask about difficulties you may have doing certain activities because of a health problem							
LC	IN LAGOS ONLY:	No difficulty	Some difficulty	A lot of difficulty	Can not do at all	N	008a = 1
L	Can you please tell me if you currently have no difficulty, some difficulty, a lot of difficulty, or cannot do at all each of the following:					R	
100		1	2	3	4	-	
	a. Seeing, even if wearing glasses?	1	2	3	4	9	
	b. Hearing, even if wearing hearing aid?	1	2	3	4	-	
		1	2	3	4	9	
	c. Walking or climbing steps?	1	2	3	4	-	
		1	2	3	4	9	
	d. Remembering things or concentrating?	1	2	3	4	-	
		1	2	3	4	9	
	e. Self-care such as washing or dressing?					-	
						9	
						9	
	f. Communicating, for example understanding or being understood?					-	
						9	
						9	
						-	
						9	
						9	
107	What was the main reason you stopped attending school?	Finished education..... 1 Failed exams 2 Did not enjoy school 3 School was too far..... 4 Wanted to start working 5 Got married 6 Got pregnant..... 7 Parents did not want you to continue..... 8 Economic reasons 9 Menstruation/period 10 Illness 11 Other 96 No response.....-99					103 = 0 AND 104 ≠ 0
108	Are you currently enrolled in any training program?	Yes 1 No.....0 No response.....-99					102 ≥ 15 & ≤ 25 AND 103 = 0 OR 104 ≠ 0

109	Are you currently married or living together with a man as if married? Probe: If no, ask whether the respondent is divorced, separated, or widowed.	Yes, currently married..... 1 Yes, living with a man..... 2 Not currently in union: Divorced / separated..... 3 Not currently in union: Widow..... 4 No, never in union..... 5 No response.....-99	008a = 1
110	What is the highest level of schooling your husband/partner attended, no schooling, primary, secondary, or higher?	Never Attended.....0 Primary..... 1 Secondary..... 2 Higher 3 Don't know-98 No response.....-99	109 = 1 or 2

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
PL _101	Did you start living with your current husband / partner in past 12 months?	Yes.....1 No.....0 No response.....-99	109 = 1 or 2
XS _102a	How much were you involved in the decision to get married – very much, not very much or not at all?	Very much.....1 Not very much2 Not at all3 No response.....-99	102 ≥ 15 & < 20 AND 109 ≠ 5
XS _102b	How much do you think you will be involved in the decision to get married – very much, not very much or not at all?	Very much1 Not very much2 Not at all3 No response.....-99	102 ≥ 15 & < 20 AND 109 = 5
113	Have you ever had a partner / boyfriend?	Yes.....1 No.....0 No response.....-99	102 ≥ 15 & < 20 AND 109 = 5
XS _102	How old were you the first time you had a boyfriend or partner?	Age	113 = 1 OR 109 ≠ 5
114	Do you currently have a boyfriend or partner?	Yes.....1 No.....0 No response.....-99	109 ≠ 1 or 2 AND 113 = 1
INF _1	In what month and year did you begin this relationship? <i>Select 'Do not know' for month and '2030' for year to indicate 'No response'.</i>	Month Year	114 = 1
XS _103	How many times have you been married or lived with a man as if married?	Number	109 ≠ 5
XS _104	In what month and year did you start living with your FIRST husband / partner?	Month Year	XS_103 > 1
XS _104a	CHECK: Based on the response you entered in XS_104, the respondent was possibly 15 years old or younger at the time of her first marriage. Did you enter XS_104 correctly?	Yes.....1 No.....0	XS_104 age at marriage ≤ 15
XS _104b	RETURN TO XS_104 TO CORRECT BEFORE CONTINUING		XS_104a = 0

NO	QUESTIONS AND FILTERS	CODING CATEGORIES		Relevant If:
PL _11 5	Now I would like to ask about when you started living with your CURRENT husband / partner. In what month was that?	Month		PL_10 1 = 1
XS _11 5	Now I would like to ask about when you started living with your CURRENT/MOST RECENT husband / partner. In what month and year was that?	Month Year	 	109 = 1 or 2
LC L _10 1	ADD ON A COUNTRY SPECIFIC BASIS: Does your husband / partner have other wives or does he live with other women as if married?	Yes.....1 No.....0 Don't know-88 No response.....-99		109 = 1 or 2
XS _10 5	How long have you been living continuously in [NAME OF CURRENT PLACE OF RESIDENCE]? <i>Enter 0 if less than 1 year. Enter -95 for always. Enter -96 for visitor. Enter -99 for no response.</i>	Years		008a = 1
LC L _10 2	ADD IN LAGOS ONLY: How long have you been living in Lagos? <i>Enter 0 if less than 1 year. Enter -96 for visitor. Enter -99 for no response.</i>	Years		008a = 1
XS _10 6	How long have you been living continuously in this particular house / structure? <i>Enter 0 if less than 1 year. Enter -95 for always. Enter -96 for visitor. Enter -99 for no response.</i>	Years		008a = 1

116	In the last 12 months, for how many nights have you slept away from your community? Probe: Community is the area where you are currently living. <i>Enter -99 for no response.</i>	Nights	008a = 1
117	In the last 12 months, for how many nights has your husband/partner slept away from your community? Probe: Community is the area where you are currently living. <i>Enter -99 for no response.</i>	Nights	109 = 1 or 2

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
118	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Aside from your own housework, have you done any work in the last seven days?	Yes.....1 No.....0 No response.....-99	008a = 1
119	Aside from your own housework, have you done any work in the last 12 months?	Yes.....1 No.....0 No response.....-99	118 = 0
120	Are you paid in cash or kind for this work or are you not paid at all?	Cash.....1 Cash and kind.....2 In-kind.....3 Not paid.....4 No response.....-99	118 = 1 OR 119 = 1
121	Who usually makes decisions about making large household purchases: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent.....1 Husband/partner2 Respondent and husband/partner3 Someone else.....4 No response.....-99	1109 = 1 or 2
122	Who usually makes decisions about making household purchases for daily needs: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent.....1 Husband/partner2 Respondent and husband/partner3 Someone else.....4 No response.....-99	1109 = 1 or 2
123	Who usually makes decisions about getting medical treatment for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent.....1 Husband/partner2 Respondent and husband/partner3 Someone else.....4 No response.....-99	1109 = 1 or 2
EM P _1	Who usually makes decisions about buying clothes for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent.....1 Husband/partner2 Respondent and husband/partner3 Someone else.....4 No response.....-99	1109 = 1 or 2
EM P _2	Who usually makes decisions about how your earnings will be used: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent.....1 Husband/partner2 Respondent and husband/partner3 Someone else.....4 No response.....-99	1120 = 1 or 2 AND 109 = 1 or 2

EM P _3	Who usually makes decisions about how your husband/partner's earnings will be used: you, your husband/partner, you and your husband/partner jointly, or someone else?	Respondent..... 1 Husband/partner 2 Respondent and husband/partner 3 Someone else..... 4 No response.....-99	109 = 1 or 2
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NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
EM P _4	Do you own any land, either jointly or by yourself? PROBE: This does not include land owned only by your husband.	Yes 1 No 0 No response.....-99	008a = 1
EM P _5	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	More..... 1 Less 2 Same..... 3 No response.....-99	120 = 1 or 2 AND 109 = 1 or 2
EM P _6	In the last 30 days, did you take part in any of these activities? <i>Read each option aloud and select if yes.</i>	Agricultural work..... 1/0 Raising poultry / livestock 1/0 Producing ghee / cheese / butter 1/0 Collecting fuel / wood-cutting . 1/0 Preparing food..... 1/0 Sewing / embroidery / crocheting..... 1/0 Producing straw products / carpets / textile / ropes 1/0 Offering services for others in a house, shop, or hotel.....1/0 Independent paid work..... 1/0 Buying / selling goods in the market / the street / at home 1/0 Helping in construction work... 1/0 Learning a skill 1/0 None of the above.....-99	008a = 1
FIN _1	Do you currently have any savings for the future, such as a bank account, savings group, or cash?	Yes 1 No 0 No response.....-99	008a = 1
FIN _2	Do you currently have any mobile money accounts (e.g. Mpesa)?	Yes 1 No 0 No response.....-99	008a = 1

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
124	Do you have a way of accessing the internet?	Yes 1 No..... 0 No response.....-99	008a = 1
125	How often do you access the internet?	Daily 1 A few times per week..... 2 A few times per month..... 3 Less than once per month..... 4 Not at all..... 5 No response.....-99	124 = 1
126	What devices do you use to access the internet? <i>Read all options aloud and select all that apply</i>	Mobile phone 1/0 Laptop or desktop computer..... 1/0 Tablet 1/0 Other 1/0 No response.....-99	124 = 1 AND 125 ≠ 5
126a	What other device do you use to access the internet?		126 = "Other"
127	When you use the internet, how often are you able to use it privately?	Always 1 Sometimes 2 Rarely 3 Never 4 No response.....-99	124 = 1 AND 125 ≠ 5

Section 2 – Reproduction, Pregnancy & Fertility Preferences			
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	Yes.....1 No.....0 No response.....-99	008a = 1 AND baseline 201 = 0
202	How many times have you given birth? <i>Enter -99 for no response.</i>	Number	201 = 1
PL 201	Have you had any births since [LAST INTERVIEW MONTH AND YEAR]?	Yes.....1 No.....0 No response.....-99	201 = 1 OR baseline 201 = 1
PL 202	When was that birth? <i>Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> <i>CALENDAR: Enter the birth and duration of pregnancy in the calendar.</i>	Month Year	PL_201 = 1
PL 203	Have you had a pregnancy that miscarried, was aborted, or ended in a stillbirth since [LAST INTERVIEW MONTH AND YEAR]?	Yes.....1 No.....0 No response.....-99	008a = 1
PL 204	When did that pregnancy end? <i>Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> <i>CALENDAR: Enter the termination and duration of the pregnancy in the calendar.</i>	Month Year	PL_203 = 1
XS 201	When was your FIRST birth? <i>Please record the date of the first live birth. Date should be found by calculating forward or backward from memorable events if needed. Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> <i>CALENDAR: If the birth was after [START OF CALENDAR, i.e. JANUARY 2020] enter the birth and duration of</i>	Month Year	202 > 1

	<i>pregnancy in the calendar.</i>		
XS 20 2	When was your MOST RECENT birth? <i>Please record the date of the MOST RECENT live birth. The date should be found by calculating backwards from memorable events if needed. Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> CALENDAR: <i>If the birth was after [START OF CALENDAR, i.e. JANUARY 2020] enter the birth and duration of pregnancy in the calendar.</i>	Month Year	202 > 0

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
XS _20 3	Have you had any births since /START OF CALENDAR, i.e. JANUARY 2020]?	Yes.....1 No.....0 No response.....-99	201 = 1
XS _20 4	When was that birth? <i>Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> CALENDAR: Enter the birth and duration of pregnancy in the calendar.	Month Year	XS_20 3 = 1
XS _20 5	Have you had a pregnancy that miscarried, was aborted, or ended in a stillbirth since /START OF CALENDAR, i.e. JANUARY 2020]?	Yes.....1 No.....0 No response..... -99	008a = 1
XS _20 6	When did that pregnancy end? <i>Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> CALENDAR: Enter the termination and duration of the pregnancy in the calendar.	Month Year	XS_20 5 = 1
203	Are you pregnant now?	Yes.....1 No.....0 Unsure.....2 No response.....-99	008a = 1
204	How many months pregnant are you? <i>Please record the number of completed months. Enter -88 for do not know Enter -99 for no response.</i> CALENDAR: Enter number of months pregnant in the calendar.	Number of months	203 = 1

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
205	When did your last menstrual period start? <i>If you select days, weeks, months or years, you will enter a number for x on the next screen. Enter 0 days for today, not 0 weeks/months/years.</i>	days ago weeks ago months ago years ago Menopausal / Hysterectomy ...5 Before last birth6 Never menstruated7 No response.....-99	008a = 1
INF 2	Have you had a procedure to remove the uterus?	Yes.....1 No.....0 Do not know-88 No response.....-99	205 ≠ 5 AND 205 > 6 months
INF 3	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	Yes.....1 No.....0 Do not know-88 No response.....-99	008a = 1
INF 4	Is this just before her period begins, during her period, right after her period has ended, halfway between two periods?	Just before her period begins ..1 During her period.....2 Right after her period has ended.....3 Halfway between two periods.4 All days are equal5 Do not know-88 No response.....-99	INF_3 = 1
206a	Now I would like to ask a question about your last birth. At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any / any more children at all?	Then1 Later.....2 Not at all3 No response.....-99	201 = 1 AND 203 ≠ 1

206 b	Now I would like to ask a question about your current pregnancy. At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any / any more children at all?	Then1 Later2 Not at all3 No response.....-99	203 = 1
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
207 a	Before you became pregnant with your last birth, which best describes your situation? <i>Read response options and select one</i>	You and your partner had agreed for you to get pregnant.....1 You and your partner had discussed having children together but hadn't agreed for you to get pregnant.....2 You and your partner had never discussed having children together3 No response.....-99	(201 = 1 OR baseline 201 = 1) AND 203 ≠ 1
207 b	Before you became pregnant with your current pregnancy, which best describes your situation? <i>Read response options and select one</i>	You and your partner had agreed for you to get pregnant.....1 You and your partner had discussed having children together but hadn't agreed for you to get pregnant.....2 You and your partner had never discussed having children together3 No response.....-99	203 = 1

208 a	Now I have some questions about the future. Would you like to have a/another child or would you prefer not to have any / any more children?	Have a/another child1 No more/prefer no children.....2 Says she can't get pregnant.....3 Undecided / Don't know-88 No response.....-99	203 ≠ 1 AND 008a = 1
208 b	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	Have a/another child1 No more/prefer no children.....2 Says she can't get pregnant.....3 Undecided / Don't know-88 No response.....-99	203 = 1
209 a	How long would you like to wait from now before the birth of a/another child? <i>If you select months or years, you will enter a number for x on the next screen.</i> <i>Select "Years" if more than 36 months.</i> <i>Please check that you correctly entered the value for months/years.</i>	Months (1) Years (2) Soon / now3 Says she can't get pregnant.....4 Other5 Don't know-88 No response.....-99	208a = 1
209 b	After the birth of the child you are expecting now, how long would you like to wait before the birth of another child? <i>If you select months or years, you will enter a number for x on the next screen.</i> <i>Select "Years" if more than 36 months.</i> <i>Please check that you correctly entered the value for months/years.</i>	Months (1) Years (2) Soon / now3 Says she can't get pregnant.....4 Other5 Don't know-88 No response.....-99	208b = 1
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
INF 5	Are you currently trying to become pregnant?	Yes 1 No.....0 No response-99	203 ≠ 1 AND INF_2 ≠ 1

INF 6	How long have you been trying to become pregnant? <i>You will enter a number for X months or X years.</i> <i>Probe: 'Do not know' or 'No response', probe to confirm if trying for more than 1 year.</i>	Months (1) _____ Years (2) _____ Do not know-88 No response.....-99	INF_5 = 1
210a	When you found out you were pregnant, how did you feel?	Very happy 1 Sort of happy 2 Mixed happy and unhappy 3 Sort of unhappy 4 Very unhappy 5 No response.....-99	203 = 1
210b	If you got pregnant now, how would you feel?	Very happy 1 Sort of happy 2 Mixed happy and unhappy 3 Sort of unhappy 4 Very unhappy 5 No response.....-99	203 ≠ 1 AND 008a = 1
Section 3 – Contraception Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. <i>An image will appear on the screen for some methods. If the respondent says that she has not heard of the method or if she hesitates to answer, read the probe aloud and show her the image, if available.</i>			
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
301a	Have you ever heard of female sterilization? PROBE: Women can have an operation to avoid having any more children. [NO IMAGE]	Yes.....1 No.....0 No response.....-99	008a = 1
301b	Have you ever heard of male sterilization? PROBE: Men can have an operation to avoid having any more children. [NO IMAGE]	Yes.....1 No.....0 No response.....-99	008a = 1

301c	Have you ever heard of the contraceptive implant? PROBE: Women can have one or several small rods placed in their upper arm by a doctor or nurse, which can prevent pregnancy for one or more years. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes.....1 No.....0 No response.....-99	008a = 1
301d	Have you ever heard of the IUD? PROBE: Women can have a loop or coil placed inside them by a doctor or a nurse. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes.....1 No.....0 No response.....-99	008a = 1
301e	Have you ever heard of injectables? PROBE: Women can have an injection that stops them from becoming pregnant for one or more months. [IMAGE OF METHOD (BOTH SMALL AND LARGE NEEDLE) WILL APPEAR ON SCREEN]	Yes.....1 No.....0 No response.....-99	008a = 1
301f	Have you heard that there is a type of injectable that you can inject yourself? [IMAGE OF METHOD (SMALL NEEDLE) WILL APPEAR ON SCREEN]	Yes.....1 No.....0 No response.....-99	301e = 1
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
301g	From whom did you hear about it?	Provider 1 Community health worker 2 Pharmacist..... 3 Friend..... 4 Husband/partner..... 5 Other family member..... 6 Radio/TV 7 Books/Magazine 8 Advertisement/Flyer..... 9 Other 96 No response.....-99	301f = 1

301g 2	Would your partner be supportive of you using an injection at home?	Yes1 No.....0 Don't know-88 No response.....-99	301e = 1 OR 301f = 1
301h	Have you ever heard of the (birth control) pill? PROBE: Women can take a pill every day to avoid becoming pregnant. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes1 No.....0 No response.....-99	008a = 1
301i	Have you ever heard of emergency contraception? PROBE: As an emergency measure after unprotected sexual intercourse women can take special pills at any time within five days to prevent pregnancy. [NO IMAGE]	Yes1 No.....0 No response.....-99	008a = 1
301j	Have you ever heard of male condoms? PROBE: Men can put a rubber sheath on their penis before sexual intercourse. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes1 No.....0 No response.....-99	008a = 1
301k	Have you ever heard of female condoms? PROBE: Women can put a sheath in their vagina before sexual intercourse. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes1 No.....0 No response.....-99	008a = 1
301l	Have you ever heard of the diaphragm? PROBE: Women can place a thin flexible disk in their vagina before sexual intercourse.	Yes1 No.....0 No response.....-99	008a = 1

	[IMAGE OF METHOD WILL APPEAR ON SCREEN]		
301 m	Have you ever heard of foam or jelly as a contraceptive method? PROBE: Women can place a suppository, jelly, or cream in their vagina before sexual intercourse to prevent pregnancy.	Yes1 No.....0 No response.....-99	008a = 1

	[IMAGE OF METHOD WILL APPEAR ON SCREEN]		
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
301n	Have you ever heard of the standard days method or Cycle Beads? PROBE: A Woman can use a string of colored beads to know the days she can get pregnant. On the days she can get pregnant, she and her partner use a condom or do not have sexual intercourse. [IMAGE OF METHOD WILL APPEAR ON SCREEN]	Yes 1 No.....0 No response.....-99	008a = 1
301o	Have you ever heard of the Lactational Amenorrhea Method or LAM? [NO DESCRIPTION; NO IMAGE]	Yes 1 No.....0 No response.....-99	008a = 1
301p	Have you ever heard of the rhythm method? PROBE: Women can avoid pregnancy by not having sexual intercourse on the days of the month they think they can get pregnant. [NO IMAGE]	Yes 1 No.....0 No response.....-99	008a = 1
301q	Have you ever heard of the withdrawal method? PROBE: Men can be careful and pull out before climax. [NO IMAGE]	Yes 1 No.....0 No response.....-99	008a = 1
301r	Have you ever heard of any other ways or methods that women or men can use to avoid pregnancy?	Yes 1 No.....0 No response.....-99	008a = 1
302	Are you or your partner currently doing something or using any method to delay or avoid getting pregnant?	Yes 1 No.....0 No response.....-99	203 ≠ 1 AND 008a = 1

303	Just to check, are you or your partner doing any of the following to avoid pregnancy: deliberately avoiding sex on certain days, using a condom, using withdrawal or using emergency contraception?	Yes 1 No.....0 No response.....-99	302 ≠ 1
304	Which method or methods are you using? Probe: Anything else? <i>Select all methods mentioned. Be sure to scroll to bottom to see all choices.</i>	Female sterilization 1/0 Male sterilization..... 1/0 Implant 1/0 IUD 1/0 Injectables 1/0 Pill 1/0 Emergency Contraception..... 1/0 Male Condom..... 1/0 Female Condom 1/0 Diaphragm..... 1/0 Foam/Jelly..... 1/0 Std. Days/Cycle beads..... 1/0 LAM..... 1/0 Rhythm method..... 1/0 Withdrawal..... 1/0	302 = 1 OR 303 = 1
		Other traditional methods...1/0 No response.....-99	
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
C A L C C M	CALCULATE: CURRENT METHOD THIS WILL NOT APPEAR ON THE SCREEN ODK will identify the most effective method currently being used by the respondent by selecting the highest method in the choice list	Female Sterilization 1 Male Sterilization 2 Implant 3 IUD 4 Injectables 5 Pill..... 7 Emergency Contraception..... 8 Male Condom 9 Female Condom 10 Diaphragm..... 11 Foam/Jelly..... 12 Std. Days/Cycle beads..... 13 LAM..... 14 Rhythm method..... 30 Withdrawal..... 31 Other traditional methods 39 No response.....-99	302 = 1 OR 303 = 1 AND 304 ≠ -99
LC L _30 1	ADD ON A COUNTRY SPECIFIC BASIS: PROBE: Was the injection administered via syringe or small needle?	Syringe 1 Small needle (Sayana Press) 2 No response.....-99	CALC CM = 5

	<i>Show the image to the respondent.</i> [IMAGES OF BOTH INJECTION SYSTEMS WILL APPEAR ON SCREEN]		
LC L _30 2	ADD ON A COUNTRY SPECIFIC BASIS: Who administered the injection? <i>Read all options</i>	Self..... 1 Partner/husband..... 2 Other family/friend 3 Doctor/nurse/midwife..... 4 Pharmacist/Drug shop employee 5 CHW 6 Another user I know... 7 No response.....-99	LCL_30 1 = 2
304 a	Do you like your [CURRENT METHOD]?	Yes 1 No 0 No response.....-99	302 = 1 OR 303 = 1 AND 304 ≠ -99
305	Does your husband/partner know that you are using [CURRENT METHOD]?	Yes 1 No 0 No response.....-99	302 = 1 OR 303 = 1 AND CALC CM ≠ 2, 9, or 31
305 a	Did you talk with your husband/partner about using your [CURRENT METHOD] before you started using, after you started using, or you have not talked about it?	Before using..... 1 After using 2 Has not talked to him 3 No response.....-99	302 = 1 OR 303 = 1
LC L _30 3	ADD ON A COUNTRY SPECIFIC BASIS: Did the provider tell you or your partner that this method was permanent?	Yes 1 No.....0 No response.....-99	CALC CM = 1 or 2

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
306	If you needed family planning, where would you go?	<u>Public sector</u> Govt. Hospital/polyclinic.... 11 Govt. Health center 12 Govt. Health post..... 13 Family planning clinic..... 14 Mobile clinic 15 Fieldworker/outreach/peer educator 16 Community event 17 <u>Private medical sector</u> Private hospital/clinic 21 Private doctor 22 Pharmacy 23 Chemical/drug store 24 FP/PPAG clinic 25 Maternity home 26 Community event 27 <u>Other source</u> Shop/market 31 Church 32 Community volunteer..... 33 Friend / relative 34 Other 96 Don't know -88 No response..... -99	302 ≠ 1 AND 303 ≠ 1
307	Why would you choose this location?	Close to home.....1/0 Discreet location.....1/0 Know confidentiality will be Respected.....1/0 Have the method that I want...1/0 Providers have a good Reputation.....1/0 Recommend by friend/relative.....1/0 Method available for low cost / free.....1/0 Other.....1/0 Don't know -88 No response..... -99	306 ≠ -88 or -99

308	Please tell me if you agree or disagree with the following statement: I would feel too shy or embarrassed to get family planning at a clinic, health center or physician's office if needed. PROBE: This question is specifically about your feelings.	Agree..... 1 Disagree.....0 No response.....-99	302 ≠ 1 AND 303 ≠ 1
309	Please tell me if you agree or disagree with the following statement: I would feel too shy or embarrassed to get family planning at the pharmacy or chemist if needed. PROBE: This question is specifically about your feelings.	Agree..... 1 Disagree.....0 No response.....-99	302 ≠ 1 AND 303 ≠ 1
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
310	You said that you are not currently using a contraceptive method. Do you think you will use a contraceptive method to delay or avoid getting pregnant at any time in the future?	Yes 1 No.....0 Don't know-88 No response.....-99	302 ≠ 1 AND 303 ≠ 1 AND 203 ≠ 1
311	Do you think you will use a contraceptive method to delay or avoid getting pregnant at any time in the future?	Yes 1 No.....0 Don't know -88 No response.....-99	302 ≠ 1 AND 303 ≠ 1 AND 203 = 1
312	When do you think you will start using a method?	Months (1) Years (2) Soon / now.....3 After the birth of this child.....4 Don't know-88 No response.....-99	310 = 1 OR 311 = 1

313	What method do you think you will use?	Female Sterilization..... 1 Male Sterilization 2 Implant 3 IUD..... 4 Injectables 5 Pill 7 Emergency Contraception 8 Male Condom..... 9 Female Condom 10 Diaphragm..... 11 Foam/Jelly 12 Std. Days/Cycle beads 13 LAM..... 14 Rhythm method..... 30 Withdrawal..... 31 Other traditional methods..... 39 No response.....-99	310 = 1 OR 311 = 1
314	Who would you prefer to have administer the injectable? <i>Read all options</i>	Health professional..... 1 Self 2 Partner/friend/family 3 Don't know -88 No response.....-99	313 = 5
315	Would your husband/partner be supportive of you using family planning?	Yes 1 No..... 0 Don't know -88 No response.....-99	(310 = 1 OR 311 = 1) AND 109 = 1 or 2
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
316	Before you started using [CURRENT METHOD], had you discussed the decision to delay or avoid pregnancy with your husband/partner?	Yes 1 No 0 Don't know -88 No response.....-99	(302 = 1 OR 303 = 1) AND 109 = 1 or 2
317	Would you say that using contraception is mainly your decision, mainly your husband/partner's decision or did you both decide together?	Mainly respondent 1 Mainly husband/partner 2 Joint decision 3 Other 96 No response.....-99	(302 = 1 OR 303 = 1) AND 109 = 1 or 2
Now I'm going to ask you a few sensitive questions about your relationship with your husband/partner. You do not have to answer these questions if you do not want to. We can pause at any time. If you do not feel comfortable answering any of the questions, let me know and I will either move onto the next statement or skip this section entirely.			

CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.

<i>CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.</i>					
N O	QUESTIONS AND FILTERS	CODING CATEGORIES			Relevant If:
318	In the last 12 months has your husband/partner: a. Made you feel bad or treated you badly for wanting to use a FP method to delay or prevent pregnancy? b. Tried to force or pressure you to become pregnant? c. Said he would leave you if you did not get pregnant? d. Told you he would have a baby with someone else if you did not get pregnant? e. Taken away your family planning or kept you from going to the clinic to get family planning? f. Hurt you physically because you did not get pregnant?	YES 1 1 1 1 1 1	NO 0 0 0 0 0 0	NR -99 -99 -99 -99 -99 -99	109 = 1 or 2
NO	QUESTIONS AND FILTERS	CODING CATEGORIES			Relevant If:
319	Since what month and year have you been using [CURRENT METHOD] without stopping? <i>Calculate backwards from memorable events if needed.</i> Most Recent Birth: [mm-yyyy] Current Marriage: [mm-yyyy] <i>Must be before today. Respondent must be at least 10 years old. Select 'Do not know' for month and '2030' for year to indicate 'No Response'.</i> CALENDAR: Enter episode of contraceptive use in the calendar.	Month Year			302 = 1 OR 303 = 1
	You first started using [CURRENT	Public sector			

320	METHOD] in [DATE FROM 319]. Where did you or your partner get it at that time? <i>Scroll to bottom to see all choices.</i>	Govt. Hospital/polyclinic .. 11 Govt. Health center 12 Govt. Health post 13 Family planning clinic 14 Mobile clinic 15 Fieldworker/outreach/peer educator 16 Community event..... 17 <u>Private medical sector</u> Private hospital/clinic..... 21 Private doctor 22 Pharmacy 23 Chemical/drug store 24 FP/PPAG clinic 25 Maternity home..... 26 Community event..... 27 <u>Other source</u> Shop/market 31 Church..... 32 Community volunteer 33 Friend / relative 34 Other 96 Don't know -88 No Response -99	CALC CM ≠ 14, 30, 31, 39, -99
321	When you obtained your [CURRENT METHOD], were you told by the provider about side effects or problems you might have with a method to delay or avoid pregnancy?	Yes..... 1 No..... 0 No response..... -99	320 ≠ .
322	Were you told what to do if you experienced side effects or problems?	Yes..... 1 No..... 0 No response..... -99	321 = 1
NO QUESTIONS AND FILTERS		CODING CATEGORIES	Relevant If:
IM P _30 1	CHECK. In question 304, the respondent mentioned that she had been using implants. Is that correct? <i>If she says she is not currently using implants, please verify her answer and go back to 304 and select the correct method.</i>	Yes 1 No..... 0	304 = ‘implants’
IM P _30 2	At the visit when the implant was inserted, were you told for how long the implant would protect you from pregnancy?	Yes 1 No 0 No response..... -99	304 = ‘implants’

IMP P _30 3	How long were you told? <i>If you select months or years, you will enter a number for X on the next screen.</i>	Months (1) Years (2) Don't know.....-88 No response.....-99	IMP_302 = 1
IMP P _30 4	Were you told where you could go to have the implant removed? <i>Provider: [Type of Provider from 320]</i>	Yes1 No.....0 Don't know-88 No response.....-99	304 = 'implants',
323	At that time, were you told by a family planning provider about methods of family planning other than [CURRENT METHOD] that you could use?	Yes1 No.....0 No response.....-99	320 ≠ .
324	At that time, were you told that you could switch to a different method in the future?	Yes1 No.....0 No response.....-99	320 ≠ .
325	During that visit, did you obtain the method you wanted to delay or avoid getting pregnant?	Yes1 No2 Did not have a preference3 No response.....-99	320 ≠ .
326	Why didn't you obtain the method you wanted?	Method out of stock that day.....1 Method not available at all.....2 Provider not trained to provide the method.....3 Provider recommended a different method.....4 Not eligible for method.....5 Decided not to adopt a method.....6 Too costly.....7 Other.....96 Don't know88 No response.....-99	325 = 2
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
327 a	During that visit, who made the final decision about what method you got?	You alone1 Provider.....2 Partner3 You and provider4 You and partner.....5 Other96 Don't know88 No response.....-99	320 ≠ .

327 b	Who made the final decision to use [LAM/RHYTHM]?	You alone1 Provider.....2 Partner3 You and provider4 You and partner.....5 Other96 Don't know 88 No response..... 99	CALC CM = 14, 30
328	Would you return to this provider? <i>Provider: [Type of Provider from 320]</i>	Yes1 No..... ...0 Don't know 88 No response..... 99	320 ≠ 34, or 96
329	Would you refer your relative or friend to this provider / facility?	Yes1 No..... ...0 Don't know 88 No response..... 99	320 ≠ 34, or 96
330	When you started using [CURRENT METHOD], did you feel pressured by your provider to accept a specific method?	Yes.....1 No..... ...2 Did not have a preference before speaking with the provider.....3 No response..... 99	302 = 1 OR 303 = 1

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
331	Which method did you feel pressured to use?	Female Sterilization 1 Male Sterilization 2 Implant 3 IUD 4 Injectables 5 Pill 7 Emergency Contraception 8 Male Condom 9 Female Condom 10 Diaphragm 11 Foam/Jelly 12 Std. Days/Cycle beads 13 LAM 14 Rhythm method 30 Withdrawal 31 Other traditional methods 39 No response -99	330 = 1
332	Right before you started using [CURRENT METHOD] in [DATE FROM 319], were you doing something else or using a different method to avoid getting pregnant?	Yes 1 No 0 No response -99	302 = 1 OR 303 = 1
333	Which method were you using?	Male Sterilization 2 Implant 3 IUD 4 Injectables 5 Pill 7 Emergency Contraception 8 Male Condom 9 Female Condom 10 Diaphragm 11 Foam/Jelly 12 Std. Days/Cycle beads 13 LAM 14 Rhythm method 30 Withdrawal 31 Other traditional methods 39 No response -99	332 = 1
LC L _30 4	ADD ON A COUNTRY SPECIFIC BASIS: PROBE: Was the injection administered via syringe or small needle? <i>Show the image to the respondent.</i>	Syringe 1 Small needle (Sayana Press) 2 No response -99	333 = 5

	[IMAGES OF BOTH INJECTION SYSTEMS WILL APPEAR ON SCREEN]		
IMP_305	In the past 12 months, have you tried to have your current implant removed?	Yes 1 No.....0 No response.....-99	304 = 'implant s'
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
IMP_306	Where did you go or who attempted to remove your implant?	<u>Public sector</u> Govt. Hospital/polyclinic 11 Govt. Health center.... 12 Govt. Health post 13 Family planning clinic 14 Mobile clinic..... 15 Fieldworker/outreach/pe er educator 16 Community event..... 17 <u>Private medical sector</u> Private hospital/clinic. 21 Private doctor 22 Pharmacy 23 Chemical/drug store... 24 FP/PPAG clinic..... 25 Maternity home..... 26 Community event..... 27 <u>Other source</u> Shop/market 31 Church..... 32 Community volunteer 33 Friend / relative 34 Self..... 40 Other..... 96 Don't know -88 No response..... -99	IMP_305 = 1
IMP_307	Why were you not able to have your implant removed?	Facility not open.....1/0 Qualified provider not available.....1/0 Provider attempted but could not remove the implant.....1/0 Provider refused.....1/0 Cost of removal services.....1/0 Travel cost.....1/0 Provider counseled against Removal.....1/0 Told to return another day.....1/0 Referred elsewhere.....1/0	IMP_305 = 1

		Other.....1/0 Don't know-88 No response.....-99	
334	Have you ever done anything or tried in any way to delay or avoid getting pregnant?	Yes.....1 No.....0 No response.....-99	302 ≠ 1 AND 303 ≠ 1 AND D baseline 327 ≠ 1
XS - 301	How old were you when you first used a method to delay or avoid getting pregnant? The respondent said she was [age from 102] years old at her last birthday. <i>Enter the age in years. Enter -88 if respondent does not know. Enter -99 if there is no response. Cannot be younger than 9.</i>	Age _____	302 = 1 OR 303 = 1 OR 334 = 1
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
335	How many living children did you have at that time, if any? Note: The respondent said that she gave birth [number of live births] times in 202. <i>Enter -99 for no response</i>	Number _____	(201 = 1 OR baseline 201 = 1) AND 334 = 1
336	Have you used emergency contraception at any time in the last 12 months? PROBE: As an emergency measure after unprotected sexual intercourse women can take special pills at any time within three to five days to prevent pregnancy.	Yes.....1 No.....0 No response.....-99	304 ≠ 1 emergency contraception

337	You said that you do not want any / anymore children and that you are not using a method to avoid pregnancy. Can you tell me the reason why you are not using a method to prevent pregnancy? <i>RECORD ALL REASONS MENTIONED</i> <i>Cannot select “Do Not Know” or “No response” with other options.</i> <i>Cannot select “Not married” if 109 is “Yes, currently married”.</i> <i>Scroll to the bottom to see all choices.</i>	Not married.....1/0 Infrequent sex / not having sex.....1/0 Menopausal/Hysterectomy.....1/0 Subfecund / infecund1/0 Not menstruated since last birth.....1/0 Breastfeeding.....1/0 Husband away for multiple days.....1/0 Up to God / fatalistic.....1/0 Respondent opposed.....1/0 Husband / partner opposed.....1/0 Others opposed.....1/0 Religious prohibition.....1/0 Knows no method.....1/0 Knows no source.....1/0 Fear of side effects.....1/0 Health concerns.....1/0 Lack of access / too far.....1/0 Costs too much.....1/0 Preferred method not available.....1/0 No method available.....1/0 Inconvenient to use.....1/0 Interferes with body's processes.....1/0 Other.....1/0 Don't know-88 No response.....-99	(302 ≠ 1 AND 303 ≠ 1) AND ((209a or 209b > 2 years) OR (208a or 208b = 2))
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
338	Would you say that not using contraception is mainly your decision, mainly your husband/partner's decision or did you both decide together?	Mainly respondent.....1 Mainly husband/partner.....2 Joint Decision.....3 Other.....96 No response.....-99	302 ≠ 1 AND 303 ≠ 1 AND 203 ≠ 1

339	In the last 12 months, were you visited by a community health worker who talked to you about family planning?	Yes.....1 No.....0 No response.....-99	1008a = 1
340	In the last 12 months, have you visited a health facility or camp for care for yourself or your children? <i>For any health services</i>	Yes.....1 N.....0 No response.....-99	1008a = 1
341	Did any staff member at the health facility speak to you about family planning methods?	Yes.....1 No.....0 No response.....-99	340 = 1
342	In the last 12 months have you: a. Heard about family planning on the radio? b. Seen anything about family planning on the television? c. Read about family planning in a newspaper or magazine? d. Received a voice or text message about family planning on a mobile phone? e. Seen anything on social media about family planning that is Facebook, Viber, Twitter, WhatsApp or others?	YES NO NR	008a = 1
N O	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
343	People have different opinions about family planning. In your community, would you say most people, some people or few people have the following opinions about family planning: a. Adolescents who use family planning are promiscuous. b. Using family planning preserves a woman's health c. Family planning is only for women who are married. d. Women who use family planning can better support their children's schooling e. Family planning is only for women who don't want any more children.	MOS T 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 -99 -99 -99 -99 -99	008a = 1

	f. People who use family planning have a better quality of life.	1	2	3	-99		
344	Now, we would like to know about your personal opinions about these issues. Do you strongly agree, agree, disagree, strongly disagree with the following statements?	STRO - NGL Y DISA G-REE	DISAG R EE	A G R E E	S T R O - N G L Y A G R E E	NR	008a = 1
	a. Adolescents who use family planning are promiscuous.	1	2	3	4	-99	
	b. Using family planning preserves a woman’s health	1	2	3	4	-99	
	c. Family planning is only for women who are married.	1	2	3	4	-99	
	d. Women who use family planning can better support their children’s schooling	1	2	3	4	-99	
	e. Family planning is only for women who don't want any more children.	1	2	3	4	-99	
	f. People who use family planning have a better quality of life.	1	2	3	4	-99	
NO	QUESTIONS AND FILTERS	CODING CATEGORIES				Relevant If:	
345	How important is it for you to achieve the following in the next two years:	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT IMPORTANT	NR		102 ≥ 15 & ≤ 20
	a. Complete secondary school / technical school / vocation school	1	2	3	-99		
	b. Attend university / tertiary institution	1	2	3	-99		
	c. Find a husband/partner	1	2	3	-99		
	d. Have children	1	2	3	-99		

346	Do you have any health insurance or are you a member of a mutual health organization?	Yes.....1 No..... .0 No response.....-99	008a = 1
347	What type of health insurance do you have? <i>RECORD ALL MENTIONED</i>	National/District Health Insurance (NHIS)1/0 Health insurance through employer1/0 Mutual health organization/Community-based health insurance.....1/0 Other privately purchased Commercial health insurance1/0 Other.....1/0 No response.....-99	346 = 1

Section 4 – Sexual Activity

CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.

Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
401	How old were you when you first had sexual intercourse? <i>Current age: [age from 102] Number of live births: [births from 202] Enter the age in years. Enter -77 if she never had sex. Enter -88 if respondent does not know. Enter -99 for no response.</i>	Age _____	008a = 1 AND baseline 401 = -77, -88 or -99
401a	You have entered that the respondent was X years old when she first had sexual intercourse. Is this what she said? <i>Go back and correct 401 if it is not correct.</i>	Yes1 No.....0	401 ≥ 0 AND 401 < 10 years AND 401 ≠ -77, -88 or -99

402	Looking back to the first time you had sexual intercourse, do you think you would have preferred to: have waited longer before having sex with anyone, not have waited so long, or was it the right time?	Waited longer.....1 Not have waited so long..2 It was the right time.....3 No response.....-99	102 ≥ 15 & ≤ 20 AND 401 ≥ 0 AND baseline 402 = .				
403	The first time you had sexual intercourse, would you say you and your partner were both equally willing to have sexual intercourse was one of you more willing than the other?	Equally willing.....1 Respondent more willing 2 Partner more willing.....3 No response.....-99	102 ≥ 15 & ≤ 20 AND 401 ≥ 0 AND baseline 403 = .				
404	Which of these applied to you at the first time you had sex? <i>Read each option aloud and select if yes.</i>	I was curious.....1/0 I was carried away.....1/0 I was under the influence of a substance.....1/0 I was doing what was expected of me.....1/0 I was forced against my will..1/0 None of the above.....-99	102 ≥ 15 & ≤ 20 AND 401 ≥ 0 AND baseline 404 = .				
NO	QUESTIONS AND FILTERS	CODING CATEGORIES					
			Relevant If:				
405	Did you and your partner want to avoid a pregnancy the first time you had sexual intercourse?	Yes.....1 No.....0 No response.....-99	102 ≥ 15 & ≤ 20 AND 401 ≥ 0 AND baseline 405 = .				
406	Did you or your partner do something or use any method to delay or avoid getting pregnant?	Yes.....1 No.....0 No response.....-99	405 = 1				
407	When was the last time you had sexual intercourse? <i>If less than 12 months ago, answer must</i>	<table><tr><td></td><td>days ago</td></tr><tr><td></td><td>weeks ago</td></tr></table>		days ago		weeks ago	401 ≥ 0
	days ago						
	weeks ago						

	<i>be recorded in months, weeks, or days.</i> <i>Enter 0 days for today.</i> <i>You will enter a number for X on the next screen.</i>	<table border="1"> <tr> <td></td><td>months ago</td></tr> <tr> <td></td><td>years ago</td></tr> </table>		months ago		years ago	
	months ago						
	years ago						
408	The last time you had sex did you or your partner use any method to avoid or prevent a pregnancy?	Yes..... 1 No.....0 No response.....-99	401 ≥ 0				
409	What method did you or your partner use?	Female Sterilization..... 1 Male Sterilization..... 2 Implant..... 3 IUD..... 4 Injectables..... 5 Pill 7 Emergency Contraception 8 Male Condom..... 9 Female Condom..... 10 Diaphragm 11 Foam/Jelly 12 Std. Days/Cycle beads 13 LAM..... 14 Rhythm method 30 Withdrawal 31 Other traditional methods 39 No response.....-99	408 = 1				
410	Whose choice was it to use that method?	Respondent 1 Respondent and partner 2 Partner 3 Someone else 4 No response.....-99	408 = 1				
INF_7	How many times do you have sex in a typical month?	Number of times Do not know.....-88 No response.....-99	407 ≤ 1 year				
INF_8	In the past 12 months, how many months did you not have any sex?	Number Do not know.....-88 No response.....-99	407 ≤ 1 year				
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:				
INF_9	Have you ever sought help because you were having trouble getting pregnant?	Yes.....1 No0 Do not know.....-88 No response.....-99	401 ≠ -77				

INF_10	Who have you sought help from? <i>Select all that apply.</i>	<table border="1"> <tr> <td data-bbox="855 192 1254 237"><u>Public sector</u></td> <td data-bbox="1254 192 1422 237">INF_9 = 1</td> </tr> <tr> <td data-bbox="855 237 1254 528"> Govt. Hospital/polyclinic 11 Govt. Health center 12 Govt. Health post 13 Family planning clinic 14 Mobile clinic 15 Fieldworker/outreach/peer educator 16 Community event..... 17 </td> <td data-bbox="1254 237 1422 528"></td> </tr> <tr> <td data-bbox="855 528 1254 573"><u>Private medical sector</u></td> <td data-bbox="1254 528 1422 573"></td> </tr> <tr> <td data-bbox="855 573 1254 842"> Private hospital/clinic..... 21 Private doctor..... 22 Pharmacy 23 Chemical/drug store 24 FP/PPAG clinic..... 25 Maternity home..... 26 Community event..... 27 </td> <td data-bbox="1254 573 1422 842"></td> </tr> <tr> <td data-bbox="855 842 1254 887"><u>Other source</u></td> <td data-bbox="1254 842 1422 887"></td> </tr> <tr> <td data-bbox="855 887 1254 1043"> Shop/market 31 Church..... 32 Community volunteer 33 Friend / relative 34 </td> <td data-bbox="1254 887 1422 1043"></td> </tr> <tr> <td data-bbox="855 1043 1254 1458"> Infertility clinic (public) 41 Infertility clinic (private) 42 Traditional healer / Herbalists 43 Religious leaders 44 Other..... 96 Don't know -88 No response..... -99 </td> <td data-bbox="1254 1043 1422 1458"></td> </tr> </table>	<u>Public sector</u>	INF_9 = 1	Govt. Hospital/polyclinic 11 Govt. Health center 12 Govt. Health post 13 Family planning clinic 14 Mobile clinic 15 Fieldworker/outreach/peer educator 16 Community event..... 17		<u>Private medical sector</u>		Private hospital/clinic..... 21 Private doctor..... 22 Pharmacy 23 Chemical/drug store 24 FP/PPAG clinic..... 25 Maternity home..... 26 Community event..... 27		<u>Other source</u>		Shop/market 31 Church..... 32 Community volunteer 33 Friend / relative 34		Infertility clinic (public) 41 Infertility clinic (private) 42 Traditional healer / Herbalists 43 Religious leaders 44 Other..... 96 Don't know -88 No response..... -99	
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INF_11	What type of care did you receive? <i>Select all that apply.</i>	<table border="1"> <tr> <td data-bbox="855 1458 1254 2018"> In vitro fertilization (IVF) or intrauterine insemination (IUI)..1 Treatment to increase ovulation...2 STI treatment.....3 Surgery.....4 Injections.....5 Pills.....6 Medicinal drink.....7 </td> <td data-bbox="1254 1458 1422 2018">INF_9 = 1</td> </tr> </table>	In vitro fertilization (IVF) or intrauterine insemination (IUI)..1 Treatment to increase ovulation...2 STI treatment.....3 Surgery.....4 Injections.....5 Pills.....6 Medicinal drink.....7	INF_9 = 1												
In vitro fertilization (IVF) or intrauterine insemination (IUI)..1 Treatment to increase ovulation...2 STI treatment.....3 Surgery.....4 Injections.....5 Pills.....6 Medicinal drink.....7	INF_9 = 1															

		Home remedy.....8 Herbs.....9 Ritual.....10 Prayer.....11 Other..... ..96 Don't know.....-88 No response.....-99	
INF_12	When did you most recently seek help?	Month Year Do not know-88	INF_9 = 1
		No response-99	

NO	QUESTIONS AND FILTERS	CODING CATEGORIES			Relevant If:
INF 13	Some people wonder if they can have children. In your case, what is the sentence that best describes your current situation?	You think you can have children..... 1 You have difficulties having children..... 2 You are sure you can't have children (anymore) yourself.. 3 You do not know if you can have children..... 4 You can have children but the doctor has recommended you do not.....5 Do not know-88 No response.....-99			008a = 1
INF 14	And regarding your partner:	You think your partner can have children.....1 Your partner has difficulties having children.....2 You are sure your partner can't have children (anymore).....3 You do not know if he can have children.....5 Do not know.....-88 No response.....-99			109 = 1 or 2 OR 114 = 1
WG E_1	At the last time you had sex, did any of the following happen?	YES	NO	NR	401 ≥ 0
	a. I did not want to have sex at that time	1	0	-99	
	b. I felt pressured by my husband / partner to have sex then	1	0	-99	
	c. I did not consent (was forced) to have sex then	1	0	-99	
	d. I felt at risk of physical violence if I declined to have sex at that time	1	0	-99	

Section 5 – Women and Girls Empowerment

Now I'm going to ask you a series of statements about family planning and contraception. Please indicate how much you think these statements could apply to you by indicating how strongly you agree or disagree with the statement. Some will seem similar but we would like you to consider each one as different.

We can pause at any time. If you do not feel comfortable answering any of the statements, let me know and I will move onto the next statement.

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
501	If I use family planning, my husband/partner may seek another sexual partner.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
502	If I use family planning, I may have trouble getting pregnant the next time I want to.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
503a	There could be conflict in my relationship/marriage if I use family planning.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	109 ≠ 1 or 2
503b	There will be conflict in my relationship/marriage if I use family planning.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	109 = 1 or 2
504	If I use family planning, my children may not be born normal.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
505	If I use family planning, my body may experience side effects that will disrupt my relations with my husband/partner.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
WG E _2	I can decide to switch from one family planning method to another if I want to.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
WG E _3	I feel confident telling my provider what is important for me when selecting a family planning method.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
WG E _4	I feel confident discussing family planning with my husband/partner.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1

Now I'm going to ask you a series of statements about pregnancy and childbearing. Please indicate how much you think these statements could apply to you by indicating how strongly you agree or disagree with the statement. Some will seem similar but we would like you to consider each one as different.

We can pause at any time. If you do not feel comfortable answering any of the statements, let me know and I will move onto the next statement.

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
WG E _5a	I want to complete my education before I have a child.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 0 AND 103 = 1
WG E _5b	I wanted to complete my education before I had a child.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	(201 = 1 OR baseline 201 = 1) AND (103 = 1)
WG E _6	If I rest between pregnancies, I can take better care of my family.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
WG E _7a	I can decide when I want to start having children.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 0
WG E _7b	I could decide when I wanted to start having children.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 1 OR baseline 201 = 1
WG E _8	I feel confident discussing with my husband/partner when to start having children.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 0
WG E _9	I can decide when to have another child.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 1 OR baseline 201 = 1
WG E _10a	I will be able to negotiate with my husband/partner when to stop having children.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 0

WG E _10 b	I can negotiate with my husband/partner when to stop having children.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	201 = 1 OR baseline 201 = 1
Now I'm going to ask you a series of statements about sexual activity. Please indicate how much you think these statements could apply to you by indicating how strongly you agree or disagree with the statement. If you are not now living with a husband/partner, you can refer to your situation with your last husband/partner. Some will seem similar but we would like you to consider each one as different. We can pause at any time. If you do not feel comfortable answering any of the statements, let me know and I will move onto the next statement.			
NO QUESTIONS AND FILTERS		CODING CATEGORIES	Relevant If:
WG E _11	If I refuse sex with my husband/partner, he may stop supporting me.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$
WG E _12	If I refuse sex with my husband/partner, he may force me to have sex.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$
WG E _13	If I refuse sex with my husband/partner, he may physically hurt me.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$
WG E _14	If I show my husband/partner that I want to have sex, he may consider me promiscuous.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$
WG E _15	I am confident I can tell my husband/partner when I want to have sex.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$
WG E _16	I am able to decide when to have sex.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	008a = 1
WG E _17	If I do not want to have sex, I can tell my husband/partner.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	$401 \geq 0$

WG E _18	If I do not want to have sex, I am capable of avoiding it with my husband/partner.	Strongly disagree (1) to strongly agree (5) Do not know.....-88 No response.....-99	401 ≥ 0
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Section 7 – Violence Against Women and Girls

CHECK FOR THE PRESENCE OF OTHERS. DO NOT CONTINUE UNTIL YOU CAN ENSURE COMPLETE PRIVACY.

We know that relationships can sometimes have conflict and difficulty. These next questions ask about conflicts you may have had in relationships. Remember, you can skip any question you do not want to answer.

NO	QUESTIONS AND FILTERS	CODING CATEGORIES			Relevant if:
VIO_ 1 a	Were you able to obtain complete privacy?	Yes 1 No.....0			Selected for Violence Section AND 008a = 1
VIO_ 1	In the last 12 months, has your husband/partner:	YES	NO	NR	VIOL_1a = 1 AND 109 = 1 or 2
	a. Insulted you, yelled at you, screamed or made humiliating remarks?	1	0	-99	
	b. Slapped, hit or physically hurt you?	1	0	-99	
	c. Threatened with a weapon or attempted to strangle or kill you?	1	0	-99	
	d. Pressured or insisted on having sex when you did not want to (without physical force)?	1	0	-99	
	e. Physically forced you to have sex when you did not want to?	1	0	-99	
VIO_ 2	<i>For each sub-question in VIO_1 answered yes, ask:</i> How many times has this happened in the last 12 months?	One time..... 1 1-2 times 2 3 to 10 times 3 More than 10 times 4 Every day or almost 5 No response -99			If 'yes' to any question in VIO_1
VIO_ 4	In the last 12 months, has a member of your household that is <i>not</i> your spouse or partner:	YES	NO	NR	VIOL_1a = 1
	a. Insulted you, yelled at you, screamed or made humiliating remarks?	1	0	-99	
	b. Slapped, hit or physically hurt you?	1	0	-99	
	c. Threatened with a weapon or attempted to strangle or kill you?	1	0	-99	

	d. Pressured or insisted on having sex when you did not want to (without physical force)?	1	0	-99	
	e. Physically forced you to have sex when you did not want to?	1	0	-99	
NO	QUESTIONS AND FILTERS	CODING CATEGORIES			Relevant if:
VI O _5	<i>For each sub-question in VIO_4 answered yes, ask:</i> How many times has this happened in the last 12 months?	One time 1 1-2 times 2 3 to 10 times 3 More than 10 times 4 Every day or almost 5 No response -99			If 'yes' to any question in VIO_4
VI O _7	Thinking about the experiences of relationship conflict we have just discussed, have you tried to seek help in the last 12 months?	Yes 1 No 0 No response -99			VIOL_1a = 1
VI O _8	From whom have you sought help? Probe: Anyone else? <i>Record all mentioned.</i>	Own family 1/0 Husband's/partner's family 1/0 Current/former husband/partner 1/0 Current/former boyfriend 1/0 Friend 1/0 Neighbor 1/0 Religious leader 1/0 Doctor/medical personnel 1/0 Police 1/0 Lawyer 1/0 Social service organization 1/0 Violence support program or hotline 1/0 No response -99			VIOL_7 = 1
Thank you for sharing your personal experiences with me. I know it may have been difficult for you to talk about your experiences with me. If you would like to talk further about these experiences, I can refer you to a place that can provide you with help.					
VI O _9	Did you have to interrupt the interview during this section because some adult was trying to listen, came into the room, or interfered in any other way?	YES, ONCE	YES, MORE THAN ONCE	NO	VIOL_1a = 1
	a. Husband / partner?	1	2	3	
	b. Other male adult?	1	2	3	
	c. Female adult?	1	2	3	

Follow-up Consent			
NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
801	Thank you for the time you have kindly granted us. Would you be willing to participate in another survey one year from now?	Yes..... 1 No..... 0 No response.....-99	008a = 1
802	Do you have access to a phone?	Yes..... 1 No..... 0 No response.....-99	801 = 1
803a	Can I have your primary phone number in case we would like to follow up with you in the future?	Yes..... 1 No..... 0	802 = 1
803b	What is your primary phone number? <i>Enter an #-digit number without the country code. Do not include spaces or dashes.</i> <i>Enter 0 for no response.</i> [UPDATE TO MATCH COUNTRY PHONE SYSTEM]	Primary phone number: No response -99	803a = 1
803c	Can you repeat the number again? <i>Enter an #-digit number without the country code. Do not include spaces or dashes.</i> <i>Enter 0 for no response.</i> [UPDATE TO MATCH COUNTRY PHONE SYSTEM] <i>Number entered must match previously entered number.</i>	Primary phone number: No response -99	803b ≠ 0
803d	Is this your personal phone number? <i>A personal phone is not shared with other people.</i>	Yes..... 1 No..... 0 No response.....-99	803a = 1
804a	Can I have your secondary phone number in case we would like to follow up with you in the future?	Yes..... 1 No..... 0	803a = 1
804b	What is your secondary phone number? <i>Enter an #-digit number without the country code. Do not include spaces or dashes.</i> <i>Enter 0 for no response. [UPDATE TO MATCH COUNTRY PHONE SYSTEM]</i>	Secondary phone number: No response -99	804a = 1

804c	Can you repeat the number again? <i>Enter an #-digit number without the country code. Do not include spaces or dashes.</i> <i>Enter 0 for no response.</i> [UPDATE TO MATCH COUNTRY PHONE SYSTEM] <i>Number entered must match previously entered number.</i>	Secondary phone number: No response -99	804b ≠ 0
804d	Is this your personal phone number? <i>A personal phone is not shared with other people.</i>	Yes..... 1 No..... 0 No response.....-99	804a = 1
805	Is [NAME] the name you go by in your household?	Yes..... 1 No..... 0 No response.....-99	801 = 1
806	What is the name you go by in your household	Name: 	805 = 0
807	Is [NAME] the name you go by in your community?	Yes..... 1 No..... 0 No response.....-99	801 = 1
808	What is the name you go by in your community?	Name: 	807 = 0
END OF SURVEY <i>Thank the respondent for her time.</i> <i>The respondent is finished, but there are still more questions for you to complete outside the home.</i>			

NO	QUESTIONS AND FILTERS	CODING CATEGORIES	Relevant If:
095	Location <i>Take a GPS point near the entrance to the household. Record location when the accuracy is smaller than 6m. GPS coordinates can only be collected when outside.</i>	LOCATION	Always
096	How many times have you visited this household to interview this female respondent?	1 st time..... 1 2 nd time..... 2 3 rd time..... 3	Always
097	In what language was this interview conducted?	English 1 French 2 Language 3 3 Language 4 4 Language 5 5 Language 6 6 Other 96	008a = 1
098	Questionnaire result <i>Record the result of the Female Questionnaire</i>	Completed 1 Not at home..... 2 Postponed..... 3 Refused 4 Partly completed 5 Incapacitated 6 Deceased 7 Moved out of the study area..... 8	Always

CONTRACEPTIVE

CALENDAR: please enter answers from visual aid paper.

**COL. 1 Codes – Births / Pregnancies**

Birth.....	B
Pregnancy	P
Termination	T

COL. 1 Codes – Family Planning Use

No method used.....	0
Female Sterilization.....	1
Male Sterilization	2
Implant	3
IUD.....	4
Injectables.....	5
Pill	7
Emergency Contraception	8
Male Condom.....	9
Female Condom	10
Diaphragm.....	11
Foam/Jelly	12
Std. Days/Cycle beads.....	13
LAM.....	14
Rhythm method.....	30
Withdrawal	31
Other traditional methods.....	39

Infrequent sex / husband away	1
Became pregnant while using	2
Wanted to become pregnant.....	3
Husband / partner disapproved....	4
Wanted more effective method ...	5
Side effects / health concerns	6
Lack of access / too far.....	7
Costs too much.....	8
Inconvenient to use	9
Up to god / fatalistic.....	10
Difficult to get pregnant /	
menopausal.....	11
Marital dissolution / separation .	12
Other	39

COL. 1**COL. 2**

2022	12	DEC	01			2022
	11	NOV	02			
	10	OCT	03			
	09	SEP	04			
	08	AUG	05			
	07	JUL	06			
	06	JUN	07			
	05	MAY	08			
	04	APR	09			
	03	MAR	10			
	02	FEB	11			
	01	JAN	12			
2021	12	DEC	13			2021
	11	NOV	14			
	10	OCT	15			
	09	SEP	16			
	08	AUG	17			
	07	JUL	18			
	06	JUN	19			
	05	MAY	20			
	04	APR	21			
	03	MAR	22			
	02	FEB	23			
	01	JAN	24			
	12	DEC	25			
	11	NOV	26			
	10	OCT	27			
	09	SEP	28			

Annex II: IREC



MOI TEACHING AND REFERRAL HOSPITAL
P.O. BOX 3
ELDORET
Tel: 334711/2/3

MTRH/MU-INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE (IREC)

Reference: IREC/610/2023
Approval Number: 0004559



MOI UNIVERSITY
COLLEGE OF HEALTH SCIENCES
P.O. BOX 4606
ELDORET
Tel: 334711/2/3
28th September, 2023

Ednah Chepngeno Salat,
Moi University,
School of Public Health,
P.O. Box 4606-30100,
ELDORET-KENYA.

Dear Ms. Salat,

FACTORS ASSOCIATED WITH MODERN CONTRACEPTIVE USE AMONG FEMALE ADOLESCENTS AGED 15-19 YEARS IN KENYA

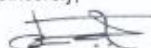
This is to inform you that **MTRH/MU-IREC** has reviewed and approved the above referenced research proposal. Your application approval number is **FAN: 0004559**. The approval period is **28th September, 2023- 27th September, 2024**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including (informed consents, study instruments, Material Transfer Agreements (MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by **MTRH/MU-IREC**.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **MTRH/MU-IREC** within 72 hours of notification.
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to **MTRH/MU-IREC** within 72 hours.
- v. Clearance for export of biological specimens must be obtained from **MOH at the recommendation of NACOSTI** for each batch of shipment.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to **MTRH/ MU-IREC**.

Prior to commencing your study; you will be required to obtain a research license from the National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and other relevant clearances from study sites including a written approval from the CEO-MTRH which is mandatory for studies to be undertaken within the jurisdiction of Moi Teaching & Referral Hospital (MTRH) and its satellites sites.

Sincerely,



PROF. E. WERE
CHAIRMAN
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE



cc	CEO	-	MTRH	Dean	-	SOP	Dean	-	SOM
	Principal	-	CHS	Dean	-	SON	Dean	-	SOD

Annex III: NACOSTI Permit

			
RefNo: 892530		Date of Issue: 03/November/2023	
RESEARCH LICENSE			
			
This is to Certify that Ms. Ednah Chepungu Salati of Moi University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Bungoma, Kakamega, Kericho, Kiambu, Kilifi, Kitui, Nairobi, Nandi, Nyamira, Siaya,			
Westpokit on the topic: Factors Associated with Modern Contraceptives use Among Female Adolescents 15-19 years in Kenya for the period ending : 03/November/2024			
License No: NACOSTI/P/23/31072			
Applicant Identification Number			
892530			
Director General			
NATIONAL COMMISSION FOR		NATIONAL COMMISSION FOR	
SCIENCE, TECHNOLOGY & INNOVATION		SCIENCE, TECHNOLOGY & INNOVATION	
Verification QR Code			
NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.			
See overleaf for conditions			

Annex IV: Plagiarism Awareness Certificate

SR1118



ISO 9001:2019 Certified Institution

THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

EDNAH CHEPNGENO SALAT

FELTP/5866/22

In recognition for passing the University's plagiarism

Awareness test for Thesis entitled: **PREVALENCE AND FACTORS ASSOCIATED WITH MODERN CONTRACEPTIVE USE AMONG FEMALE ADOLESCENTS AGED 15-19 YEARS IN KENYA** with similarity index of 5% and striving to maintain academic integrity.

Word count:20313

Awarded by

Prof. Anne Syomwene Kisilu

CERM-ESA Project Leader Date: 15/12/20245