AN ASSESSMENT OF UPTAKE OF REPRODUCTIVE HEALTH SERVICES AMONG UNMARRIED ADOLESCENTS IN KANGEMI INFORMAL SETTLEMENTS

MERCY AUMA OTIENO

A PROJECT PAPER SUBMITTED TO THE DEPARTMENT OF ANTHROPOLOGY GENDER AND AFRICAN STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN GENDER AND DEVELOPMENT STUDIES OF THE UNIVERSITY OF NAIROBI.

2023

DECLARATION

This research paper is my original work and has never been presented for examination in any other University.

Signature  Date 13th July 2023

Mercy Auma Otieno

This research project has been submitted for examination with my approval as the University supervisor.

Signature  Date August 7th, 2023

Dr. Dalmas Omia

DEDICATION

To my dearest nieces, Hawi, Hera and nephew, Hope.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGMENT

I would like to express my sincere gratitude and appreciation to all those who have contributed to the successful completion of this project. Without their support, guidance, and assistance, this endeavour would not have been possible.

First and foremost, I would like to thank my supervisor, Dr. Dalmas Omia, for his invaluable guidance, patience, and expertise throughout this project. His diverse perspective and efforts have been instrumental in shaping the direction of this work.

I am grateful to Mr Charles Masika Wasike and Dr. Dorothee Hasskamp whose support, encouragement, and collaboration have been invaluable, and I extend my deepest thanks to you.

I am indebted to the participants who generously dedicated their time and contributed their insights to this study. Their willingness to share their experiences and perspectives has been crucial in shaping the findings and conclusions of this research.

Furthermore, I would like to acknowledge the support and understanding of my family (parents and siblings). Their unwavering encouragement, and belief in my abilities have been a constant source of motivation throughout this journey.

Lastly, I would like to express my heartfelt appreciation to all the authors, researchers, and individuals whose work and contributions have been cited in this project. Their formative ideas and research have laid the foundation for this study.

ABSTRACT

Adolescents constitute a significant number of urban populations, a majority of them are in the various informal settlements in Nairobi. Access and uptake of reproductive health services by adolescents are compounded by a myriad of determinants which act as enablers and/or hindrances for uptake. This study therefore assessed the uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements. The study sought to identify the socio-economic characteristics that inform uptake of reproductive health services and to highlight institutional arrangements in healthcare facilities that determine uptake of reproductive health services among unmarried adolescents. The study was guided by two theories; sociological theory of adolescence and contemporary theory of adolescence, data was collected through semi structured interviews, key informants' interviews and focus group discussions. Data was analysed thematically and findings contain verbatim quotes to elaborate on the voices of the study participants. It was found that unmarried adolescents' uptake of reproductive health services, is dependent on interplay of factors both socio-economic and institutional. The factors vary from individual, interpersonal community and societal level. Level of education, peer and parental influence, availability and proximity of services as well as perceived susceptibility and severity to reproductive health concerns, fear of bringing shame to the family and self and having a child were contributing factors to uptake of reproductive health services. The study recommends a shift in perspective by parents and service providers to look at uptake of reproductive health services by unmarried adolescents from current societal circumstances and not from their (parents and service providers) social circumstances. Parents and service providers should respect and be cognisant of the right of adolescents to accurate and comprehensive reproductive health information, education and services.

ABBREVIATIONS AND ACRONYMS

AGYWS – Adolescent Girls and Young Women

ASRH - Adolescents Sexual and Reproductive Health

APRHC- Africa Population and Health Research Centre

CHV- Community Health Volunteer

CSE-Comprehensive Sexuality Education

FGD – Focus Group Discussion

HIV/AIDS -Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

ICPD- International Conference on Population and Development

KII – Key Informant Interview

KNBS – Kenya National Bureau of Statistics

KNCHR-Kenya National Commission on Human Rights

MoH -Ministry of Health

NGO- Non-Governmental Organisation

PEP - Post-exposure Prophylaxis

PrEP - Pre-exposure Prophylaxis

RHS - Reproductive Health Services

SSA- Sub Sahara Africa

SRHR - Sexual Reproductive Health Rights

STIs -Sexually Transmitted Infections

UNFPA- United Nations Fund for Population Activities

CHAPTER ONE: BACKGROUND TO THE STUDY

1.1 Introduction

Adolescence is a period between ages 10–19 years often categorized into early (10–14 years) and late (15–19 years) (Pandey et al., 2019). This period is marked by emerging sexual desires, relationships and behaviour change, these are a normal part of development (Woog et al., 2015, p. 1), thus, adolescents need to be supported to make healthy decisions (Woog et al., 2015).

Biological, physical and socio-economic factors influence the predisposition of adolescents to unfavourable reproductive health consequences. The consequences are not limited to, unintended pregnancy, unsafe abortion, HIV and other STIs. In the event that they give birth, adolescents are also at an exacerbated risk of poor health outcomes for themselves and their babies, including at the extreme, mortality (Woog et al., 2015). Reproductive health is a state of physical, emotional, mental and social well-being in relation to all aspects of reproduction, not merely the absence of disease, dysfunction or infirmity (Ghebreyesus & Kanem, 2018).

Access to basic needed health services among adolescents is critical in helping achieve reproductive health for them and necessary for protecting the health of future generations. Furthermore, adolescents have a widely recognized right to accurate and comprehensive reproductive health information, education and services (Woog et al., 2015).

Uptake of reproductive health services is defined as the propensity to acquire and utilise, in a rightful and convenient way the available services (Shabani et al., 2018). The availability of the services is aimed at providing healthy reproductive health to the population. Uptake of reproductive health care service is tied to availability, standard, cost, socioeconomic status and individual traits of the adolescent (Shabani et al., 2018), as discussed below from various part of the world.

In the United States of America for instance, women who are socially and economically disadvantaged are susceptible to higher unmet need for reproductive health services, however, women of advantaged economic and social status have a different experience. As a result, the former are disproportionately impacted by negative reproductive health (Hall et al., 2012). This is not different in developing countries in South America, Asia and Africa.

Developing countries lead in reproductive health related issues and are a leading cause of poor health and mortality for women and girls of reproductive age. The situation is even worse among impoverished women who suffer from unintended pregnancies, unsafe abortion, maternal mortality and morbidity, STIs, gender-based violence and other gendered health risks, (UNFPA, 2014). In Latin America for instance, adolescents are confronted by critical reproductive health due to hindrances to uptake of services. The hindrances can be categorised into social and/or economic (Pozo et al., 2015), they are not limited to; cost, decision making capacity, knowledge, lack of adolescent specific services among others, (Sychareun et al., 2018). The situation is not different in Asian countries like Nepal, where there is unwillingness of healthcare providers to attend to unmarried adolescents; institutional health care barriers, socio-cultural norms and attitudes related to unmarried adolescent's sexual reproductive health access (Pandey et al., 2019).

In sub-Saharan Africa (SSA), there exists an interplay of various socio-economic factors that hinder adolescents from accessing sexual reproductive health services; lack of health care providers, lack of adolescent-friendly services, preference of same sex service providers and distance of the health facilities (Bwalya & Kusanthan, 2018). Furthermore, reproductive health services in most SSA settings have been designed for older married males and females (Bwalya &

Kusanthan, 2018). In Nigeria for instance, low uptake of reproductive health services among adolescents in was attributed to social and cultural reasons like embarrassment, shyness, lack of adolescent friendly services and fear of stigmatization were among the main concerns' adolescents expressed as a reason for not using public health services (Cortez et al., 2015). While in Ethiopia, young people who had basic level of education had lower chances of utilizing reproductive health services (Ayehu et al., 2016). Situation is not any different in Kenya.

Despite Kenya being among the first SSA countries to sign the International Conference on Population and Development (ICPD) 1994 agreement (Guttmacher, 2019) and committing to provision of youth friendly reproductive health services during the 2012 Family Planning Summit in London (*London Summit on Family Planning: Summaries of Commitments*, 2012.) adolescents in the country still face numerous challenges when it comes to uptake of reproductive health services. The National Adolescent Sexual and Reproductive Health policy was updated in 2015 and aimed to improve the status of adolescents on sexual and reproductive health (Ministry of Health Kenya, 2015) the situation has not changed much as many young people have poor contraceptive knowledge, lack of access to reproductive health services, particularly youth friendly services (Mumah & Kabiru, 2014).

The lack of access to reproductive health services by adolescents is attributed to limited access to free or affordable adolescent friendly reproductive health service centres in the country (Avuvika et al., 2017). A study among young people who had a source of income and had employed parents established that this cohort had a higher likelihood of utilising reproductive health services than their counterparts: who had no source of income and unemployed parents (Mutua et al., 2020).
A study conducted in various parts of Kenya; Nairobi, Meru central, Kirinyaga and Laikipia that was looking into adolescents' perception on reproductive health services concluded that barriers

to uptake of RH services were; unfriendly health service provider, long queues, bureaucracy, male adolescent felt that the centre were women and children friendly hence no space for them (Godia et al., 2014).

Kenya has a youthful population; urban informal settlements share a meaningful proportion of this population. Younger population means a high need for reproductive health access and services due to their reproductive and productive importance to any country (Mumah & Kabiru, 2014). Adolescents living in urban settings, especially those in low- income settings in metropolitan areas, are more likely to be exposed to greater sexual risks of HIV than their rural counterparts. At the same time, urban settings may offer better access to contraceptives including condoms, safe abortion and different social norms regarding marriage and fertility (Melesse et al., 2020).

Nairobi is home to one third of Kenya's urban population, 60% of its residents live in informal urban settlements and 73 % of this population lives under the national poverty line of USD 42 a month (UN Habitat, 2014) as quoted in (Malmi, 2016). Informal urban settlements are characterised by high population densities, extensive poverty and unemployment, high crime rates, insecure living conditions and low-quality housing, poor and lack of water, sanitation and hygiene, as well as poor infrastructure and shut out from public and basic social services (Mberu et al., 2014). The urban informal settlements in Nairobi are known for worsening health and social indicators and specifically Sexual and Reproductive Health and Rights (SRHR) related outcomes (Mberu et al., 2014; APHRC, 2014). Young people are the worst affected: they remain disproportionately vulnerable to SRHR related risks (Mberu et al., 2014; APHRC, 2014). This is not different from the situation in Kangemi informal settlements.

The main SRHR risks posed by the informal urban settlements of Nairobi like Kangemi are high incidence of unwanted pregnancies, STIs and HIV/AIDS, poor maternal and child health and

unsafe abortions, (Mberu et al. 2014; Mumah et al., 2014). Furthermore, child and infant mortality including disease prevalence and morbidity, as well as the incidence of sexual violence and risky sexual practices are higher relative to other areas in Nairobi as well as sub groups of population in Kenya including rural residents (Mberu et al., 2014).

Privately owned informal health facilities dominate the healthcare services in Nairobi informal settlements. These facilities are often below the bare minimum requirements for a health facility; some of the facilities are unlicensed, unsupervised and characterized by low quality, insufficient equipment, and lack of supplies and shortages of trained personnel (Fotso & Mukiira, 2011). This therefore means that they operate below the bare minimum.

There are some private health care facilities that meet the bare minimums, however, they are often accessed based on pay-before- service, which remains problematic given that the informal settlement population lacks financial stability which results to a decrease in health seeking behaviour (Fotso & Mukiira, 2011). Furthermore, adolescents' access to health services in Kenya remains low, specifically in terms of access to quality and friendly health care and Sexual and Reproductive Health services, (KNCHR 2012; APRHC, 2014).

1.2 Statement of the Problem

Adolescents constitute a significant number of urban populations, a majority of them are in the various informal settlements in Nairobi (Mmari & Astone, 2014). These adolescents are confronted with categorical set of hindrances as they transition into adulthood in a setting characterised by population densities, extensive poverty and unemployment, high crime rates, insecure living conditions and low-quality housing, poor and lack of water, sanitation and hygiene,

as well as poor infrastructure and shut out from public and basic social services (Mberu et al, 2014).

Several studies such as (Beguy et al., 2013; Mberu et al., 2013) have been conducted to elucidate the outcomes of adolescents' sexual and reproductive health in Kenya. However, available information on adolescents and reproductive health services focused more on slums like Viwandani, Korogocho, and Kibera, very little literature on the same exists on Kangemi informal settlement, yet every informal settlement presents its own context specific dynamics in relation to reproductive health. Furthermore, the majority of the studies are qualitative, hence they cannot be generalized to adolescents in other informal settlements. Additionally, the National Adolescent Sexual Reproductive Health Policy has categorised adolescents from urban informal settlements as high-risk population (Ministry of Health Kenya, 2015) hence the need for more studies that are geared toward understanding the experience of adolescents in urban informal settlement.

This study therefore sought to answer the following;

i. How do socio-economic characteristics inform uptake of reproductive health services (RHS) among unmarried adolescents in Kangemi informal settlements?
ii. In what ways do institutional arrangements in healthcare facilities influence uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements?

1.3 Research Objectives

1.3.1 Overall Objective

To assess uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements.

1.3.2 Specific Objectives

i. To identify the socio-economic characteristics that inform uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements.

ii. To highlight institutional arrangements in healthcare facilities that determine uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements.

1.4 Assumptions to the Study

i. The study assumed there are socio-economic characteristics that influence uptake of RHS among unmarried adolescents in Kangemi informal settlements.

ii. The study further assumed there are institutional arrangements in healthcare facilities which determine uptake of RHS among unmarried adolescents in Kangemi informal settlements.

1.5 Justification of the Study

The study offers insights into socio-economic characteristics that inform uptake of reproductive health services as well as ways in which institutional arrangements in healthcare facilities influence the uptake of reproductive health services among unmarried adolescents. The findings shed light on the key factors that influence of uptake of reproductive health services and suggest possible measures to address these factors in designing of intervention programs in the study area. The study therefore could be beneficial to future projects that envision to change the existing status quo.

Consequently, an in-depth understanding of the factors that influence uptake of reproductive health service by unmarried adolescents with respect to informal settlements adds to the existing knowledge and provides a foundation for further investigation. In addition, the study centred on

the unmarried adolescents, meaning the findings are adolescent informed and gives clear perspectives of their interactions with reproductive health services within their ecosystem. Researchers studying adolescent reproductive health in informal settlements can reference this study's findings.

The study findings are also of significant value to the National Adolescents Sexual and Reproductive Health Policy (2015) specifically the following specific objectives 5.1.3.1: Promote adolescents sexual reproductive health and rights. 5.1.3.3 Contribute to reduction of sexually transmitted infections burden, including HIV as well as improvement of appropriate response for infected adolescents. 5.1.3.4: Reduce early and unintended pregnancies and 5.1.3.8: Address the special sexual reproductive health and rights related needs of marginalized and vulnerable adolescents. By understanding the socio-economic and institutional factors that influence uptake of RHS services, relevant authorities can make needed informed adjustments to promote the specific objectives.

1.6 Scope and Limitations of the Study

This study focused on RHS uptake among unmarried adolescents (15-19) in Kangemi informal settlements, specifically in 5 villages namely; Kaptagat, Dam, Kibagare, Village inn and Bottom line in line with the specific objectives. This study is among the few studies that were conducted in Kangemi informal settlements among unmarried adolescents to assess the uptake of reproductive health services.

The study targeted unmarried female and male adolescents who were between 15 and 19 years and therefore there were consent issues surrounding the topic for participants below the age of 18. The

researcher got consent from their parents and guardians for the adolescents under 18 years to participate in the study.

The study relied on qualitative methods of data collection, and it entailed the use of semi structured interviews (SSI), key informant interviews (KII), and focus group discussions (FGDs). Using more than one data collection method was instrumental in expelling biases and cross-referencing data. At the same time, this study was guided by sociological theory of adolescence and contemporary theory of adolescence. The theories were sufficient in underpinning socio-economic and institutional factors that unmarried adolescents navigate while they interact with reproductive health services.

The study participants were drawn from a small sample size that is non-representative and participants presented their self-selected views and opinions hence findings of this study cannot be inferred to unmarried adolescents in different informal settlements. However, to ensure the validity of this study, participants were drawn from different parts of Kangemi. This helped in obtaining more comprehensive understanding of the unmarried adolescents in Kangemi informal settlements

1.7 Definition of key terms

Informal settlements- residences where inhabitants are socio-economically disadvantaged. They experience high level of insecurity, limited access to constant clean water supply, poor infrastructure and other basic social amenities

Adolescents in this study refers to boys and girls between ages 15 and 19 years.

Reproductive health services in this study constitute contraceptives and HIV&STIs services.

Uptake in this study refers to the ability of adolescents to obtain and make use of reproductive health services.

Socio-economic determinants are sociological and economic factors, such as income, education, employment, community safety, and social supports can significantly affect how well and how long we live regarding reproductive health services uptake. These factors affect our ability to make healthy choices, afford medical care and housing, manage stress, and more.

Institutional determinants are operational characteristics that define healthcare facilities' way of work or organizational culture. They have an influence on clients' uptake of reproductive health services.

Uptake in this study is operationalized to mean the ability of adolescents to acquire reproductive health services as well as information on how to use such services.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature relevant to the research question and objectives. The literature is discussed under the following headings; reproductive health needs of adolescents, social and economic and institutional factors that affect uptake of reproductive health. At the end of the chapter, sociological theory of adolescence and contemporary theory of adolescence is discussed as well as their relevance to the study.

2.2 Reproductive Health Needs of Adolescents.

According to UNFPA, (2014) young people (15-24) face a lot of hindrances with regard to accessing reproductive health knowledge information and services, this therefore predisposes them to extreme vulnerabilities. They further state that, the target group is disproportionately affected by HIV, millions of girls face unintended pregnancies annually making them susceptible to childbirth complications and or unsafe abortion (*Sexual & Reproductive Health | UNFPA - United Nations Population Fund*, 2014). Abortions, STIs and unintended pregnancies are sometimes the outcomes of lack of knowledge and utilisation of reproductive health services. Women of low socioeconomic status suffer disproportionately from unintended pregnancies, sexually transmitted infections (STIs) , and other related problems. (*Sexual & Reproductive Health | UNFPA - United Nations Population Fund*, 2014). The UNFPA findings are backed by Bwalya & Kusanthan (2018), who emphasized, low utilisation of reproductive health services among adolescents is a worldwide problem, however, it is acute in developing countries. Worldwide, adolescents continue to face barriers in accessing the services. This group of people have infrequent access to reproductive health services than expected and tend to seek services after sexual exposure, (Bwalya & Kusanthan, 2018).

Many societies consider premarital sexual activities as unacceptable and such issues are faced with resistance hence unmarried adolescents cannot easily access contraceptive information and services. As a result, adolescents are faced with knowledge gaps and misconceptions about contraceptives. For this reason, there is a need to provide unmarried adolescents with correct information regarding contraceptives (Chandra-Mouli et al., 2014a). Below are instances from various regions that depict the reproductive health needs of adolescents.

Utilisation of STI treatment services among unmarried female adolescents in Bangladesh was low, this is according to a study that was investigating reproductive health knowledge among unmarried female adolescents in the country, (Kabir et al., 2015). The study further cited that the majority of the participants sought self-treatment in the face of STI symptoms. (Kabir et al., 2015). Further, unmarried adolescents may be drawn to locations that provide high levels of confidentiality compared to places that offer quality service, (Kabir et al., 2015).

In Sub Saharan Africa (SSA), there are numerous reproductive health challenges; low levels of unmet need of contraceptives and prevalence rates, high prevalence of HIV infection, mistimed and unwanted pregnancies with young women being the most hit (Marston et al., 2013) (Kriel et al., 2019) and the use of condoms is low, among young people of the ages 12-22 using condom at their first sexual experience (Mumah et al., 2014; Beguy et al., 2013). This demonstrates that there is a correlation between social demographics and uptake of reproductive health services. The findings are emphasized by a study in Ghana that was looking into HIV knowledge and service utilisation among university students. The study established, females were more knowledgeable on matters of HIV compared to male students, however, in future males had a higher likelihood of getting tested compared to females. Further findings suggested that participants who were single had higher probability of being tested compared to those who were married or in a relationship. Knowing where to get HIV tests and being Christian heightened the chances of getting tested. Most of the students received HIV/AIDS information from print and electronic media, (Oppong Asante, 2013).

On matters of STIs, study among secondary school students in Nigeria on the prevalence of STIs and health seeking behaviour confirmed that only twenty six percent of those who have ever had an STI sought treatment from a health facility, thirty seven percent did not seek any treatment,

close to sixteen percent visited patent medicine stores, ten percent used herbs while the rest used self-medication or prayed over the symptoms (Adegun & Amu, 2017). In general, the prevalence of STI among the study participant was high yet their utilisation of reproductive health services was poor (Adegun & Amu, 2017).

Situation is not different in Ethiopia, Abajobir & Seme, (2014) found out that knowledge of reproductive health and utilisation of services among rural adolescents was low. In the study, only a fifth of the adolescents had ever utilised the services; contraceptive, STI treatment and information, education and communication. Additionally, utilisation was highly linked to age and knowledge of reproductive health. Low utilisation of reproductive health services was associated with parent disapproval, pressure from partners and lack of basic information (Abajobir & Seme, 2014). Utilisation of family planning and Voluntary Counselling and Testing (VCT) was average among adolescents. Males had a higher likelihood of up to five times higher of utilising VCT services compared to females. Those who thought of themselves as having high risk of exposure to HIV were eight times likely to use VCT services compared to the rest. Only thirty nine percent of female adolescents had ever used family planning, forty six percent of adolescents have ever used VCT services. Adolescents reported that the lack of utilisation was due to unavailability of the services, unfriendly service hours, lack of confidentiality and harmful traditional practices (Ansha et al., 2017).

In Uganda utilisation of HIV testing services had increased over the years, this is according to a study conducted by Crossland et al., (2015). According to the findings of the study, the number of youths who had ever been tested increased from below forty percent in 2003 to eighty percent in 2012 this for both sexes. When the data is sex segregated for males the number increased from eight percent to forty-eight, while for females, ten percent to sixty four percent, (Crossland et al.,

2015). This means that females in Uganda utilise HIV testing service more, compared to male and with consistent sensitization, utilization of RHS can increase.

In Kenya, adolescents in informal settlements have low uptake of reproductive health services, hence high rate of unintended pregnancies among the adolescents. (Mumah et al., 2014; Beguy et al., 2013). The adverse consequences of unintended pregnancies are felt more by women who are under 20, they are more likely to die due to pregnancy related causes during pregnancy and the period surrounding it, compared to women above the age of 20 (Mumah et al., 2014; Beguy et al., 2013). Ochako et al., (2015) concludes that the majority of the participants had used various forms of contraceptives, however, those who had used condoms did not look at it as a method of contraception. In a different study, only a small number of unmarried young women reported use of long-acting reversible contraceptives (Okigbo & Speizer, 2015). Some of the participants had never used contraceptives for various reasons. Fear and concerns about family planning were a major barrier to utilization. These fears were as a result of myths and misconceptions. In addition to the myths and misconceptions, the majority also mentioned real side effects as a hindrance to utilisation (Ochako et al., 2015).

Findings by Mumah & Kabiru, (2014) suggest that the high levels of unintended pregnancy among adolescents in Kenya's urban informal settlements are connected to myths and misconceptions about contraception. Adolescents depend on information from peers rather than health care practitioners. This therefore acts as a significant obstacle to utilization. (Jayaweera et al., 2018), low utilization of contraceptives is as a result of frequent stock out in health facilities, fear of stigma and discrimination from health care providers on unmarried adolescents.

Apart from contraceptive use, adolescents also face the risk of sexually transmitted infections including HIV. Adolescent girls and young women in urban informal settlements in Kenya have low utilisation of condom and awareness of HIV status (Ziraba et al., 2018). Fifty one percent of adolescent girls and young women had ever utilised HIV testing service with the proportion going up with age. Those who reported to be sexually active, twenty six percent reported that they had used a condom in their last sexual encounter (Ziraba et al., 2018). On utilisation of preventative measures on STIs, study that was looking into reproductive health among college students in Kenya found out that most of the students forty six percent used condoms as the major prevention method against STIs. Forty one percent were abstaining from sexual practices while thirty two percent were being faithful to one sexual partner as a preventive measure against STIs and HIV (Mbugua & Karonjo, 2018).

Literature that has been reviewed seem to suggest uptake of reproductive health services is influenced by socio-economic and institutional factors. These factors can be categorised into; individual, interpersonal, communal and institutional. Below section looks into these factors in details.

2.3 Social Factors that Affect Uptake of Reproductive Health Services

The Millennium Development Goals (MDGs) and Sustainable Development Goals emphasize on committing to achieving universal health coverage. The major area that these goals focus on has been access and improvement of family planning and maternal health by addressing the unmet demand for sexual and reproductive health services. The 1994 International Conference on Population and Development identified access to sexual and reproductive health information and services as a basic human right. Sexual and reproductive health is fundamental to women's empowerment and promotes full integration of women into economic activities that are productive.

However, it is important to note that there are social factors that facilitate achievement of universal coverage of sexual and reproductive health (Santhya & Jejeebhoy, 2015). Adolescents interact with these factors in their quest to accessing the services (Chandra-Mouli, Svanemyr, & Amin, 2015).

2.3.1 Effects of Culture in accessing Reproductive Health Services

Culture plays a significant role in influencing RH. Individuals undergo a process of sexual socialization through which they learn the ideologies of femininity and masculinity such as sexual desires, feelings, roles, expressions, and practices of their culture (Parker, 2009). (Hofstede et al. ,2010) note that sexuality is partially predetermined by a culture which is socially learned at the family level, one's neighbourhood, and the community. They further note that individuals have patterns of thinking, feeling, and actions acquired in early childhood. These patterns influence sexual conduct that is assumed to essentially be intentional, deliberate, and often shaped within the specific contexts of socially and culturally structured interactions. Arguably, sexual behavior occurs within cultural settings following the cultural rules that organize it (Parker, 2009). Culture shapes knowledge, beliefs, and practices of sexuality which influence the SRH of adolescent girls

Looking through the cultural ideology of sexuality it is important because it shapes the way adolescent girls seek SRH services including contraception, maternal and child care services, prevention and diagnosis of STI's and the use of information services. This is very important because it determines the SRH outcomes among the vulnerable groups of adolescent girls. Sexual behaviours such as unprotected sex and multiple sexual partners, often displayed through polygyny, are largely consistent with culture as a result of exposure to perceptions that define sexuality in a society. However, culture provides rules of sexual conduct between sexes such as where, when, and with whom to have sex; these rules equally act as a guide to choosing a potential

partner such as knowledge of one's background (Kioli, Were, & Onkware, 2012). In African tradition, sex issues aren't discussed even though it's talked about by old people (Okechi, 2018). Such cultures pose a challenge for adolescents in accessing quality information required to improve their SRH, which has often resulted in SRH problems such as STIs, adolescent pregnancies, unsafe abortion, complications during pregnancy and childbirth, and maternal deaths (Van Der, Anke, & Nduba, 2012).

In study conducted by Dune, Perz, Mengesha and Ayika (2017) exploring the impact of culture and religion on sexual and reproductive health indicators, as well as help seeking attitudes among specific group of migrants in Australia. Specifically, the study targeted 1.5 generation migrants, referring to individuals who had relocated to a new country or when they were between 6 to 12 years old. The study conducted an online survey involving 111 respondents who answered questions about their cultural connectedness, religion, sexual and reproductive health and help-seeking. The study established, there was no significant difference between ethnocultural groups or levels of cultural connectedness in relation to sexual and reproductive health help-seeking attitudes. The results also suggested that they were differences between religious groups regarding seeking help specifically from participants parents. The respondents who reported having no religion were more likely to seek help with sexual and reproductive health matters from their parents. However, while cultural norms of migrant's country of origin can remain strong, it is religion that seems to have more of an impact on how 1.5 generation migrants seek help for SRH issues. This therefore shows the influence of religious beliefs on RH seeking behaviour.

Achen, Atekyereza and Rwabukwali (2021) studied the role of culture in influencing sexual and reproductive health of pastoral adolescent girls in Karamoja sub-region in Uganda. The study adopted ethnographic method collecting data from individual respondents, key informants, and

focus groups both made up of adolescent girls. The data was organized and analysed using thematic analysis assisted by Atla.ti 8.4.15. The findings indicated that the Karamojong people value cattle so much, it's a form of wealth. At the same time cattle is exchanged as bride wealth. This forces families to marry off their daughters to wealthy men regardless of how many wives they have, and they also don't put into considerations the HIV status of the bride grooms. Culturally, the community performs Female Genital Circumcision which affect the SRH of adolescent girls in the community. The adolescent girls who had undergone circumcision ritual reported challenges during delivery. Meaning cultural practices can predisposed adolescents to reproductive health issues hence the need for them to have access to RHS.

Kinaro, Wangalwa and Karanja (2019) studied the socio-cultural barriers influencing utilization of sexual and reproductive health (SRH) information and services among adolescents and youth aged between 10 to 24 years in pastoral communities in Kenya. The study was conducted in Samburu and Turkana counties in Kenya. The study adopted purposeful design utilizing primary qualitative data. Data collection was conducted among focus group discussions, in-depth interviews (IDIs) and Key Informant Interviews (KIIs). The target groups were adolescents and youths aged between 10-24 years, health care providers, community health volunteers (CHV's), chemist assistants, parents of adolescents and youth, teachers, spiritual leaders and traditional activists. The study revealed that socio-cultural factors influenced utilization of SRH services and information. Early marriage, being youth, male only decisions on sexuality matters and fear of family contribute largely to unprotected sex while myths and misconceptions on contraceptives affected utilization. The findings also indicated that the youth need to know sources, how contraceptives work and how to use them. The study suggested that capacity building of health

care providers, CHVs, teachers, parents and community leaders on adolescence, sexuality needs of adolescents and disadvantages of female genital mutilation (FGM) including early marriage.

2.3.2 Effect of Education on uptake of Reproductive Health Services

Nyashanu, Nyashanu and Ekpeyong (2020) explored barriers to sexually transmitted infections and HIV testing among young black sub-Sahara African communities in diaspora, in the United Kingdom (UK). The study adopted an explorative qualitative research approach. The study consisted of 6 focus groups made up of 10 people each and 12 one-to-one follow-up interviews were held with the research participants. Also, the study held two one-to-one follow-up interviews with each focus group. The study revealed that perceived risk taking, perceived HIV test embarrassment, sexual health professional's attitudes, perceived HIV as death sentence, limited education awareness and general HIV stigma prevented research participants from testing and impacted on their mental health well-being. The study recommended that there was a need to increase sexual health and mental health education awareness among the young Black sub-Saharan African communities. Additionally, culturally sensitive interventions must be enacted to reduce the impact of HIV stigma.

Adokiya, Cudjoe and Yakong (2022) examined predictors of education and utilization of adolescent-friendly health services among youth in Kumbungu district in Ghana. The study used a cross-sectional design involving 416 adolescents from households using random sampling technique. The data was collected basing on sociodemographic characteristics, education and utilization of adolescent-friendly health services using a semi-structured questionnaire. The study incorporated logistic regression models in determining factors associated with AFHS education and utilization. The study revealed that utilization of adolescent health services is influenced by adolescents' knowledge and education.

Jensarikorn, Phlainoi and Phlainoi (2019) studied accessibility to reproductive health rights among adolescents in three provinces of Thailand. The study employed a qualitative method to extract information from 80 informants. Data was collected using in-depth interviews, focus group discussion, observation, data recording, audio recording and the review of related documents. The study found out that adolescents had not accessed to their right on informing of their decision making; information and education; health; confidentiality and privacy; and treating with equality and no discrimination. The study also established that conditional factors influenced the accessibility on such rights were lacking knowledge on reproductive health and negative attitude toward this matter among the people concerned. There were still no regulations or policies on the performance of authority agencies and the factors on social dimensions, traditions, customs, sexual culture and religion.

Ninsiima, Chiumia and Ndejjo (2021) examined factors influencing access to and utilization of youth-friendly sexual and reproductive health services in sub-Saharan Africa. The study conducted a systematic review of studies that were published between 2009 and 2019 on PubMed, EMBASE, Web of Science, Medline and Cochrane Library. The studies were screened based on the inclusion criteria of barriers and facilitators of implementation of YFSRHS, existing national policies on provision of YFSRH, and youth perspectives on these services. The review revealed that structural barriers and individual barriers such as lack of knowledge among youths regarding YFSRHS were factors. Interventions proposed were intensive training of health workers and putting in place guidelines for clinics to offer services as per the needs of the youths. In addition, educating the youth through community outreaches and health education programs for those in schools can facilitate utilization and scale up the service.

2.3.3 Effects of Attitudes towards uptake of Reproductive Health Services

Muanda, et. al (2018) examined the attitudes toward sexual and reproductive health among adolescents and young people in urban and rural DR Congo. The study adopted qualitative research design. A total of 14 focus group discussions were conducted with a total of 224 adolescents and young people aged between 15 and 24 years in urban and rural areas of the DRC. The data was analysed using thematic content analysis. The study also identified verbatim quotes that succinctly captured common responses for use in the article. The study found out that in both set up, rural and urban, premarital sex was largely sanctioned by peers but not adults; adolescents feared pregnancy and had limited knowledge of contraceptive methods. Many of them had misinformation that certain common pharmaceutical products prevent pregnancy. The main factors that prevented access of contraception from health facilities and pharmacies included shame and stigma; urban participants also cited cost and judgmental attitudes of health providers.

Namukonda, Rosen, Simataa and Mbizvo (2021) studied sexual and reproductive health knowledge, attitudes and service uptake barriers among Zambian in-school adolescents. The study used mixed-methods approach characterizing adolescent SRH knowledge, attitudes and service utilization experiences contextualizing comprehensive sexuality education (CSE) implementation in Zambia. The study randomly surveyed 1, 612 young people aged between 12-24 years in the North-Western province. The study constructed a 29-item index to measure alignment of knowledge, attitudes and values with the CSE curriculum. The study employed logistic regression, stratified by sexual debut status, modelled associations of past-year HIV counselling and testing and family planning service access, respectively, with CSE-KAV index scores. The study established that limited perceived benefits, unsupportive household and community environments, and negative interactions with health providers acted as salient barriers to SRH service uptake. The

findings revealed that knowledge and attitudes did not have any significant effect on either past-year HIV testing or family planning service uptake among participants.

Kimathi, Mireku, Wanjiru and Otiso (2020) conducted a study on factors that influence access of HIV and sexual reproductive health services among adolescent in Kenya. The study adopted a cross-sectional study using qualitative methods. A total of 9 focus group discussions and 18 in-depth interviews were conducted with 108 adolescents in Mombasa, Kisumu and Nairobi counties of Kenya. The data was digitally recorded, translated, transcribed and coded using NVIVO 10 before analysis. The results indicated that adolescent key populations preferred to access services in private health due to increased confidentiality, limited stigma and discrimination, access to adequate numbers of condoms, and friendly and fast-tracked services. Negative health provider attitudes made adolescent dislike accessing health care in public health facilities. There was a lack of adolescent key population's policies and guidelines on HIV and SRH.

Mutea, Ontiri, Kadiri and Gichangi (2020) studied access to information and use of adolescent sexual reproductive health services. The study was conducted in Kakamega and Kisumu towns in Kenya. The study adopted a qualitative research design. A total of 113 participants engaged in key informant interviews, in-depth interviews, and focus group discussions. The participants were adolescents, health care workers, teachers, county leaders, and community representatives. The data was captured using audio recorders and field notes. Socio-demographic data was analysed for descriptive statistics, while the audio recordings were transcribed, translated, and coded. NVIVO was used in thematic analysis. The findings indicated that negative health workers attitudes, distance to the health facility, unaffordable cost of services, negative social cultural influences, lack of privacy and confidentiality were barriers towards access to sexual reproductive health services.

2.3. Effects of Economic Factors on Uptake Reproductive Health Services

Nmadu, Mohammed Usman (2020) examined the barriers to adolescents' access and utilization of reproductive health services in a community in North-Western Nigeria. The study was conducted in three primary healthcare centres in Kaduna North Local government areas. The study adopted exploratory descriptive qualitative research design. Fourteen adolescents and three RHS providers were selected and interviewed. The data collection methods included individual in-depth interviews with adolescents and key informant interviews with service providers. The study suggests that several factors contribute to the limited utilization of reproductive health services (RHS) among adolescents. It identifies individual factors, such as inadequate knowledge and negative attitudes towards RHS, as well as social factors including parental influence, community and religious norms, financial constraints, and stigma. Additionally, health system factors, including poor attitudes of service providers and inconvenient health facility opening hours, were found to hinder adolescents from accessing RHS. While the study acknowledges the multifaceted nature of the barriers, it emphasizes the strong influence of social factors, particularly religious values, on adolescent behaviour regarding RHS. It suggests that adolescents feel constrained to utilize RHS due to a sense of commitment to religious norms.

Mutua, Karonjo, Nyaberi and Kamau (2020) examined the socio-demographic and economic factors influencing utilization of youth friendly reproductive health services among youths in selected universities in Nairobi County in Kenya. The study adopted a descriptive cross-sectional design to study 421 youths in selected universities in Nairobi County. The study adopted systematic sampling technique. The data was collected using a researcher-administered structured questionnaire and Key Informant Interview. Quantitative data analysis was conducted using SPSS version 24.0 and involved bivariate and univariate analysis. Chi-square were used to test the

significance of the association between the dependent and independent variables. Thematic content analysis was used to analyse qualitative data. The findings from the study revealed that gender was greatly associated with utilization of ANC services, FP services and STDs treatment while age of an individual was associated with VCT services, FP services and counselling as reproductive health services offered to the youth. The study also observed that youths with a source of income had higher utilization of all youth reproductive health services. Hence, it greatly was associated with VCT services, ANC services and FP services, however it was not associated with counselling.

2.5 Institutional factors in healthcare facilities that determine RHS uptake

Where there is a supportive and safe environment, adolescents are always motivated to make, reinforce and maintain healthy choices. The health centres are supposed to be tolerable, reachable, unbiased, suitable and effective. However, from previous observations, it is unarguable that even when clinics and other service providers do not intend to prevent adolescent clients' access to their services, operational policies or clinic characteristics can inadvertently serve top reduce accessibility and uptake of reproductive health services(Ababor et al., 2019; Phillips & Mbizvo, 2016). From the various literature studied it is clear that various institutional factors that affect the uptake of reproductive health services include health provider operability, health provider location, expensive services and lack of information and communication channels and materials. Additionally, legal and policy frameworks play a great role in ensuring that SRH services are taken or not.

Pandey, Seale and Razee (2019) explored the factors impacting on access and acceptance of sexual and reproductive health services provided by adolescent-friendly health services in Nepal. The study applied a qualitative research design involving six focus groups with 52 adolescents and in-depth interviews with 16 adolescents, 13 key informants, and 9 health care providers from six

adolescent-friendly health facilities in Nepal. The main themes identified included travel, institutional health care barriers, perceived lack of privacy and confidentiality, and the unprofessional attitudes of staff towards the sexual health needs of adolescents. The study found out that the distance to the nearest health facility was one of the major barriers to utilizing AFHS. Adolescents would go to a private pharmacy near their homes rather than spend the time required to get to the health facility in their village. The location of an AFHS within easy physical distance is, hence, a likely factor in adolescents' use of the services.

Onyando, Oluoch and Njuguna (2018) examined the factors influencing effectiveness of youth friendly centres in Kenya. The study focused on Kisumu County, one of the counties with extensive youth sexual and reproductive health indicators. The study used both qualitative and quantitative approaches in data collection and used survey research adapting descriptive cross-sectional design and semi-structured questionnaire in interviewing 182 young people seeking for services in 8 centres. Key informants were interviewed using an interview guide and they were service providers. Focus group discussions were conducted with the youth from two of the facilities, while a checklist was used to assess mostly institutional elements. The data was analysed by SPSS for quantitative data and NVIVO for qualitative data. The study revealed that, most health providers are in the towns hence adolescents in the cities have a higher chance of taking SRH services as compared to those in the villages where there are less health centres. However, the study insisted that it was important about the health service provider; that the adolescents were comfortable visiting providers who were in areas with less human activities in order to be guaranteed confidentiality.

2.6 Theoretical Framework

The study was guided by two theories; sociological theory of adolescence and contemporary theory of adolescence.

2.6.1 Sociological Theory of Adolescence

The sociological theory of adolescence explains how adolescents as a group come of age in society, and how the coming of age varies across historical epochs and cultures. The focus of sociological theorists is on relations between generations. They emphasize problems that young people have in making the transition from adolescence to adulthood. The focus thus is moving through adolescence to adulthood. Steinberg (2001) while quoting Kurt Lewin (1951) and Edgar Friedenberg (1959) noted that the difficulties that adolescents experienced in transitioning into adulthood arose because adolescents are treated like 'second class citizens' (see Steinberg, 2001). This view was supported by the contemporary theorists who stress that many adolescents are prohibited from occupying meaningful roles in society and therefore experience frustration, restlessness and difficulty in making the transition into adult roles.

Other sociological theorists of adolescence consider the intergenerational conflict or the generation gap. Steinberg (2001) further quoted Karl Mannheim (1952) and James Coleman (1961) and observed that adolescents and adults grow up under different social circumstances and therefore develop different sets of attitudes, values and beliefs. According to Mannheim, modern society changes so rapidly and as such, there will always be problems between generations because each cohort comes into adulthood with different experiences and beliefs. Coleman argued that adolescents develop a different cultural viewpoint (counterculture) that may be hostile to the values or beliefs of adult society. Emphasis is thus on the broader context in which adolescents come of age, rather than on the biological events that define adolescence.

2.6.2 Contemporary Theory of Adolescence

The contemporary theorists consider the health threats of the present-day adolescents. Steinberg (2001) noted that contemporary scholars are less likely to align themselves with single theoretical viewpoints and that they are likely to borrow from multiple theories that may derive from different disciplines. They integrate central concepts drawn from biological, psychological, sociological, historical and anthropological perspectives to understand the social context in which young people mature and interact with the biological and psychological influences on individual development.

This perspective asserts that adolescence need not be inherently problematic. The contemporary theorists' perspective recognizes the role that biological factors play in shaping the adolescence experience. It however argues that factors that come into play are not merely the biological factors like hormonal changes, somatic changes or changes in reproductive maturity (Kipke, 1999; Steinberg, 2001). Rather, societal influences are co-factors for adolescents' exposure to risky behaviours. The cofactors include unemployment, poverty, disintegration of neighbourhoods as units of social support, declining availability of parents and other adults to nurture and support adolescents, greater opportunities for encounters with violence, and increased exposure to HIV infections.

Contemporary development theorists of adolescence emphasize the direct and immediate impact of puberty on adolescent psychological functioning. They highlight the interplay between biological and sociological factors during adolescence. Steinberg (2001) noted that the onset of puberty is characterized by external signs underlying biological changes in the reproductive organs, which ultimately enable most individuals to produce fertile eggs or sperms, and in girls to become pregnant and carry a baby to full term. These outward physical changes are commonly held to be a sign of 'growing up'. Green and Davey (1995) observed that in a wider sense,

adolescence as a socially recognized phase cannot begin without the outward physical changes or the secondary sexual characteristics that include development of breasts for girls and facial hair in boys, and enlargement of the genitals and growth of pubic hair in both sexes.

The contemporary view highlights the increased realization that today's adolescents are involved in health behaviours with potential for serious consequences, as well as health-risk behaviours at earlier ages than past generations of adolescents. This notion emphasizes the role of intervention in preventing negative health outcomes that may arise because of the risks that adolescents are exposed to. It further recognizes that the health threats of adolescents are predominantly behavioural than biomedical. Further, it argues that adolescent stage need not be potentially problematic and that it is an important time to intervene to encourage adolescents to adopt healthy lifestyles that they may maintain into the adult years. The need to focus on adolescents is observed. Steinberg (2001) observed that interventions introduced during the adolescent years could affect their health outcomes during the adult and senior years. Contemporary notion emphasizes the need to develop and implement preventive strategies to respond to challenges threatening the health of adolescents; thus, enhance the role of medicine in behavioural health (Elster & Kuznets, 1994). Kipke (1999) observed that parents, teachers, community members, service providers and social institutions (including policies) can promote healthy development among adolescents and intervene effectively in shaping their future health.

2.6.3 Relevance of the theories to the study

The sociological theory of adolescence was important to the study as it provided context of understanding adolescents' transition in to adulthood in relation to RHS. According to the theory,

major challenge of adolescents in transition into adulthood is being looked at as a 'second class citizen', in this case therefore one can infer that the society in a way denies adolescents the right to enjoying certain rights. For the purposes of this study the right is to accurate and comprehensive reproductive health information, education and services. Its Denial means adolescents are curtailed in uptake of the RHS. This denial is exercised by parent and service providers who are essentially the gatekeepers of RHS. Through socialization, the adolescent themselves internalize this value, at an individual level and among peers, the value impacts their uptake of RHS. On the hand the contemporary theory of adolescence elaborates that adolescents' development is not only biological but also influenced by societal factors. Societal factors evolve depending on the generation. Therefore, the theory is relevant to the study as emphasises on looking at uptake of RHs from the perspective of the current social circumstances and not merely from a point of biological development, if looked at as only biological, it elicits challenges like parents and service providers denying adolescents access to RHS basing it on their context, as well having polices that do not champion for uptake o RHS by adolescents. It helps in emphasising the need of contextualising uptake of RHs among adolescents in the reality of their current circumstances rather than historical circumstances.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The chapter presents a detailed account of the methodology employed in conducting the study. It encompasses the study site, research design, study population and unit of analysis, sample size and sampling procedure, data collection methods, data processing and analysis and finally, discusses the ethical considerations that were adhered to.

3.2 Study site

The current study was carried out in the informal settlements of the Kangemi area found in Nairobi County, Kenya, Westlands sub-county. The informal settlement areas include Dam, Kaptagat, Bottom line and Kibagare. According to the KNBS 2019 census report, Westlands sub-county has a total of 308,839 people, out of which 60% live in informal settlements. Of the 60%, 24% translates to 44, 472 adolescents aged between 15-19 years. 24, 000 are female while the rest are male. Being an informal settlement, the area is characterized with low-income earners and poor living conditions. The general outlook of Kangemi is characterized by rusty iron sheet houses, majority being single rooms and in the recent past there has been pop up of storey iron-sheet houses, the streets of the area are filled with people and activities, it comprises of cart pullers who are either selling goods or transporting, motorcycle riders and passengers, matatus and traders along the main road and other pathways. The major economic activity are transport and retail trade. The residents are engaged in businesses like selling second hand clothes, vegetables, cereals, cooked food, motorcycle and matatu operations. They also have an open-air market that is busy throughout the week. The people in the informal settlement rely on buying water for usage, there is no access to free county water. There is also mushrooming of churches, privately owned schools, hospitals and pharmacies. The area has two public hospitals that are mainly out of medication hence they refer people to privately owned pharmacies for medication.

3.3 Research design

Researchers can use either of the three research methods: qualitative, quantitative or mixed-method approach. Depending on the purpose of the study, its nature and the research questions that have been formulated to guide the study, researchers are advised to select a research method that is

compatible with the study being conducted (Yin, 2015). Descriptive cross-sectional design was utilised to capture the perspectives of the adolescents in Kangemi informal settlements. The design depicts typical traits of a person, situation and the prevalence with which certain experience occurs (Dulock, 1993).

The methods included; semi structured interviews, key informant interviews and focus group discussions. The usage of all the three was relevant for triangulation of data collection methods.

The researcher chose a qualitative method because it examines the perspective that individuals have on a given phenomenon being studied. The methods explore a given phenomenon with the goal of deeply understanding by focusing on the views, experiences and attitudes that research participants share. Qualitative researchers seek to answer the questions "how" and 'what" (Tenny et al., 2022).

After thorough consideration, the researcher found a quantitative methodology inappropriate.

The study started with semi structured interviews for unmarried adolescents who were purposively selected with help of CHVs. The inclusion criterion was one has to have been living in one of the priority villages in Kangemi informal settlements for at least one year prior to the study. The semi-structured interviews, used open-ended questions to describe the main topics in question, this gave the study participants the freedom to deeply discuss socio-economic and institutional factors that influence uptake of RHS. The interviews were one on one and the MoH Covid 19 guidelines were adhered to. The data collected helped redesign the other data collection tools to maximize the quality of information collected.

Upon completion of SSIs, focus group discussions followed, the discussions were administered to 2 groups, one composed of male unmarried adolescents and the other female unmarried

adolescents. The participants were purposively selected and were residents of the priority location for a period of at least one year.

The FGDs highlighted the norms, perceptions and opinion in Kangemi informal settlements as well as few new aspects of the topic being discussed that had not come up during one on one interviews.

Finally, the KII were administered to service providers within the locality of the unmarried adolescents. These were health officers from public and private health facilities and staff of NGos offering RHS. The KII provided expert opinion as well as addressed concerns raised from the previous data collection methods.

3.4 Study population and Unit of analysis

Study participants were unmarried adolescents of ages 15-19 years. One had to have been living in one of the priority villages in Kangemi informal settlements; Kaptagat, Dam, Bottom line and Kibagare for at least one year prior to the study. Unit of analysis was individual unmarried adolescents.

3.5 Sample size and sampling procedure

A suitable sample size for a qualitative study is one that answers the research questions (Isaacs, 2014). However, there are no set standards for sample size in qualitative research (Luborsky & Rubinstein, 1995) as quoted in (Isaacs, 2014). Other authors are convinced that as an unwritten rule, 12-26 people might seem right, Patton (2002) as quoted in (Isaacs, 2014). Devers & Frankel (2000) state that due to the goals and logic of qualitative research, purposive sampling is often used. Yin (2015) describes purposive sampling as a nonparametric technique that researchers use to conveniently identify and recruit participants who share common experiences in a study. Furthermore, purposive sampling technique allows researchers to focus on a specific population

that has a direct experience with the phenomenon under study. The purposive sampling technique was thus appropriate since this study focused on examining the uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements.

During discussion with the CHVs on assistance with selection of research participants, it was agreed that the CHVs would inform the participants on the location and time when the researcher will be in their area for the to walk in if interested in the interviews. The researcher sat in various social centres in Kangemi, received and interviewed the willing participants. The participants choose the spot comfortable for them. For some it was under a tree and others in a separate room. One thing was common, they all selected secluded spots. The study engaged four categories of KII: the head of Gicagi health centre, a reproductive health officer based in Westlands, a community health volunteer and one officer from LVCT health. The interview with head of Gicagi health centre and that of Westlands health centre reproductive health officer were over the telephone. Before the telephone interview, I called and informed them who I was, where I got their number and purpose for calling. They agreed to the interview and set an appointment for it. The other two were in person interviews.

The FGDs with adolescents were organized, into female only and male only. The FGDS consisted of unmarried adolescents from the priority locations. They were conducted in a central place in Kangemi and participation was voluntary. Individuals who participated in the FGDs were not part of individual interviews.

3.6 Data Collection Methods

Data collection tools were pre-tested before the actual exercise. The study utilised semi structured interview, key informants' interview, focus group discussion guide for data collection. Data was collected using a recorder and stored for the purposes of transcription, coding and analysis.

3.6.1 Semi Structured Interviews

Data collection was done using Semi-Structured Interviews (SSI) on participants. This was the primary data collection method. SSI assisted the researcher in using open-ended questions to describe the main topics in question and at the same time gave participants freedom to digress to a give extent to allow for context that may be useful to the study (Isaacs, 2014). The interviews adhered to the MoH Covid 19 guidelines. The researcher conducted face-to-face interviews in an environment that was free from distractions and one that was comfortable for the participants while observing the covid-19 guidelines. Location, date and time for the interview sessions were selected with the help of community health volunteers who were aware of safe spaces within the informal settlements. Participants were encouraged to choose interview locations from these safe spaces. Patton (2014) establishes that providing participants with their preferred interview location improves their involvement, makes them free and comfortable and in return reduces bias. Furthermore, not only do participants feel more empowered when they are allowed to have a say in the interview location, but the interviewer also builds a trust level with participants (Stake, 2010). SSI guide was used (appendix II)

3.6.2 Focus Group Discussions

Focus group discussions were also used to collect data. An FGD guide was developed by the study to be used in the group discussions. The FGD consisted of participants of the same gender, sex and age bracket in order to make them comfortable to air their views and thoughts without fear regardless of their ability to read or write. Participants were put in groups of 6 each and the researcher acted as a moderator who also took notes for the female focus groups. The researcher contracted a male research assistant who was trained on the study purpose, procedures and the discussion guide to help in moderating and taking notes for the male discussion groups due to the sensitive nature of the study phenomenon. The FGDs were conducted in the safe spaces and

participants were assured of confidentiality and safety. MoH Covid 19 guidelines were followed. FGD guide was used (appendix III)

3.6.3 Key Informant Interviews

The researcher also used key informant interviews to collect data. They included the head of Kangemi health centre, a reproductive health officer based in Westlands, a community health volunteer, a health officer from Marie stopes and a one officer from LVCT health KII guide, appendix IV attached, was used. The key informants were useful in giving their view concerning the topic from a service provider perspective. Interview was one on one and through phone call. The interview format was dependent on the individual's preference, either through phone or one on one. The MoH Covid 19 prevention guidelines were strictly observed in the one-on-one interviews.

3.7 Data Processing and Analysis

The researcher used audio tape recorder and notes during semi structured interviews, FGDs and KII. The researcher followed appropriate data management processes in order to guarantee integrity and confidentiality. More specifically, the data analysis process followed three steps; data organization, coding the system to recognize emerging themes from the interview process, and presenting the analysed data. The data was then transcribed onto a word document. After transcription the data was transferred to the coding Analysis Toolkit for analysis. The application assisted in coding data based on the research objectives. Analysis was done focusing on socio-economic characteristics and institutional arrangements that influence uptake of reproductive health services.

Data coding entailed going through the transcripts and extracting excerpts from particular text, interpreting their meaning and assigning a code that speaks to the research objectives. These

excerpts were then analysed to come up with the relationship between them. The results were then presented using themes and capturing quotes in verbatim.

3.8 Ethical considerations

The study observed all ethical considerations that pertain to working with human beings during research. The researcher got clearance from the university department and a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) under permit number NACOSTI/P/21/14135. During the interviews, the researcher explained to the participants, what the research was and the purpose for the research. The Participants would then sign the informed consent form (appendix I) confirming their understanding and acceptance to be research participants. The researcher further informed the participants that the interviews will be recorded for the sole purpose of analysis, since rely on memory and notes would not be sufficient and accurate.

The study participants were assured that their data would be protected throughout the research. Their data would be securely stored in Google drive without any personally identifiable information. Once research was completed, the data would be permanently destroyed following ethical guidelines. Only researcher involved in the study would have access to the data, ensuring strict control over data handling and maintain confidentiality and security.

Despite the discussion on benefits and some people signing the informed consent, there were participants who still expected some form of compensation, especially monetary value. The research firmly reminded them that the research did not have any individual benefits and that they are free to withdraw their responses. They are individuals who rejected participation upon knowing

there was no monetary compensation. Additionally, there were individuals who were not within the priority population who wanted to participate in the study, the researcher had discussions with them on why they were not accepted as participants. Some parents requested if they could listen in to their children's interviews, this was denied by the researcher. The researcher explained to the parents why that was not possible: it would interfere with the ethical considerations and authenticity of the discussions. The concerned parents were content with the explanation and allowed their children to participate in the research.

CHAPTER FOUR: SOCIO-ECONOMIC CHARACTERISTICS AND INSTITUTIONAL ARRANGEMENTS INFLUENCING UPTAKE OF REPRODUCTIVE HEALTH SERVICE BY UNMARRIED ADOLESCENTS

4.1 Introduction

This chapter presents the findings of the study as guided by the research questions and specific objectives. The chapter untangles the socio-economic characteristics that inform uptake of reproductive health services and ways in which institutional arrangements in healthcare facilities influence uptake of reproductive health services among unmarried adolescents in Kangemi informal settlements. In relation to the two guiding theories; sociological theory of adolescence and contemporary theory of adolescence, the study explores challenges (socio-economic and institutional) that unmarried adolescents navigate while seeking RHS in a society that hinders their rights and opportunities to utilize the services. The challenges are categorised into four; individual, relational, community and societal. The findings are presented in tandem with discussion on each study objective under the following sub headings; socio-economic and institutional determinants of uptake of RHS among unmarried adolescents in Kangemi informal settlement.

4.2 Socio-economic determinants of RHS uptake among unmarried adolescents

The study identified several socio-economic determinants of RHS and categorized them into three, individual, relational, community level. The individual determinants were identified to be age, sex, fear of stigma and embarrassment, having a child, knowledge and education level. Relational determinants were noted to include socio-economic status of the family parental influence, type of family and peer influence. On the other hand, community determinants included gender norms and values. The study was guided by two theories, sociological theory of adolescence; which notes the

difficulties that adolescents experienced in transiting into adulthood, arose because adolescents are treated like ‘second class citizens’ (Steinberg, 2001) and contemporary theory of adolescence; emphasizes development of adolescence is influenced by a number of factors, biological and societal, concurrently. with this understanding one can infer that the socio-economic factors are as a result of a society that does not recognise the right of the adolescent to access RHS as well as lack of appreciation of change in circumstances in the development of adolescents.

The findings are as presented and discussed below;

4.2.1 Individual level factors

Age

Age was significant in this study due to categorisation into early and late adolescence. It was therefore relevant to see if the categorisation has an influence on uptake of RHS. The study determined that the older an adolescent was, the higher likelihood of uptake. Many of the adolescents from ages 16 and 19 seemed to be more knowledgeable on reproductive health services as well utilisation. The younger adolescents who were 15 years demonstrated lack of or minimal knowledge on RHS as well as utilisation. In as much as they were engaging in sexual activities and they were experiencing reproductive changes. It was also apparent from the interviews that the majority of the population assume younger adolescents do not have needs when it comes to RHS. Additionally, there was a widely shared belief that discussing and giving younger adolescents access to RHS is “ruining” them. Surprisingly, there are adolescents who access reproductive health services but on behalf of their older siblings. The below excerpt describes the situation deeper.

"I take Prep and condoms from the office, they are not mine, they are for my sister…older sister, she asks me to get them for her…" **(SSI, female,15 years),** four respondents reported this.

"…I once went to the health centre and asked for P2, the service provider laughed and said I stop playing and that I am too young to be using P2…" **(SSI, female,15 years)**

"I have never used any reproductive health services. It is for older people not children" (**SSI, female,15 years**). This response was prevalent among a number of 15-year olds.

"I am 18 years old, I dropped out of school due to pregnancy. I had a boyfriend older than me, I did not know that I'd get pregnant. Now I am wiser, I know better and where to access the services that I need to protect myself." **(SSI, female,18 years**).

"I will say that older adolescents (ages 18 and 19) are mature women and have good knowledge on the RHS. I started inquiring about RHS four years ago when I started experiencing menstrual periods and now I have learned a lot about reproductive health. As opposed to young girls of ages 15 who are finishing primary school or starting high school education, they have less knowledge of RHS, but they will learn with time" **(SSI, female,19 years)**

During FGD, the researcher posed the question to the group*, "who are the people who have access and knowledge on reproductive health services?* The participants responded with form two pupils and above, as quoted below. They further explained that it does not mean that the once in lower classes do not engage in sexual activities, they do but they are not knowledgeable.

"we can say students in form two and above. This does not mean the ones in lower level do not, there are those who do and have the knowledge and where to access however majority do not know, and those who know you will discover that they have friends who are older than them who teach them." (**Female FGD**).

"…...many young girls who are of ages below 15 years may not understand much about the RHS...We are encouraged to talk about RH and RHS for girls who are joining high school so that they can have some good knowledge. The girls in form four have learned a

lot about RHS and we are sure they use different services when the need arises" **(KII, participant)**.

Several studies have established that age is a key determinant of utilization of RHS especially among female adolescents. The older the adolescent is, the more knowledge and experience of using RHS (Beguy et al., 2013; Melesse et al., 2020; Violita & Hadi, 2019), (Mutua et al., 2020), (Beguy et al., 2013). Given that at late adolescence, many girls will be in high school and sometimes tertiary education, their level of understanding on RHS is estimated to be high as opposed to early adolescents who might be in primary schools (Miiro et al., 2018). (Mohammed, 2013). There is a slight difference from findings by the Kenya Demographic Health Survey (KDHS) 2023, that looked into knowledge and prevention of HIV as well as sexual behaviour. The findings were, knowledge an HIV prevention was lowest among 15-17 years yet sexual behaviour 15-19-year-old engaged in high risk behaviour compared to the other age brackets, (National Bureau of Statistics Nairobi, 2023).

Sex and gender of the adolescents

During the study, sex and gender were stressed to be key determinants for adolescents to seek RHS and counselling. It was identified that more female than male adolescents seek for RHS guidance. The study informants reported that reproductive health services are primarily a female affair with some stating that they do not think men should seek the services. They further stated that the consequences of sexual activity lie more on females than males. 27 out of 30 study informants agreed that girls are prone to challenges that are as a result of reproductive health than the boys do. Narrating from monthly periods, to STIs and danger of unplanned pregnancies that lead to abortions are some of the sex and gender specific challenges that girls encounter as adolescents. KII added, the female anatomy predisposes women to reproductive health concerns compared to

men, hence for females they will at one time in their life visit health facilities for RHS. Two of the female FGD mentioned they know girls who died due to abortion complications.

> "Tunajua dem fulani,tuligrow pamoja,alikufa ju ya abortion "(We know of a girl we grew up with, she died due to abortion complications) FGD participants recall.

During FGD discussion, participants said that,

> "as ladies we face so many challenges that is why we have to know more about RHS and use them accordingly" **(Female FGD participants)**

In the male FGD, the participants mentioned that reproductive health services are a female thing, they backed up this statement by saying

> "we ata angalia madvert mob, zote zukuwa kuhusu madem. Sai ata maorganistaions mob zinawawork na madem na si maboy. So hiyo inamanisha reproductive health si ya mandume." **(Male FGD participants).** This translates to, majority of advertisement focus on females as well as organisations. This therefore means reproductive health is not meant for males but females.

One of the KII echoed the above and mentioned majority of their clients on reproductive health are females and this cuts across all ages.

> "We rarely serve male clients. Even right now if we go to the reproductive health area, you will find females both adolescents and the rest. Males do not seek these services. Even when it comes to treatment of sexually transmitted diseases. Most of the time it the lady who will seek treatment, but given the policy of where they need to be accompanied by their sexually partner then they need to go back and come with their partner. Sometimes they do not come with their partners, some say the partner has refused and sometimes they say it was a one-night stand." **(KII participant).**

> "Females are prone to different infections if they do not adhere to good reproductive health practices. Once a girl starts experiencing her menses, they are to maintain healthy reproductive life and ensure good hygiene failure to which they need seek and utilize RHS more than their male counterparts" **(KII participant).**

> "Girls are known to seek for RHS more than boys. This is because, at adolescence, many changes happen in girls which are crucial for maintain high hygiene than boys. During menstrual cycles, girls experience blood flow which can turn into infections if not handled well. This is why we target girls in many health talks about RHS in primary and high

> school, to teach them about the available RHS and how they can use… let us say about, pregnancy, boys won't, but girls must be taught on how to avoid such by the use of known RHS**" (KII participant)**

To further explain why females, seek reproductive health services more than males, a key informant had this to say

> "Given females reproductive system, they are susceptible to a number of infections that necessary have nothing to do with sexual activities, for example yeast infection, they require treatment hence whether they like it or not they will need to go to a pharmacist or to health centre for assistance."

Studies (Challa et al., 2017; Crossland et al., 2015) have shown that females tend to utilise reproductive health service more compared to males. For instance, in school, girls are encouraged to attend counselling sessions. A study carried in Ghana on uptake of RHS among school boys and girls established that girls were known to have more knowledge and access to RHS as compared to boys. Moreover, school going girls were encouraged to attend counselling sessions (Challa et al., 2017). According to the findings of the study, the number of youths who have ever been tested increased from below forty percent in 2003 to eighty percent in 2012 this for both sexes. When the data is sex segregated for males the number increased from eight percent to forty-eight while for female ten percent to sixty four percent, (Crossland et al., 2015). This means that females in Uganda utilise HIV testing service more, compared to males. These two finding coincide with th KDHS 2023 report where nationwide more women than men Utilise RHS (National Bureau of Statistics Nairobi, 2023). However, there are finding that contradict with the aforementioned studies as well as this, (Ansha et al., 2017) demonstrated, utilisation of family planning and Voluntary Counselling and Testing (VCT) was average among adolescents. Males had a higher likelihood of up to five times higher of utilising VCT services compared to females. as well this study. A study in Ghana had the following findings when looking into HIV knowledge and service utilisation among university students. The study established, females were more knowledgeable

on matters of HIV compared to male students, however, in future males had a higher likelihood of getting tested compared to females, (Oppong Asante, 2013). From the studies one can conclude that different context present different challenges and opportunities for utilisation of RHS.

For the case of Kangemi informal settlements, the major NGOs that provide RHS intervention target adolescent girls and young women. This therefore creates bias when it comes to knowledge and utilisation of RHS, this also informs the notion that RHS is for females and not males.

Knowledge and level of education

The study determined that the level of education of adolescents influences the use of the RHS. Adolescents with high level of education, that is, those who have completed or are in secondary school and those with tertiary education were reported to have higher knowledge of RHS and have utilised a number of RHS. On the other hand, those who had completed or in primary education were reported to have lower knowledge of reproductive health as well as low uptake of the services. The unmarried adolescents who had only primary education reported to have minimal use or never used reproductive health services. During the study,15-year olds who were in primary school had minimal interaction with RHS compared to 15-year olds in secondary school. The higher uptake of RHS was reported among unmarried adolescents who had tertiary education and secondary education. Information from one of the KII indicated that education level had a major role in knowledge and utilisation of RHS. They narrated that,

> "adolescents who have higher education are able to understand more about RHS. The ones who have more education (secondary and tertiary) know the importance of the services and engage in sexual behaviours, they therefore utilise the services knowing very the benefits. Unlike those who have low education (primary level or never had formal education) they do not appreciate the services due to lack of knowledge but this does not mean they do not utilise they do only that they either do it too late and when there is need, their utilisation is not preventative." (**KII Participant**).

A study that was looking into utilization of RHS among young people conducted in Ghana established that education level is directly proportionate to the level of RHS uptake. More senior students were reported to using RHS as compared to junior high school students (Alhassan et al., 2019). Still in Ghana, Adokiya, Cudjoe and Yakong (2022) revealed, utilization of adolescent health services is influenced by adolescents' knowledge and education. (National Bureau of Statistics Nairobi, 2023), confirms this with regards to HIV prevention knowledge, the study states, HIV prevention knowledge increases with increase in education of among young women and men. Though the percentage differs with gender, 13% among young women with no education to 69% among those with more than as secondary education and from14% among young men with no education to 80% among those with more than a secondary education.

Fear of stigma and embarrassment

This factor was double edged, on one hand, it unveiled that unmarried adolescents do not partake in RHS because according to them they have a reputation to maintain, they do not want to be perceived as people who engaged in sexual activities. See the verbatim quotes below.

> "going to the hospital to seek this service is hard, personally I send my young sister to fetch me Prep when I need them, I do not want people to judge me." **(SSI female participant,17-year-old).**

Additionally, they reported that there is fear of stigmatisation both from peers, family and community at large. Others reported that the health care workers themselves sometimes give them a look suggesting they are too young to be seeking RHS.

> "I have an injection but no one among my friends know, I have heard how they discuss others and I would not like to be discussed, they make you appear evil." (**SSI female participant,18-year-old).**

> "when other parents know that you go for these things (reproductive health services) they tell their children not be your friend…" (**Female FGD participants**)

> "Sometimes you want to purchase condoms but the challenge normally is how to, you are scared of being judged by the shopkeeper and others. In the end you risk your life out of fear and embarrassment from others. **(Male FGD participants**).

There was a lot of nodding cheers from other peers suggesting it was a situation they all know too well.

The KII added their sentiments on this by stating;

> "When unmarried adolescent seeks services, they are normally very shy, as a health practitioner if you are not keen you may end up not addressing their concern, some come with STIs but they down play it which may lead to a misdiagnosis, we also have some who during the sessions they will avoid eye contact at all cost and this is understandable."

Fear of stigma has been identified and discussed by many researchers and scholars as a key hindrance for adolescents to have access to and utilize RHS in many countries. Studies show that many adolescents are afraid of being exposed by health officers, peers and teachers after up taking RHS which can lead to embarrassment and stigma (Charlton et al., 2019; Mohammadi et al., 2016). As pointed out by Logie et al. (2019), stigma among adolescents who seek RHS has been reported among refugees in Uganda which led to many youths to shy away from accessing and up taking RHS services in refugee camps as well as in schools. Further, study agrees with the findings, (Muanda, et. al ,2018) examined the attitudes toward sexual and reproductive health among adolescents and young people in urban and rural Democratic Republic of Congo. The study found out, in both set up, rural and urban, premarital sex was largely sanctioned by peers but not adults; adolescents feared pregnancy and had limited knowledge of contraceptive methods. Many of them had misinformation that certain common pharmaceutical products prevent pregnancy. The main factors that prevented access of contraception from health facilities and pharmacies included shame and stigma.

On the other hand, the study uncovered fear of stigma and embarrassment can lead to adolescent utilising RHS in a bid to avoid ruining their reputation and their family's with pregnancies and STIs. The study participants in SSI and FGDs confirmed that female unmarried adolescent have been forced to seek RHS to avoid bringing shame to their families as well as their reputation.

> "I would not want to bring shame to my mother, so I would rather use FP (family planning) to avoid getting pregnant." **(SSI female participants,16-year-old).**
>
> "Why do you think girls procure abortion? They are trying to save themselves and families shame that comes with having a child while in your mother's house." **(Male FGD participants)**.
>
> "Wasichana wamezalia kwao huwa na aibu mob hata wazazi huboeka nao" (Girls who have children while living with their parents' face stigma, their parents are disinterested in them), **(SSI male participant,19-year-old.)**
>
> "For people who use family planning, they do so that they don't get pregnant, right now people can be looking at you and they think you are innocent (not sexually active) when you get pregnant they start saying that they can't believe it, that you are pregnant, that you were pretending to be a good girl. To avoid all that, you are better of preventing the pregnancy than be talk of town." **(Female FGD participants).**

Having a child

The study findings indicate that unmarried adolescents who have a child(ren) are more likely to utilise RHS compared to those who are childless. This was attributed to the fact that they know better, they learnt from their previous experience.

> "Probability of an adolescent who has a child to utilise RHS are higher compared to one without a child…These ones have learnt a lesson, they can't risk." **(KII participant**)

"People judge you, you are reference point when parents are warning their children against sexual behaviours, sometimes you family disowns you. It's just too much for someone, so if you are clever, you do the necessary use contraceptives and use condoms." (**Female FGD participants)**.

Similar thoughts were shared during one on interviews with a number of participants.

> "I impregnated a girl, I do not want to recall the drama that happened between our families. I was forced to provide. I would not want to be in a similar situation again, I am still young and have dreams…it is difficult to balance. So nowadays I use condoms or ask the girl if she is safe" (**SSI male participant,18-year-old**).

The findings in this study are in tandem with a study in Ghana that examined socio-cultural determinants of contraceptive use among adolescents. The study found out, majority of adolescence would utilize contraceptives if they did not want to get pregnant or if they want to continue with their education. Having a child was also a determinant on contraceptive use, the study observed contraceptive utilisation one a teenage woman has had a child the prevalence rose to a level comparable to that of twenty plus old women, (Yidana et al., 2015).

4.2.2 Relational level factors

Peer and parental influence

The study unravelled that peers and families play a role in uptake of RHS among unmarried adolescents. They either encourage or discourage use. Peer and parents discuss myths and misconceptions about RHS. These misconceptions are normally against the use of RHS. Furthermore, some parents due to fear of shame take their children(girls) to health centres for reproductive health services, particularly contraceptives. They do this to ensure that they children do not get pregnant and 'embarrass' them.

> "We know girls who have family planning and this was facilitated by their mothers. They did not want shame. Your mother just comes and tells you are going to the hospital, you get there, things are done on you. Some girls know what is happening and others do not know. May once you grow up is when you will understand what happened…" (**Female FGD participants**)

> "I have an injection but no one among my friends know, I have heard how they discuss others and I would not like to be discussed, they make you appear evil." (**SSI female participant,18-year-old).**

> "My first day of going to VCT was because of my friend, he encouraged me to get tested…I was scared but he was there…" (**SSI male participant, 17 years old**)

> "People say sex with a condom is not good…also friends tell you if your girlfriend insists on using a condom, it means she is cheating." (**Male FGD participants**)

> "Nikienda na condom kwa mresh,ataniuliza hizi ni gani." Loose translation, if I suggest to use a condom with my girlfriend, she will question me. (**SSI male participant,19-year-old**)

> "There were this people who go door to door testing people, people were testing in the plot, so I got excited and tested, later regretted, my mom was not happy. She told me that I have become a bad girl and that is why I got tested because I have started knowing men. Since then I never associated with any HIV or family planning. I did not want to look bad…these days I use the services including cervical cancer screening." (**SSI female participant, 19-year-old**).

Part of the findings tally with a study in Ethiopia that looked into knowledge of reproductive health and utilisation of service among rural adolescents found out that the uptake and knowledge of the priority population was low, this was due to a number of factors among them parent disapproval, and pressure from partners (Abajobir & Seme, 2014). Other findings by (Mumah & Kabiru, 2014) suggest that the high levels of unintended pregnancy among adolescents in Kenya's urban informal settlements are connected to myths and misconceptions about contraception. Adolescents depend on information from peers rather than health care practitioners. These findings confirm the findings from this study on myths and misconception as a barrier to utilisation of RHS.

Socio-economic status of the family of the unmarried adolescents

The determinants that enhance and/or discourage the use of RHS among unmarried adolescents that were linked to family were identified and categorized into two broad categories as summarized in the table below;

DETERMINANT	PERCEIVED AS ENABLERS	PERCEIVED AS CONSTRAINTS
FAMILY INCOME	High and medium	Low
NUMBER OF BREADWINNERS	More than one	One or less
PARENT MARITAL STATUS	Married	Single

Table1: Summary of family determinants on RHS Uptake.

It was identified that family economic status was a determinant which could enhance or hinder unmarried adolescents to have access to RHS in Kangemi. A majority of informants who were from families where there is higher income; both parents or head of household had a source of income demonstrated high knowledge on reproductive health services as well as utilisation. Majority cited getting information from both traditional media and digital media. Whereas those whose parents or family head relied on casual jobs to get by had low levels of information as well as utilisation. It's important to note that the former had television, radio and at least one smartphone in their household whereas the latter either did not have or had one of the electronics which was mostly radio. Additionally, there was the issue of financial capacity. Participants from families with a stable source of income mentioned having access to some amount of money which they would use to access RHS for instance fare for motorcycle, or money to purchase a pregnancy test kit or any other service that required money. Money was acquired through daily pocket money to buy snack while at school or loose change after being sent to the shop. On the other hand, their counterparts from families with unstable income mentioned access to basic items like sanitary pads was a struggle.

> "I know about oral quick due to the "chukua selfie advert" I saw it on tv and I tried it, we have an NGO here that gives it to us for free." (**SSI participant,17 years old)**

> "I once had a pregnancy scare, I did not know what to do and I did want to share my story with anyone, so I used my pocket money to buy the test kit." **(SSI participant,16-year-old**)

> "Sometimes is not that we do not want to acess the service, we do not have money. We live here (Kibagare) hosi iko karibu ya gava ni Kangemi , na unacheki hiyo distance,itabidii utumie boda na labda huna hiyo 50 na huwezi omba mzazi ju hutaki ajue na hata pegine yeye hana hiyo doo." This loosely translate to, it is not that we do not want to access RHS, we do not have money to afciliated our movement. The nearest public facility is far from my location. You can't ask your parent for the money as you do not want them to or sometimes they also fo have money. (**Female FGD participants**)

The findings from key informants indicated that family economic status is significant in aiding or derailing access to and utilization of RHS among adolescents as explained in the following excerpt;

> "Adolescents from humble households find it difficult to have access to RHS. Many of them do not have financial ability to access these services and that is why organisations like us exist, to bring the services closer to them. For services that we do not offer we work hand in hand with public facilities for the same, however you can see a difference with regards to uptake. Not all of those you will refer will go to the facilities when you follow up they say they did not have the means to go all the way (**KII Participant**).

The findings tally with a study conducted in the United States of America, which found out that, socially and economically disadvantaged women are susceptible to higher unmet need for reproductive health services. Whereas, women of advantaged economic and social status have a different experience. As a result, the former are disproportionately impacted by negative reproductive health (Hall et al., 2012). A report from We-Care, Oxfam presented that many adolescents in Kibera slums find it difficult to have access and utilize RHS due to their financial constraints experienced in the informal settlement. One can therefore infer, lack of stable family income in some households derail many adolescents from utilising RHS, this is empathised by (Avuvika et al., 2017). (Nmadu et al., 2020) when assessing barriers to adolescents 'access and utilization of reproductive health services found out that the socio-economic background of the

family had a correlation with access to RHS. Adolescents mentioned transportation costs and the ability to pay for services as barriers.

4.2.3 Community Level Factors

The study sought to find out if there are norms and values that influence the uptake of reproductive health services. The findings were, there exist norms like women are not supposed to carry condoms or ask men to use condoms, it is a sign of unfaithfulness, reproductive health is not a man's affair, discussing RHS with unmarried adolescents is encouraging them to engage in sexual behaviour. Negative labelling of unmarried adolescents who utilise RHS and religious belief and practices.

> "Reproductive health services are meant for women, that is why even in hospitals when you to the section, it is filled with women." (**Male FGD participants**)
> You only get tested when you know you messed up, otherwise… (**Male FDG participant**)

> "There is the notion that unmarried adolescents have no need for RHS. Those who seek such services are labelled in the community. Adults view them as immoral yet, RHS does not always mean you are sexually active. The downside is the labelling is making a lot of young girls not adhere to medication and seek treatment when need arises" (**KII participant).**

> "There is a church person who informed parents and adolescent girls not to visit our offices as our interventions were not godly, they encouraged immorality which is against the church's belief," (**KII participant**).

From the findings of this current study it is clear the beliefs, values and norms of the community do influence uptake of reproductive health services, this is not only in the Kangemi informal settlements but also in other contexts as described in the following text. Many societies consider premarital sexual activities as unacceptable and such issues are faced with resistance hence unmarried adolescents cannot easily access contraceptive information and services. As a result,

adolescents are faced with knowledge gaps and misconception about contraceptives. For this reason, there is need to provide unmarried adolescents with correct information regarding contraceptives (Chandra-Mouli et al., 2014a).

4.3 Institutional arrangements in health facilities that determine uptake of RHS among unmarried adolescents

4.3.1 Societal factors

The study identified six institutional arrangements in healthcare facilities that determine uptake of RHS among unmarried adolescent in the study site. The six arrangements can be categorised into societal factors. These included availability of RHS, affordability and cost of RHS, inadequate healthcare facilities and providers, adolescent friendly services, public vs private healthcare facilities and standards of RHS and public health policies on RHS. These factors can be understood under the context of the two guiding theories, adolescents' needs are not prioritized hence experience challenges as they navigate their transition to adulthood as well as their development not occurring in a vacuum but rather in space where there are biological, social, economic and political factors that play a role in how they navigate their lives. These determinants are as presented and discussed below;

4.3.1.1 Availability of RHS

The study findings indicate that availability of the RHS was significant motivator for adolescents' uptake. Informants reported that in localities and health facilities where the RHS are constantly available encourage adolescents to visit such places for services. All informants narrated that RHS availability act as a major attraction for adolescents to go for the services.

"I prefer going to the NGO because they always have what I need" *(***SSI female participant,18-year-old)**

> "Huwezi rudi place yenye kila saa ukienda wanakushow hakuna this and that" You cannot visit a place where every time you visit you are informed that you are looking for is unavailable) *(***SSI female participant,16 years old).**

Unavailability of RHS act as barriers to access and uptake of the same by the adolescents in Kangemi informal settlements as informed by all study informants as demonstrated in excerpt above. Similarly, a study on sexual and reproductive health services among the adolescents in Enugu state in Nigeria established that the availability of the RHS was the number one determinant for uptake among adolescents in primary and secondary schools (Odo et al., 2018). Study Ansha et al (2017), highlighted that the lack of utilisation was due to unavailability of the services among others like unfriendly service hours, lack of confidentiality and harmful tradition. It was also unveiled through FGDs that availability of the RHS was crucial to facilitate uptake among adolescents. FGD discussants deconstructed that visiting the health facilities where the RHS are always available is significant and motivates many adolescents to utilise the RHS as detailed in the following excerpts;

> "When reproductive and health services are available at the hospital every time we go there, it is a good thing. This encourages us a lot because you are sure that you will get the services you need… you can find that many people prefer the health facilities where the RHS are available on a daily basis. Imagine going to a health facility and you are told that what you want is unavailable, then you go the next day, you are told that they have not restocked. This can make one to disappear completely or go to other health facilities" **(Male FGD participants**)

> "Sometime you need condoms and when you go to the dispensary, you will find that the dispensing box is empty. And you do not have money to buy. This is so discouraging and as you are aware, going to ask people at the hospital the whereabouts of condoms is shameful and many people fear… availability of such services are so important" (**Male FGD participants**).

This study established that the availability of the RHS was crucial for uptake among adolescents in Kangemi informal settlements. The uptake of the RHS is deeply dependent to its availability. Many studies have indicated that countries with good health care systems ensure that crucial RHS services like condoms, family planning, safe abortions, childbirth services as well as PrEPs and PEPs are available for citizens to uptake (Abraham et al., 2019; Chandra-Mouli et al., 2014b).Studies in many developing countries in Africa, Latin America and south Asia indicate that the availability of RHS is limited and act as a key barrier for RHS uptake among adolescents and the general population (Izugbara et al., 2019; Lwapa et al., 2019).

Information from key informant interviews also supported the fact that availability of the RHS is an important motivator for RHS uptake among unmarried adolescents as detailed in the following excerpt;

> "I have seen it first hand, every time an adolescent visit a centre and they do not get what they are looking for, the become discourage to visit the centres. There was a time a group of adolescents (male) reprimanded me for referring them to a centre where they said do not have what they wanted…" **(KII participant**).

(Jayaweera et al., 2018) noted that low utilization of contraceptive is as a result of frequent stock out in health facilities, fear of stigma and discrimination from health care providers on unmarried adolescents.

4.3.1.2 Affordability and Cost of RHS

It was reported during the study that affordability of RHS depended on one's income which acted to some extent as a barrier towards access and uptake of RHS services. For this case, informants expressed how they sometimes lack cash that can facilitate access and uptake of RHS like sanitary pads, condoms as well as pregnancy tests even though some facilities give for free or at less cost. This happens when the condom dispenser is empty thus requiring one to buy from either a

pharmacy, shop or a chemist. RHS affordability to the adolescents was reported to be the most important as it showed how they manoeuvre to prevent themselves from getting infected with HIV/AIDS and other STIs. This is supported by the following except;

> "There is a day I was passing by the dispensary and I thought I take advantage and get some condoms for myself from the condom dispenser. Back in my mind, I had set that, since condoms are free in the hospital, I would just pass by and get one from the dispenser. Shockingly, there was nothing in the dispenser, nilibokea (I was disappointed" **(Male FGD participant)**

Information from community health workers indicated how the presence of PrEPs at no cost boosted RHS uptake in the community. Cost is a determinant of uptake. Services like contraceptives and preventive measures towards HIV/AIDS and other STIs were free in all public healthcare facilities and reproductive health centres in Kangemi. However, there seem to be shortages or instances where some commodities were out of stock, especially in public health facilities.

> "With regards to affordability, Kangemi has no challenges. The health centres give them for free as well as the NGOs. The only challenge we have is running out of stock. Right now, as we speak we are experience a shortage of a family planning drug. We are forced to find other alternatives but you can imagine backlash from the patients. Some of them are reluctant to use the alternative. Sometimes we ask them to purchase unavailable commodities from chemist but you can always see the unwillingness from their body language. The little money the people have, they prefer to use for their day to day and not reproductive health services. As a centre we try as much as possible to restock but sometimes these things are out of our control." **(KII participant).**

Affordable RHS has been identified and stressed to be an avenue to enhance its uptake especially among developing countries. When the burden of costs of health services, especially RHS is waived, many people are able to have access and the wellness as well as wellbeing of such community is elevated. Bossick et al. (2021) elucidate that affordable RHS in Sub Saharan Africa is among the key priority the health policies should put in consideration.

4.3.1.3 Inadequate healthcare facilities and providers

Availability of healthcare facilities was identified to be crucial in uptake of reproductive health services among unmarried adolescents, this was highlighted by adolescents who seem to reside in areas that were far from health centres. Additionally, one of the key informants mentioned it as a factor that contributes to uptake of RHS. excerpt;

> "For a long time, the people of Kangemi were being served mainly Kangemi health centre and Westland health centre, there are also private centres around however the deterrent is the cost factor. The government has built a second health centre to ensure access of services to all. This centre (new health facility) will go a long way in serving people who initially had to walk a distance to receive healthcare but there is challenge, there are no staff. The building is there but the services providers are not adequate This affects the quality of service and number of people that we serve so at the end of the day they are forced to go all they to Kangemi because they are better staffed." **(KII participant).**

Additionally, limited health practitioners translate to low uptake of reproductive health services as queues become longer and sometimes not everyone will be served as the facilities do not operate 24 hours for RHS. When people are queue for services that in itself interferes with confidentiality and privacy of the health seekers. This is as explained in the following excerpt;

> "I want when I go for the services (reproductive health services) I am the only one. I do not want other people to see me. When I go and fine a long line(queue) I go away and plan for another visit. What if I meet with someone who I know there?" **(SSI male participant,16 years old).**

> "We love the idea of the condom dispenser, I do not have to make a line, I just pass by the dispenser, quickly take what I want(condoms) and leave, it also has no pressure of explaining to someone what I want." ***(*Male FGD participant*)***

Just like any other product or service, RHS require human agency to meet the desired purpose. The presence and number of healthcare workers in a given facility can determine the rate of uptake of RHS. It was discussed by Nagendra et al. (2020) that healthcare workers are key people to make sure that clients get RHS services including drugs and as well as guiding and counselling sessions.

The facilities that have limited healthcare workers find it hard to meet clients' needs hence lowering the rate of RHS uptake (Ussher et al., 2018).

4.3.1.4 Adolescent friendly services

The study found that adolescent friendly services are crucial when dealing with reproductive health services. Adolescent friendly services like privacy, confidentiality, non-judgmental attitude, skilled personnel and relatively younger service providers play a major role in determining uptake of reproductive health services. This is detailed by the excerpt below;

> "With adolescents, branding and packaging is important. The services need to be appealing for them to utilize them. You start from simple things like TV in the centre, color of the space, accessibility and also having staff who can relate with the adolescents. In my own opinion they tend to prefer younger staff compared to the older staff, may they feel they are in a position to understand them better. Such an environment encourages the adolescents in the uptake of services and also refers to their peers because they love the service." (**KII participant**)

> "No one wants to go to a place where they feel like they are being looked at badly. You want a place where they are open, how they talk to you and even have water for you to drink. I also love it when there is TV or magazines that can keep you busy as you get served." (**Male FGD participant**).

> "I can't go to a place where they will be shouting your name and also some hospitals there are many people near the doctor so you don't feel comfortable while you are talking to the doctor. Some facilities everyone can see that you are from the family planning room and it makes you feel embarrassed." (**SSI female participant,18 years**).

Discussions from male FGD echoed that having adolescent friendly services within the communities enhance the uptake of RHS among unmarried adolescents. This is as discussed in the following excerpt;

> "Ni rahisi kwenda place unafeel welcomed na place atleast si open yani ukienda ama ukitoka si rahisi watu wengine wakuone. Mimi leo nikiulizwa ningesema hizi places zikuwe separate from place wamama hupeleka watoi clinic. Hosi mob nimeenda za kanjo places huwa karibu na clinics za wamathe na watoi. Ujue unaweza patana hapo na jirani

> wenu halafu akuseti kwa mamako saizo labda wewe ulikuwa umeenda counselling na si hata kuchukua pills. Lakini ukionekana hapo, kwisha. Kila mtu atajua uko kwa family..." It is easier to go to a place where you feel welcome and not in public. I was asked and recommend that spaces that provide RHS be separate from maternal clinics, many hospitals I have visited have these spaces as one. You can bump into your neighbour who can tell on you yet you had gone for counselling and not for contraceptives. Unfortunately, the moment you are seen there, you are doomed. Everyone will know you are using family planning… (**Female FGD participants).**

A study carried out by Pandey et al. (2019), adolescents require RHS services that are friendly and easy to have access to both the services and knowledge. Many of the health facilities in Sub Saharan Africa especially in informal setting are yet to achieve sustainable health care for all people. In this case, services that are given priorities are those targeting vulnerable groups like pregnant mothers, young children, the aged and people with disabilities. Adolescents and youths are forgotten in the healthcare value chain especially on RHS (Awang et al., 2019). The findings of this study concur with finding from a study conducted in various parts of Kenya; Nairobi, Meru central, Kirinyaga and Laikipia that was looking into adolescents' perception on reproductive health services and concluded that barriers to uptake of RH services were; unfriendly health service provider, long queues, bureaucracy, male adolescent felt that the centre were women and children friendly hence no space for them (Godia et al., 2014). To further emphasise the importance on adolescent friendly services, study in Bangladesh that was looking into Utilisation of STI treatment services among unmarried female adolescents concluded, unmarried adolescents may be drawn to locations that provide high levels of confidentiality compared to places that offer quality service, (Kabir et al., 2015).

The study findings designate that health workers attitudes determines if an unmarried adolescent will continue with RH services from a certain dispensary or even quit to another or be discouraged to ever seek the services. The study participants all agreed that the reception and treatment they receive from facility staff matters to them a great deal. This is elaborated in the following excerpt;

> "As health workers we have different beliefs and they do play out in how we related with our patients. Having said that, it is up to all of us to ensure we provide the necessary services that patients require regardless of our beliefs. There are staff who find it difficult to serve unmarried adolescents when they seek reproductive health services. For me I find this unfair and I encourage my team members to be accommodating because whether we like or not these things are happening (sexual activities among unmarried adolescents). Personally, I have made it my business that none of the adolescents are discriminated with this facility." **(KII Participant)**

The study participants seem to have had negative experiences from some health workers as demonstrated below;

> "I got discouraged one day because this nurse looked at me with bad eyes, as if seeking contraceptive was bad." (**SSI female participant,18-year-old**).

> "During one of my visits to the hospital I heard the staff say how children of today know a lot of things that they should not know. I ended up going home without receiving any services for fear of being judged." (**SSI female participant ,17-year-old**).

Study informants reported to be satisfied as the recipient of RHS where they felt free to interact with the healthcare workers. Interaction comes in terms of attitude and how the serves will be offered. This is evidenced in the excerpt below;

> "We prefer NGOs, one they have people who are young and you feel understood. Also, they are never in a hurry, you can ask as many questions as you can. They always have what you need. They are friendly, si rahisi upate mtu na attitude (they rarely have a negative attitude). They also offer counselling and trainings." ***(Female FGD participants***).

A similar qualitative study conducted in Cape Town to determine healthcare workers' beliefs, motivations, efforts and behaviours affecting adequate provision of sexual and reproductive healthcare services to adolescents indicated that the healthcare workers are significant in encouraging and/or discouraging adolescents to use RHS (Jonas et al., 2018). Therefore, the attitudes displayed by those offering RHS is a critical determinant to uptake of RHS. Given that RHS tend to be private matters in many communities many adolescents would prefer to go to a health facility that seem to have accommodating staff (Challa et al., 2017). (Jayaweera et al., 2018)

echoes this, low utilization of contraceptive is as a result of frequent stock out in health facilities, fear of stigma and discrimination from health care providers on unmarried adolescents.

4.3.1.5 Public vs Private healthcare facilities and standards of RHS

Study findings indicated that reproductive health services at the private facilities were more convenient than in public facilities. This is because there are a lot of private facilities that have mushroomed in the informal settlements and the queues are not long. However, according to the study participants, they come with risks and it is up to the individual to figure it out. The facilities are costly and lack privacy as they are at the centre of their community and majority are single rooms which have been partitioned using ply wood. Additionally, participants mentioned that most facilities only have one or two practitioners who serve all patients regardless of their ailments.

> "Ukilinganisha an hosi za kanjo, private ziko karibu na sisi, shida ni wao hucharge kila kitu. Kitu utapata kwa gova free or even kwa NGO wao watakulipisha.Mara mob unapata wasee wanaenda kwa private kama kimeumana." Compared to public facilities, private ones nearer to us the only concern is they will charge for every service. What is free in public facilities or in NGOs for private hospitals you will have to pay. People visit private hospital as the end result. (**Female FGD participant).**

> "Sometimes there is a lot of congestion in the public hospitals unlike the private ones where there is no congestion. For those with money they will prefer going to private hospitals. In the private hospitals, you find that, services like waiting hours are minimal unlike public health facilities" **(KII participant).**

> "Private hospitals ni poa but si hizi za mtaa. Hizi hakuna siri. Kwanza ujue ziko kwa mlango halafu the room ziko divided na ply wood. Na huwezi tibiwa bila pesa." Private hospitals are good but not the ones within the community. They lack privacy and the rooms are portioned by ply wood. ***(One* on one participant***).***

Another participant mentioned that, the private facilities lack specialized practitioners which can be harmful to patients;

> "Private facilities are in the business of making money, as long as you visit them they will treat you, some of the do not have knowledge and or skills to treat a reproductive health

> conditions but they will still go ahead and treat a patient. The same staff will treat dental issues among other ailments. I find this risky…" **(KII participant).**

The participants further narrated that unlike private hospitals, public hospitals have better infrastructure. Public hospitals have a number of departments which offer services to the community members in a way that accords privacy. The rooms in public hospitals are concrete and somewhat sound proof. The following except elaborates further;

> "In as much the public centres are not that hidden, at least when you are in the doctor's office you cannot be heard from outside not unless you have not closed the door. All public hospitals are made concrete and have several rooms and many doctors" *(***SSI female participant ,16 years old***).*

Sometimes people prefer private hospitals due to their unrestricted services, this explained as follows;

> **Female FGD participants**: "There are services that you cannot get in public hospitals."
> **Interviewer**: Services like?
> **FGD participants**: giggling and murmurs
> **Interviewer**: can someone kindly explain…
> **Female FGD participants**: when girls get unwanted pregnancies the go to private clinics for abortion, we have never heard anyone who went to public hospitals.

The findings of this study contradict with a study in Pakistan that compared private and public healthcare facilities in offering RHS, it indicated that, private facilities were known to offer good and high standards RHS despite that fact that the services were being bought by the clients. On the other hand, public healthcare facilities had many gaps and defaulting clients because of the relatively poor RHS that people got (Michael et al., 2020). This contradiction could be as a result of context, the private hospitals in this study are based in the informal settlement of Kangemi.

4.3.1.6 Public health policies on reproductive health services

During literature review, it was evident that Kenya has a robust and favourable legal and policy framework to ensure that adolescents have access to reproductive health services. However, during the study, there seem to be a disconnect between what is in the various policies and the actual practice. The healthcare providers who participated in the research were not aware of the National Adolescent Sexual and Reproductive Health Policy (2015) apart from one. Their awareness was out of their own personal initiative. They also mentioned, it is not a major reference for the facilities day to operation while offering reproductive health services to adolescents.

> **Interviewer**: in your day to as you offer reproductive health services to adolescents, what is your guides you as a facility?
> **KII participant**: We do not have something that guide us. We offer the services based on the knowledge we have gained from school as well as during our career
> **Interviewer**: Are you aware of the National Adolescent Sexual and Reproductive Health Policy (2015)?
> **KII**: Yes, I am.
> **Interviewer**: How did you know about it?
> **KII**: I am student and itis something that I was introduced to in school, I gained interest and I can say that I am familiar with it. It is a good document, unfortunately it not popular here, we do not implement it proactively.

Another KII had this to say;

> "Policies are good because they ensure proper running of things. For instance, the adolescent's policy you are mentioning. It is a good tool that will help us overcome some of this challenge we are experiencing. If the Policies are implemented, we will as a country prioritize the reproductive health of adolescents and even allocate funds for several activities. Issues like running out of stock will unheard of. Budgetary allocation will help us stop relying on the western world. Most of the services we offer are funded by external. This project does not last forever, they come to an end and we are left hanging. So, if we implement some of this policy will have better health cate system that caters for the adolescents especially the vulnerable ones. Those who cannot to pay for these services" **(KII Participant).**

In their systematic review on assessing youth-friendly sexual and reproductive health services, Mazur et al. (2018) unveiled developing healthcare policies that enhance adolescents and youth to

have access and use reproductive health services is crucial. The authors explained that many adolescents are at the risk of getting STIs including HIV/AIDS and having supporting systems at health care facilities can prevent many of such cases. In Kenya, ministry of health has tried to ensure that many adolescents as well as the general population have access to basic RHS like family planning methods, free condoms and antenatal services as well as counselling sessions (Mutea et al., 2020).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study aimed to assess the uptake of RHS among unmarried adolescents in Kangemi informal settlements. The specific focus was to identify the socio-economic characteristics and highlight institutional arrangements that influence uptake of reproductive health services. The study was guided by sociological theory of adolescence and contemporary theory of adolescence. This section therefore, presents the summary of findings, conclusions and recommendations.

5.2 Summary of the Findings

5.2.1 Socio-economic characteristics that influence of uptake of RHS by unmarried adolescents

It was established that uptake of the RHS by unmarried adolescents is influenced by an interplay of various factors which can be grouped into either individual, relational, community and societal level. At the individual level, factors like age, sex and gender, knowledge and education, having a child, fear of stigma and embarrassment were among the key factors of uptake of RHS by adolescents.

It was determined that older adolescents of ages 16-19 years old had more knowledge and experience when it comes to RHS uptake as compared to adolescents below the age of 16 years, however, this was also dependent on their level of education. 16-year-olds in primary school were more likely not to be knowledgeable on RHS and utilization. It was also determined that sex and gender was a key factor in utilization of RHS among unmarried adolescents. For instance, it was established that girls due to biological make up are susceptible to reproductive health challenges like yeast infection, urinary tract infection hence they need to seek medical attention failure to which the infections worsen. For this reason, girls ended up utilizing getting tested for HIV and

accessing other RHS. Boys on the other hand hardly utilize RHS and when they do they seek services like condoms and when they have STIs or are testing for HIV. In addition, the study findings indicate that unmarried adolescents who have a child(ren) are more likely to utilise RHS compared to those who are childless. This was attributed to the fact that they know better, they learnt from their previous experience. From this one can deduce, unmarried adolescents in Kangemi informal settlement do not utilize service as a preventative measure rather as curative measure.

Participants with higher level of education were reported to using RHS as compared to those who had lower levels or lack formal education. Knowledge and level of education was essential in that, those who had completed secondary schools and those in tertiary education were reported to have good knowledge of RHS and have utilized RHS frequently. On the other hand, primary education reported to have minimal interaction with RHS information and consequently utilization.

Fear of stigma and embarrassment was two pronged; on one hand it acted as a barrier, adolescent shy away from utilizing RHS for fear of being labelled by others once known they utilize services on the other hand to avoid the shame that comes with being pregnant or repercussions of irresponsible sexual behaviour adolescents would utilize the services to protect themselves.

The study unravelled that peers and families play a role in uptake of RHS among unmarried adolescents. They either encourage use or discourage. Peer and parents discuss myths and misconceptions about RHS. These misconceptions are normally against use of RHS. Furthermore, some parents due to fear of shame take their children(girls) to health centres for reproductive health services, particularly contraceptives. They do this to ensure that they children do not get pregnant and ‘embarrass’ them.

Family socio-economic status on the use of RHS by adolescents were grouped into two categories perceived as enablers and constraints. In this case family economic status was a determinant which could enhance or hinder adolescents to have access to RHS. Participants from nuclear families, both or one parent had source of income, seemed to have higher uptake compared to those from families with unstable income and live with single parent. Additionally, participants from families with television, radio and smartphone demonstrated higher knowledge and utilization of reproductive health services compared to those without the mentioned electronics.

The study suggests there are norms and values perpetuated at the community level that influence the uptake of reproductive health services among the unmarried adolescents. During the study, it was discussed that adolescents and especially females who were known to be utilising RHS were labelled as ‘spoilt’ and other adolescents would be discouraged from associating with them. Use of condom was perceived as a sign of unfaithfulness, in addition, reproductive health was viewed as female concern. This therefore put a lot of burden on the female when it comes to practising responsible sexual and health seeking behaviour and the males not having access to RHS.

5.2.2 Institutional arrangements s in healthcare facilities that influence uptake of RHS by unmarried adolescents in Kangemi informal settlement

The second study objective was to highlight institutional arrangement in health care facilities that influence uptake of RHS by adolescents. The study highlighted six institutional determinants which include; availability of RHS; affordability and cost of RHS, inadequate healthcare facilities and providers, adolescent friendly services; public vs private healthcare facilities and standards of RHS and public health policies on reproductive health services.

The study established that in localities and facilities where the RHS are consistently available, like NGOs, the unmarried adolescents were motivated to visit such places for services which translates to higher uptake services. Besides, RHS availability was a major attraction for adolescents to refer their peers go for the services if the source is reliable. Contrary, unavailability of RHS act as barriers to access and uptake of the RHS by the adolescents.

Affordability of RHS depended on one's income which acted in many cases as a barrier to access and uptake of RHS services. For the free RHS like condoms, family planning and Preps, that were offered in public health facilities and in NGOs many adolescents reported using the services, despite private hospitals offering the services and being nearer, majority of the participants stated that they preferred visiting spaces where the services were free. The study also established that limited healthcare facilities and service providers act as barriers to access and uptake of RHS by adolescents. Lack of adolescents' friendly services was displayed as key barrier to access and uptake of RHS. Many adolescents would prefer health facilities that offer friendly RHS. Health workers' attitudes determine whether an unmarried adolescent will uptake RH services from a certain dispensary or opt for other health facilities or boycott the service.

Comparing the public and private healthcare facilities and standards of reproductive health services, it was established that, private hospitals were of lower standards in regard to RHS compared to public facilities. One advantage of the private facilities was, they are closer to the unmarried adolescent however this was also cited a challenged to lack of privacy. Unmarried adolescents avoided private facilities due cost related issues. KII also mentioned that some private practitioners may not be qualified to offer reproductive health services. It was also clear that a number of health practitioners are not familiar with the policies that guide reproductive health among adolescents. The policies are favourable and if implemented it would ease the challenges

experienced in ensuring unmarried adolescent in the informal settlement of Kangemi have access to quality RHS. This therefore means that there is need to cascade information and have a participatory approach while creating policies, to avoid a situation where those are meant to implement are not aware of the existence of policies that guide their roles.

5.3 Conclusions

Reproductive health services are crucial for unmarried adolescents to prevent them from adverse reproductive health outcomes. In Kangemi informal settlements, there are a number of health facilities both public and private that offer RHS to this priority group. Some of the facilities charge for the services while others offer the services free of charge. Despite the accessibility of the services, the uptake varies depending on the type of service. Based on what the study was looking into, uptake of STI services were at 36. %, contraceptive was at 70% and HIV testing was at 83 % among unmarried adolescents in this research study. Uptake rate of RHS by unmarried adolescents is influenced by interplay of individual level, relational, community as well as societal level factors.

Access to RHS can be deterred or enhanced by the level of knowledge on RHS that adolescents have. Therefore, education and awareness act as key determinants of RHS uptake among adolescents. It can be noted that the level of education is directly proportional with uptake of RHS by the adolescents. Information about RHS is shared at healthcare facilities, schools and social spaces like, community social halls among others. It is also important to note that family economic and social status facilitate RHS because families with relatively high resources will indirectly create an enabling environment for the unmarried adolescent to have access to information and increase uptake of RHS. Peers play a role in uptake as they do referrals for services as well depending on their take on utilisation of RHS an unmarried adolescent might or might not utilise

the services. For parents, depending on their awareness of RHS they might encourage or discourage utilisation. Unmarried adolescents with children or a child have a higher likelihood of RHS utilisation compared to those without children, this is because they know the consequence of lack of uptake of RHS. There exist communal norms and values that discourage use of RHS among unmarried adolescents, the norms and values tend to have major consequences on the reproductive health of the adolescents. Females more than males have a higher uptake of RHS because of biological differences and the current situation where majority of RHS are custom made for females. However, many adolescents are fearful to go for RHS in a health facility where they feel they will be judged and met with negative attitude by the personnel. The availability of RHS is a major and primary determinant for adolescents to uptake reproductive health services, availability creates a sense of reliability among the unmarried adolescents. Additionally, having qualified personnel that resonates with unmarried adolescents increases the chances of them utilizing the services. Affordability of RHS is a major concern for unmarried adolescents in Kangemi informal settlement, therefore, if a facility charges for such service there is the likelihood of the target group not utilising the services. Contrary to the belief that private facilities offer better services, for Kangemi, the study indicated that this is not the case, public facilities have better infrastructure from qualified personnel to confidential rooms as well as affordability of services. With regards to policies, it is important to note that Kenya has existing legal and policy framework that should regulate reproductive health services for adolescents however the main impediment is lack of proper implementation of the laws as well lack of representative participation in the formulation of the policies and regulations. Full implementation of the policy will lead to increased uptake of reproductive health services among adolescents.

5.4 Recommendations

From the study findings and discussions, it is my pleasure to recommend the following;

1. Review of the implementation of the Adolescents Sexual and Reproductive Health Policy to highlight areas of learning and consequently improve on the identified areas, including but not limited to sensitization of health care personnel on the National Adolescent Sexual and Reproductive Health Policy.
2. The county government should strengthen knowledge and skills of community healthcare volunteers on adolescents' reproductive health to ensure accurate RHS information and relevant services are cascaded to reach parents and adolescents who may not have access to health facilities.
3. The county government through ministry of health to consider public private partnership through enhancing the capacity of private health facilities personnel in provision of RHS given their proximity to the target group
4. Future researchers should look into what makes parents not appreciate the changing social circumstances in relation to uptake of reproductive health services and adolescents right to reproductive health services

REFERENCES

Abajobir, A. A., & Seme, A. (2014). Reproductive health knowledge and services utilization among rural adolescents in east Gojjam zone, Ethiopia: A community-based cross-sectional study. *BMC Health Services Research*, *14*(1). https://doi.org/10.1186/1472-6963-14-138

Abraham, G., Yitbarek, K., & Morankar, S. N. (2019). Determinants of adolescents reproductive health service utilization in Ethiopia: a systematic review of quantitative evidence. *Adolescent Health, Medicine and Therapeutics*, *10*, 49. https://doi.org/10.2147/AHMT.S193219

Adegun, P. T., & Amu, E. O. (2017). Prevalence and health care seeking behaviour for sexually transmitted infections among in-school adolescents in Ado-Ekiti, South-Western Nigeria. *International Journal of Adolescent Medicine and Health*, *29*(6). https://doi.org/10.1515/ijamh-2016-0011

Alhassan, R. K., Abdul-Fatawu, A., Adzimah-Yeboah, B., Nyaledzigbor, W., Agana, S., & Mwini-Nyaledzigbor, P. P. (2019). Determinants of use of mobile phones for sexually transmitted infections (STIs) education and prevention among adolescents and young adult population in Ghana: Implications of public health policy and interventions design. *Reproductive Health*, *16*(1), 1–11. https://doi.org/10.1186/S12978-019-0763-0/TABLES/2

Aliyu, A., Dahiru, T., Ladan, A., Shehu, A., Oyefabi, A., Yahaya, S., & Abubakar, A. (2013). Knowledge, Sources of information, and Risk Factors for Sexually Transmitted Infections among Secondary School Youth in Zaria, Northern Nigeria. *Journal of Medicine in the Tropics*, *15*(2), 102. https://doi.org/10.4103/2276-7096.123582

Ansha, M. G., Bosho, C. J., & Jaleta, F. T. (2017). Reproductive Health Services Utilization and Associated Factors Among Adolescents in Anchar District, East Ethiopia. *Journal of Family & Reproductive Health*, *11*(2), 110–118.

Avuvika, E., Masese, L. N., Wanje, G., Wanyonyi, J., Nyaribo, B., Omoni, G., Baghazal, A., &

McClelland, R. S. (2017). Barriers and Facilitators of Screening for Sexually Transmitted Infections in Adolescent Girls and Young Women in Mombasa, Kenya: A Qualitative Study. *PLOS ONE*, *12*(1), e0169388. https://doi.org/10.1371/journal.pone.0169388

Awang, H., Ab Rahman, A., Sukeri, S., Hashim, N., & Nik Abdul Rashid, N. R. (2019). Adolescent-friendly health services in primary healthcare facilities in Malaysia and its correlation with adolescent satisfaction level. *Http://Mc.Manuscriptcentral.Com/Rady*, *25*(1), 551–561. https://doi.org/10.1080/02673843.2019.1685556

Ayehu, A., Kassaw, T., & Hailu, G. (2016). Level of young people sexual and reproductive health service utilization and its associated factors among young people in Awabel District, Northwest Ethiopia. *PLoS ONE*, *11*(3). https://doi.org/10.1371/journal.pone.0151613

Bossick, A. S., Brown, J., Hanna, A., Parrish, C., Williams, E. C., & Katon, J. G. (2021). Impact of State-Level Reproductive Health Legislation on Access to and Use of Reproductive Health Services and Reproductive Health Outcomes: A Systematic Scoping Review in the Affordable Care Act Era. *Women's Health Issues*, *31*(2), 114–121. https://doi.org/10.1016/J.WHI.2020.11.005

Bwalya, B. N., & Kusanthan, T. (2018). Gender Differential in Access to and Utilisation of Reproductive Health Services among Adolescents in Lusaka. *International Journal of Contemporary Research and Review*, *9*(04), 20416–20429. https://doi.org/10.15520/ijcrr/2018/9/04/492

Challa, S., Manu, A., Morhe, E., Dalton, V. K., Loll, D., Dozier, J., Zochowski, M. K., Boakye, A., Adanu, R., & Hall, K. S. (2017). Multiple levels of social influence on adolescent sexual and reproductive health decision-making and behaviors in Ghana. *Https://Doi.Org/10.1080/03630242.2017.1306607*, *58*(4), 434–450.

https://doi.org/10.1080/03630242.2017.1306607

Chandra-Mouli, V., McCarraher, D. R., Phillips, S. J., Williamson, N. E., & Hainsworth, G. (2014). Contraception for adolescents in low and middle income countries: Needs, barriers, and access. In *Reproductive Health* (Vol. 11, Issue 1). https://doi.org/10.1186/1742-4755-11-1

Charlton, B. M., Hatzenbuehler, M. L., Jun, H. J., Sarda, V., Gordon, A. R., Raifman, J. R. G., & Austin, S. B. (2019). Structural stigma and sexual orientation-related reproductive health disparities in a longitudinal cohort study of female adolescents. *Journal of Adolescence*, *74*(C), 183–187. https://doi.org/10.1016/J.ADOLESCENCE.2019.06.008

Chimphamba Gombachika, B., Fjeld, H., Chirwa, E., Sundby, J., Malata, A., & Maluwa, A. (2012). A Social Ecological Approach to Exploring Barriers to Accessing Sexual and Reproductive Health Services among Couples Living with HIV in Southern Malawi. *ISRN Public Health*, *2012*, 1–13. https://doi.org/10.5402/2012/825459

Cortez, R., Saadat, S., Marinda, E., & Oluwole, O. (2015). *ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH IN NIGERIA Health, Nutrition and Population Global Practice Knowledge Brief*.

Crossland, N., Hadden, W. C., Vargas, W. E., Valadez, J. J., & Jeffery, C. (2015). Sexual and reproductive health among Ugandan youth: 2003-04 to 2012. *Journal of Adolescent Health*, *57*(4), 393–398. https://doi.org/10.1016/j.jadohealth.2015.06.015

Devers, K. J., & Frankel, R. M. (2000). Study Design in Qualitative Research-2: Sampling and Data Collection Strategies. *Education for Health*, *13*(2), 263–271.

Dulock, H. L. (1993). Research Design: Descriptive Research. *Journal of Pediatric Oncology Nursing*, *10*(4), 154–157. https://doi.org/10.1177/104345429301000406

Embleton, L., Wachira, J., Kamanda, A., Naanyu, V., Ayuku, D., & Braitstein, P. (2016). Eating sweets without the wrapper: perceptions of HIV and sexually transmitted infections among street youth in western Kenya. *Culture, Health and Sexuality*, *18*(3), 337–348. https://doi.org/10.1080/13691058.2015.1082626

Fotso, J. C., & Mukiira, C. (2011). Perceived quality of and access to care among poor urban women in Kenya and their utilization of delivery care: harnessing the potential of private clinics? KEY MESSAGES. *Health Policy and Planning*, *27*, 505–515. https://doi.org/10.1093/heapol/czr074

Frost, J. J., Lindberg, L. D., & Finer, L. B. (2012). Young Adults' Contraceptive Knowledge, Norms and Attitudes: Associations with Risk Of Unintended Pregnancy. *Perspectives on Sexual and Reproductive Health*, *44*(2), 107–116. https://doi.org/10.1363/4410712

Ghebreyesus, T. A., & Kanem, N. (2018). Defining sexual and reproductive health and rights for all. *The Lancet*, *391*(10140), 2583–2585. https://doi.org/10.1016/S0140-6736(18)30901-2

Godia, P. M., Olenja, J. M., Hofman, J. J., & Van Den Broek, N. (2014). Young people's perception of sexual and reproductive health services in Kenya. *BMC Health Services Research*, *14*(1), 1–13. https://doi.org/10.1186/1472-6963-14-172

Guttmacher. (2019). *In Kenya, Reproductive Health Services Fall Short of Adolescents' Needs | Guttmacher Institute*.

Hall, K. S., Moreau, C., & Trussell, J. (2012). Determinants of and disparities in reproductive health service use among adolescent and young adult women in the United States, 2002-2008. *American Journal of Public Health*, *102*(2), 359–367. https://doi.org/10.2105/AJPH.2011.300380

Isaacs, A. (2014). An overview of qualitative research methodology for public health researchers.

International Journal of Medicine and Public Health, *4*(4), 318. https://doi.org/10.4103/2230-8598.144055

Izugbara, C., Wekesah, F. M., Sebany, M., Echoka, E., Amo-Adjei, J., & Muga, W. (2019). Availability, accessibility and utilization of post-abortion care in Sub-Saharan Africa: A systematic review. *Https://Doi.Org/10.1080/07399332.2019.1703991*, *41*(7), 732–760. https://doi.org/10.1080/07399332.2019.1703991

Jayaweera, R. T., Ngui, F. M., Hall, K. S., & Gerdts, C. (2018). Women's experiences with unplanned pregnancy and abortion in Kenya: A qualitative study. *PLoS ONE*, *13*(1). https://doi.org/10.1371/journal.pone.0191412

Jonas, K., Crutzen, R., Krumeich, A., Roman, N., Van Den Borne, B., & Reddy, P. (2018). Healthcare workers' beliefs, motivations and behaviours affecting adequate provision of sexual and reproductive healthcare services to adolescents in Cape Town, South Africa: A qualitative study. *BMC Health Services Research*, *18*(1), 1–13. https://doi.org/10.1186/S12913-018-2917-0/FIGURES/1

Kabir, H., Saha, N. C., & Gazi, R. (2015). Female unmarried adolescents' knowledge on selected reproductive health issues in two low performing areas of Bangladesh: An evaluation study. *BMC Public Health*. https://doi.org/10.1186/s12889-015-2597-1

Kassa, G. M., Arowojolu, A. O., Odukogbe, A. A., & Yalew, A. W. (2018). Prevalence and determinants of adolescent pregnancy in Africa: A systematic review and Meta-analysis 11 Medical and Health Sciences 1117 Public Health and Health Services. *Reproductive Health*, *15*(1), 1–17. https://doi.org/10.1186/S12978-018-0640-2/FIGURES/6

KNBS. (2019). *2019 KENYA POPULATION AND HOUSING CENSUS Volume III: Distribution of Population by Age and Sex*.

Kriel, Y., Milford, C., Cordero, J., Suleman, F., Beksinska, M., Steyn, P., & Smit, J. A. (2019). Male partner influence on family planning and contraceptive use: Perspectives from community members and healthcare providers in KwaZulu-Natal, South Africa. *Reproductive Health*, *16*(1). https://doi.org/10.1186/s12978-019-0749-y

Kumar, S., Quinn, S. C., Kim, K. H., Musa, D., Hilyard, K. M., & Freimuth, V. S. (2012). The social ecological model as a framework for determinants of 2009 H1N1 influenza vaccine uptake in the United States. *Health Education and Behavior*, *39*(2), 229–243. https://doi.org/10.1177/1090198111415105

Kyilleh, J. M., Tabong, P. T. N., & Konlaan, B. B. (2018). Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: A qualitative study in the West Gonja District in Northern region, Ghana. *BMC International Health and Human Rights*. https://doi.org/10.1186/s12914-018-0147-5

Lakshminarayanan, R. (2003). Decentralisation and its Implications for Reproductive Health: The Philippines Experience. *Reproductive Health Matters*, *11*(21), 96–107. https://doi.org/10.1016/S0968-8080(03)02168-2

Lim, M. S. C., Zhang, X. D., Kennedy, E., Li, Y., Yang, Y., Li, L., Li, Y. X., Temmerman, M., & Luchters, S. (2015). Sexual and reproductive health knowledge, contraception uptake, and factors associated with unmet need for modern contraception among adolescent female sex workers in China. *PLoS ONE*, *10*(1). https://doi.org/10.1371/journal.pone.0115435

Logie, C. H., Okumu, M., Mwima, S. P., Kyambadde, P., Hakiza, R., Kibathi, I. P., Kironde, E., Musinguzi, J., & Kipenda, C. U. (2019). Exploring associations between adolescent sexual and reproductive health stigma and HIV testing awareness and uptake among urban refugee and displaced youth in Kampala, Uganda.

Https://Doi.Org/10.1080/26410397.2019.1695380, *27*(3), 86–106. https://doi.org/10.1080/26410397.2019.1695380

London Summit on Family Planning: Summaries of commitments. (2012).

Lwapa, F. E. I., Masumu, J. M., Matala, F. M., Mukoko, F. N., Mbao, V., Moula, N., & Antoine-Moussiaux, N. (2019). Participatory assessment of paid vaccination campaigns for village chickens against Newcastle disease in Kongo Central province. *Preventive Veterinary Medicine*, *172*, 104783. https://doi.org/10.1016/J.PREVETMED.2019.104783

Malmi, A. (2016). *Adolescent Sexual and Reproductive Health and Rights (Srhr) in Informal Urban Settlements :*

Marston, M., Beguy, D., Kabiru, C., & Cleland, J. (2013). Predictors of sexual debut among young adolescents in Nairobi's informal settlements. *International Perspectives on Sexual and Reproductive Health*, *39*(1), 22–31. https://doi.org/10.1363/3902213

Mazur, A., Brindis, C. D., & Decker, M. J. (2018). Assessing youth-friendly sexual and reproductive health services: A systematic review. *BMC Health Services Research*, *18*(1), 1–12. https://doi.org/10.1186/S12913-018-2982-4/TABLES/3

Mbugua, S. M., & Karonjo, J. M. (2018). Reproductive health knowledge among college students in Kenya. *BMC Public Health*, *18*(1), 907. https://doi.org/10.1186/s12889-018-5760-7

Melesse, D. Y., Mutua, M. K., Choudhury, A., Wado, Y. D., Faye, C. M., Neal, S., & Boerma, T. (2020). Adolescent sexual and reproductive health in sub-Saharan Africa: Who is left behind? In *BMJ Global Health* (Vol. 5, Issue 1, p. e002231). BMJ Publishing Group. https://doi.org/10.1136/bmjgh-2019-002231

Michael, J., Iqbal, Q., Haider, S., Khalid, A., Haque, N., Ishaq, R., Saleem, F., Hassali, M. A., & Bashaar, M. (2020). Knowledge and practice of adolescent females about menstruation and

menstruation hygiene visiting a public healthcare institute of Quetta, Pakistan. *BMC Women's Health*, *20*(1), 1–8. https://doi.org/10.1186/S12905-019-0874-3/TABLES/6

Miiro, G., Rutakumwa, R., Nakiyingi-Miiro, J., Nakuya, K., Musoke, S., Namakula, J., Francis, S., Torondel, B., Gibson, L. J., Ross, D. A., & Weiss, H. A. (n.d.). *Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study*. https://doi.org/10.1186/s12905-017-0502-z

Ministry of Health Kenya. (2015). National Adolescent Sexual and Reproductive Health Policy, 2015. *National Adolescent Sexual and Reproductive Health Policy*, 1–37. https://doi.org/10.1017/CBO9781107415324.004

Mohammadi, F., Kohan, S., Mostafavi, F., & Gholami, A. (2016). The Stigma of Reproductive Health Services Utilization by Unmarried Women. *Iranian Red Crescent Medical Journal*, *18*(3). https://doi.org/10.5812/IRCMJ.24231

Mohammed, M. S. (2013). *FACTORS ASSOCIATED WITH LEVEL OF REPRODUCTIVE HEALTH INFORMATION IN ETHIOPIA*.

Mumah, J., & Kabiru, C. W. (2014). Population Council Population Council Knowledge Commons Knowledge Commons. In *Reproductive Health Social and Behavioral Science Research* (Issue SBSR).

Mutea, L., Ontiri, S., Kadiri, F., Michielesen, K., & Gichangi, P. (2020). Access to information and use of adolescent sexual reproductive health services: Qualitative exploration of barriers and facilitators in Kisumu and Kakamega, Kenya. *PLOS ONE*, *15*(11), e0241985. https://doi.org/10.1371/JOURNAL.PONE.0241985

Mutua, F. M., Karonjo, J., Nyaberi, J. M., Wanyoike, P. K., Kausya, J., & Mugai, F. (2020). Socio-demographic and economic factors influencing utilization of youth friendly reproductive

health services among youths in selected universities in Nairobi County, Kenya. *International Journal Of Community Medicine And Public Health*, *7*(7), 2437. https://doi.org/10.18203/2394-6040.ijcmph20202962

Nagendra, G., Carnevale, C., Neu, N., Cohall, A., & Zucker, J. (2020). The Potential Impact and Availability of Sexual Health Services During the COVID-19 Pandemic. *Sexually Transmitted Diseases*, *47*(7), 434. https://doi.org/10.1097/OLQ.0000000000001198

Ochako, R., Mbondo, M., Aloo, S., Kaimenyi, S., Thompson, R., Temmerman, M., & Kays, M. (2015). Barriers to modern contraceptive methods uptake among young women in Kenya: A qualitative study Global Health. *BMC Public Health*, *15*(1), 118. https://doi.org/10.1186/s12889-015-1483-1

Odo, A. N., Samuel, E. S., Nwagu, E. N., Nnamani, P. O., & Atama, C. S. (2018). Sexual and reproductive health services (SRHS) for adolescents in Enugu state, Nigeria: A mixed methods approach. *BMC Health Services Research*, *18*(1), 1–12. https://doi.org/10.1186/S12913-017-2779-X/TABLES/4

Okigbo, C. C., & Speizer, I. S. (2015). Determinants of sexual activity and pregnancy among unmarried young women in urban Kenya: A cross-sectional study. *PLoS ONE*, *10*(6), e0129286. https://doi.org/10.1371/journal.pone.0129286

Oppong Asante, K. (2013). HIV/AIDS knowledge and uptake of HIV counselling and testing among undergraduate private university students in Accra, Ghana. *Reproductive Health*, *10*(1), 1–8. https://doi.org/10.1186/1742-4755-10-17

Pandey, P. L., Seale, H., & Razee, H. (2019). Exploring the factors impacting on access and acceptance of sexual and reproductive health services provided by adolescent-friendly health services in Nepal. *PLOS ONE*, *14*(8), e0220855.

https://doi.org/10.1371/JOURNAL.PONE.0220855

Pereira, H., & Carmo, A. (2014). Sexually Transmitted Diseases: Knowledge and Perceived Prevalence of Symptoms in University Students. *International STD Research & Reviews*, 01–11.

Pourkazemi, R., Janighorban, M., Boroumandfar, Z., & Mostafavi, F. (2020). A comprehensive reproductive health program for vulnerable adolescent girls. *Reproductive Health*, *17*(1). https://doi.org/10.1186/s12978-020-0866-7

Pozo, K. C., Chandra-Mouli, V., Decat, P., Nelson, E., De Meyer, S., Jaruseviciene, L., Vega, B., Segura, Z., Auquilla, N., Hagens, A., Van Braeckel, D., & Michielsen, K. (2015). Improving adolescent sexual and reproductive health in Latin America: Reflections from an International Congress. In *Reproductive Health* (Vol. 12, Issue 1, pp. 1–7). BioMed Central Ltd. https://doi.org/10.1186/1742-4755-12-11

Ritter, T., Dore, A., & McGeechan, K. (2015). Contraceptive knowledge and attitudes among 14-24-year-olds in New South Wales, Australia. *Australian and New Zealand Journal of Public Health*, *39*(3), 267–269. https://doi.org/10.1111/1753-6405.12367

Sexual & reproductive health | UNFPA - United Nations Population Fund. (2014).

Shabani, O., Moleki, M. M., & Thupayagale-Tshweneagae, G. G. B. (2018). Individual determinants associated with utilisation of sexual and reproductive health care services for HIV and AIDS prevention by male adolescents. *Curationis*, *41*(1), 1–6. https://doi.org/10.4102/curationis.v41i1.1806

Sychareun, V., Vongxay, V., Houaboun, S., Thammavongsa, V., Phummavongsa, P., Chaleunvong, K., & Durham, J. (2018). Determinants of adolescent pregnancy and access to reproductive and sexual health services for married and unmarried adolescents in rural Lao

PDR: A qualitative study. *BMC Pregnancy and Childbirth*, *18*(1), 1–12. https://doi.org/10.1186/s12884-018-1859-1

Ussher, J. M., Parton, C., & Perz, J. (2018). Need for information, honesty and respect: patient perspectives on health care professionals communication about cancer and fertility. *Reproductive Health*, *15*(1), 2. https://doi.org/10.1186/S12978-017-0441-Z/PEER-REVIEW

Violita, F., & Hadi, E. N. (2019). Determinants of adolescent reproductive health service utilization by senior high school students in Makassar, Indonesia. *BMC Public Health*, *19*(1), 1–7. https://doi.org/10.1186/S12889-019-6587-6/TABLES/5

westlands constituency map - Google Search. (n.d.).

Woog, V., Singh, S., Browne, A., & Philbin, J. (2015). Adolescent women's need for and use of sexual and reproductive health services in developing countries. *New York: Guttmacher Institute*, *August*, 1–63.

Ziraba, A., Orindi, B., Muuo, S., Floyd, S., Birdthistle, I. J., Mumah, J., Osindo, J., Njoroge, P., & Kabiru, C. W. (2018). *Understanding HIV risks among adolescent girls and young women in informal settlements of Nairobi, Kenya: Lessons for DREAMS*. https://doi.org/10.1371/journal.pone.0197479

APPENDICES

Appendix I: Informed Consent

1.Introduction

My name is Mercy Otieno, (or Allan West for the male FGD conducting this research on behalf of Mercy) Masters student in gender and development studied from the University of Nairobi. I am conducting research on "AN ASSESSMENT OF DETERMINANTS OF REPRODUCTIVE HEALTH SERVICES UPTAKE AMONG UNMARRIED ADOLESCENTS IN KANGEMI INFORMAL SETTLEMENTS". The study id interested in identifying the socioeconomic determinants of RHS uptake among unmarried adolescents and institutional factors in health care facilities that determine RHS uptake among unmarried adolescents in Kangemi informal settlements.

2.Participation

Participation in the study in voluntary, you are free to withdraw at any point of the study. All information given will be confidential, no identifying information will be required from you. If you are below the age of 18 consent from your guardian. will be required. Once the findings are out, I will share them with you. You can contact me on 0706306332.

The interview will be recorded for purposes of analysis and information will be destroyed upon completion of the research study.

There are no direct benefits associated with this participating with the researcher, however the findings will be beneficial to policy makers, program interventions as well as other researcher interested in the research topic. Should the questions be triggering for one reason or the other, please let the researcher know for them to offer you the needed support. You are encouraged to share your thoughts, opinion and experience to the level that is comfortable for you.

The interview is scheduled to take 1 hour however we will proceed with you pace.

Participant's Agreement

I voluntarily agree to participate in this study having understood the explanation provided by the researcher. I understand the information provided will only be used study and the information given will be confidential.

Sign Date

Parental Agreement

I give permission for my child to participate in this research. I understand the information provided will only be used study and the information given will be confidential.

Sign Date

Appendix-II: Semi Structured Interview Guide

Demographics

Age, sex, current relationship status, offspring, siblings, ethnic/language religion, type of family/with whom they live now, schooling received / are receiving current occupational status, income and caregiver occupational status if applicable.

Knowledge on RHS and Source

What is RH?

When did you first hear of RH

Who told you about it

Where can one access RHS?

What services are offered und RH?

Would you say you are knowledgeable on RHS?

Sexual debut

When was you first sexual encounter? Who initiated it? how did you feel about it? Did you use protection? Do you feel your first sexual encounter was controlled by you?

Sexual inexperience

What are you reasons for sexual inactivity

Risk taking behavior

How many sexual partners do you have? Do you use protection? Which methods? What influences usage? Have you ever had sex under the influence of any substance? Have you ever engaged in transactional sex?

Health seeking behavior

Have you ever visited the health centre to seek RHS?

When you visited the health centre were you ailing or you went for a checkup?

Have you ever had any STI and how did you manage the STI?

Have you ever been tested for HIV? What influenced you?

Are you on any contraceptive?

What informed you choice on the above?

What are you reasons for seeking RHS? What are your thoughts on the RHS being offered for adolescents?

Appendix-III: Focus Group Discussion Guide

1.Do adolescents have information on RHS?

2.Where do adolescents get information on RHS from?

3.Do you think adolescents should have access to RHS?

4.When is the right time for adolescent to start engaging in sexual activities?

5.What would make an adolescent not engage in sexual activities?

6.What is the most common used contraceptive among adolescents?

7.What are your thoughts on transactional sex? Who is more likely to engage in it and why?

8.What do you think of having multiple sexual partners?

Appendix-IV: Key Informants Interview Guide

Demographics

1.Position, sex, religion

2.What is you take on unmarried adolescents and reproductive health?

3.Do unmarried adolescents seek RHS in your facility?

4.Are you aware of the Adolescent Sexual and Reproductive Health Policy? Is the policy being implemented in your facility?

5.What kind of RHS services do you offer? Which of these services are more attractive to unmarried adolescents? and what are you working hours?

6.Is adolescent reproductive health privately or publicly funded in your facility?

7.Are you involved in budgeting and planning of facility services? How much funds are allocated to adolescent RHS?

8.Do you think unmarried adolescents are well informed on RH?

9.Are there any challenges to access of RHS by unmarried adolescents?

10.Are you trained on offering RHS to adolescents?