BARRIERS TO ADOLESCENTS' ACCESS AND UPTAKE OF HIV-RELATED SERVICES IN KAWANGWARE INFORMAL SETTLEMENTS, NAIROBI COUNTY

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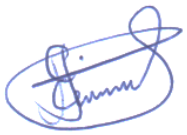
DECLARATION

This research project is my original work and has not been submitted for any award at any university.

Signature:  Date: November 13th, 2022

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

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Prof. Owuor Olungah

DEDICATION

To my parents, husband, my two sons, my daughter, siblings and all people with an interest in improving the HIV interventions among the youth and adolescents.

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First and foremost, praises and thanks to the Almighty God for His blessings throughout the research work from the beginning to the end.

I would like to express my sincere gratitude to my supervisor Prof. Owuor Olungah for giving me valuable insights and guidance throughout the research. He has taught me the proper methodology for conducting different research types and presenting the findings.

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ABBREVIATIONS AND ACRONYMS

AIDS - Acquired Immunodeficiency Syndrome

APHRC - African Population and Health Research Center

ART - Antiretroviral Therapy

BCC - Behavior Change Communication

CBO - Community-Based Organization

CIPHER - Common Information for Public Health Electronic Reporting

CSE - Comprehensive Sexuality Education

CVA - Capacities and Vulnerabilities Assessment

EGPAF - Elizabeth Glaser Pediatric AIDS Foundation

FGM -Female Genital Mutilation

HIV - Human Immunodeficiency Virus

HTC - HIV Testing and Counseling

IAS - International AIDS Society

IDUs - Injecting Drug Users

IMB - Information-Motivation-Behavior

IPPF - International Planned Parenthood Federation

KAIS - Kenya AIDS Indicator Survey

KASF - Kenya Aids Strategic Framework

KDHS - Kenya Demographic Health Survey

KEMRI - Kenya Medical Research Institute

MOE - Margin of Error

MOH - Ministry of Health

NACC - National AIDS Control Council

NACOSTI - National Commission for Science, Technology, and Innovation

NASCOP - National AIDS and STDs Control Programme

PEP - Post-Exposure Prophylaxis

PMTCT - Prevention of Mother to Child Transmission

PrEP - Pre-Exposure Prophylaxis

SPSS - Statistical Packages for the Social Sciences

SRH - Sexual Reproductive Health

SRHR - Sexual Reproductive Health and Rights

STD - Sexually Transmitted Diseases

STI - Sexually Transmitted Infections

UNAIDS - United Nations Joint Program on HIV/AIDS

UNFPA - United Nations Population Fund

UNICEF - The United Nations Children's Fund

VCT - Voluntary Counseling and Testing

WHO - World Health Organization

ABSTRACT

Although HIV Testing and counseling have been widely accepted and implemented globally, some people still experience poor access and uptake. Adolescents from informal settlements are more vulnerable to HIV infections than in other settlements. However, they are less likely to access and uptake HIV-related services due to stigma, lack of information and other competing priorities.

Drawing on data collected from informal settlements in Dagoretti North Sub-County, Nairobi County, Kenya, and the study explored the existing barriers to access and uptake of HIV-Related services. Both Quantitative and qualitative research techniques and approaches were used. The study collected data from the respondents through survey questionnaires and Key informants' interview guides. One hundred and twenty (120) respondents were interviewed in Gatina, Kabiro, and Kawangware wards. The study had 20 key informants who would provide additional and diverse perspectives based on the study objectives. Secondary data obtained through desk reviews and analysis of existing data helped in the proposal development and has been useful in the discussions of the findings.

According to the study's findings, 11.1% of respondents were ignorant of HIV/VCT services, and 74.1% of respondents did not use these services. Teenagers' attitudes have been listed as one of the obstacles to receiving HIV/VCT services and accessing them. It results from the lengthy waiting time at the facilities and the anxiety over stigma. A common barrier on the healthcare provider side of the equation is the perceptions of the healthcare professionals on matters relating to sexuality and HIV.

The study concludes that targeted interventions and properly implemented HIV-related services would encourage adolescents residing in informal settlements to seek the services and increase ingress.

1.0 BACKGROUND TO THE STUDY

1.1 Introduction

Globally, young people, including adolescents, represent a growing share of high numbers of people living with HIV. In 2018, new infections were high among adolescents and youth; to make matters worse, only 15 percent of adolescents sought HIV-related services (UNAIDS, 2019). In Africa, the access and ingress trends among adolescents have been trending downwards despite regional efforts to do the inclusivity programming for adolescents. UNAIDS (2019) states that HIV estimates and adolescent patterns are worrying. There is a need for concerted efforts to address low ingress and access to HIV-related services among adolescents.

Table 1: UNAIDS 2019 Adolescents HIV estimates

	Adolescents 10-19	**Girls 10-19**	**Boys 10-19**
Estimated number of adolescents living with HIV	1.6 million [1.1 million – 2.3 million]	970,000 [540,000 – 1.4 million]	680,000 [510,000 – 950,000]
Estimated number of adolescents newly infected with HIV	190,000 [59,000 – 380,000]	140,000 [29,000 – 280,000]	50,000 [8,600 – 120,000]
Estimated number of adolescents dying of AIDS-related causes	33,000 [22,000 – 47,000]	16,000 [10,000 – 24,000]	16,000 [12,000 – 23,000]

Source: UNAIDS 2019 estimates

The Kenya AIDS Strategic Framework (KASF) 2015 to 2019 identified adolescent boys, and girls, as a priority population for HIV interventions and response. Though the government and other development partners have made programmatic and political commitments to provide HIV services, adolescents and young people have not benefited significantly from the investments, including prevention, care, and treatment. The national HIV and AIDS prevalence

was 6%, per the Kenya AIDS Indicator Survey 2016 (NACC, 2017). In 2017, the National AIDS Control Council (NACC), in conjunction with the Ministry of Health, conducted the Kenya HIV estimates, and the estimated prevalence rates were 4.9%. In Nairobi, the national prevalence rate was 6.1%. The new infections reduced to approximately 52,800 across new ages, and adolescents accounted for 15.5% of the new infections. Besides, Nairobi is the leading county in new adolescent infections (NACC, 2018). Studies show that the prevalence of HIV in informal settlements or slums in Nairobi is higher than Kenya's national average and overall HIV prevalence in Nairobi (KNBS 2010).

AIDS-related deaths are the leading cause of death among adolescents and young people on the continent (Aggleton, Chase & Rivers, 2004). The launch of a global campaign in Kenya dubbed "All in" by H.E President Uhuru Kenyatta provided a platform for a coordinated multi-sectoral approach to reach all, including adolescents. Further, the Ministry of Health established the National Steering Committee in 2015 to fast-track HIV response among adolescents. The tasks were to coordinate new and existing initiatives, bring together development partners, enhance accountability, and track progress towards achieving the KASF goals. They included adolescents' access to HIV prevention, care, and treatment services. Though the government has put efforts into fast-tracking the gains, new infections among adolescents continue to happen (NACC, 2018).

AIDS-related deaths among adolescents continue to occur, which indicates that, although the government has been creating an enabling environment, there are structural and implementation challenges leading to low or no access to HIV and AIDS prevention, care, and treatment services. Adolescents bear the brunt of the HIV and AIDS epidemic due to lack of information or limited access to the same, limited or no access to the essential HIV services, discrimination, and sometimes stigma (Meremo, Mboya, Ngilangwa, Dulle, Tarimo, Urassa, D & Ernest, 2016). The adolescents in informal settlements experience challenges in access to

services due to the economic status of the parents or caregivers, lack of information, stigma, and in some cases, failure to understand their SRH needs (Meremo, Mboya, Ngilangwa, Dulle, Tarimo, Urassa, D & Ernest, 2016).

In the adolescence stage, young people experience a combination of psychological, social, and physical changes. At this point, the country, community, religious platforms, and families struggle to prepare them with the knowledge and skills to adapt to challenging situations and exploit their potential. During the transition from childhood to adulthood, adolescents take it as a time of navigating and exploring peer relationships, sexuality, gender norms, and economic responsibility. There is an increase in vulnerability due to diminished autonomy, developmental stages and changes, lack of proper information, and lack of legal safeguards. Examples of legal challenges include consensual sex, the legal age of consent, and obligations to report neglect or abuse (Hensel, 2019). Failure to support adolescents in this stage exposes them to many issues, including HIV and AIDS infection. At the national level, Kenya has adopted the adolescent definition by WHO and UNFPA but lacks the word adolescent in all legal frameworks (NASCOP & KEMRI, 2016). In Kenyan legal documents, individuals are categorized as a child (below 18 years) or an adult (above 18 years), but despite this, there are expectations/exceptions for mature minors.

UNICEF estimates that most girls (30% to 50%) give birth to their first children before age 19, which shows an early sexual debut among adolescents (NASCOP & KEMRI, 2016). Early marriages still exist despite measures taken by the government to fight the retrogressive tradition.

As stated earlier, most adolescents are in schools, and the Ministry of Education guidelines do not allow sex education in schools. Besides, adolescents in school do not get orientation on condom use (National AIDS Control Council, 2015). In informal settlements, adolescents engage in intergenerational sex (sex between young people and older people), which is

transactional (Hensel, 2019). Adolescents are driven to have sex with older people in exchange for material support or other suppressing benefits.

Sexual violence contributes to HIV and AIDS among adolescents in Kenya (Gituathi, Kabuga, Mwavua, Kiplagat, Mugambi, Kimani, et al., 2015). Sexual and gender-based violence (SGBV) is highest among adolescents, and SGBV contributes to or increases the biological vulnerability of adolescents to HIV and AIDS. Notably, violence tends to reduce the ability of an individual to negotiate for safer sex. According to the Violence against Children report, approximately 30% of females experience sexual violence in early childhood (Gituathi et al., 2015). Consequently, this shows that 30% of young females are exposed to the risk of acquiring HIV and AIDS.

Highly mobile populations characterize Kawangware informal settlement due to internal migrations in search of employment. Kawangware also hosts hidden populations such as undocumented migrants and refugees (Majeed, 2015). The community's volatility and mobility affect factors such as access to treatment, failure for follow-up, and sometimes difficulty in reaching HIV- prevention-related information. Other factors, such as high concentrations of populations living below the poverty line, create and exacerbate the poor access and ingress of HIV-related services. The study reviewed the guidelines and strategies that support access and ingress of HIV-related services among adolescents in the Kawangware informal settlement. This study reviewed the policies and strategies utilized to improve the access and ingress of HIV prevention services among adolescents. The research has therefore, provided an impression of the status of these policies and strategies and their effectiveness in addressing the issue of HIV/AIDS infections among adolescents.

1.2 Problem Statement

In spite of the many efforts by the government and other international organizations, there have been many worries about the existing prevalence of HIV/AIDS among adolescents and the young people in general. According to UNAIDS, it is revealed that the prevalence rate is at 4.9% nationally. It has also been identified that AIDS is one of the leading causes of death among the young people in Kenya (KNBS, 2010). The major question that may linger in the minds of researchers and the health care providers that remain pertinent to this day is on the contributions made by the pre-existing and existing mitigations and measures to counter HIV/AIDS epidemic. Does this mean that efforts have never been taken to help these robust young population from diminishing? How about the notion that adolescents have to maintain the right moral conduct because they are still regarded as children? As noted earlier, most adolescent girls ranging between 30 to 50 percent deliver their first child before the age of 19 years old. This would and should shed some light on our policy makers and people fighting against the epidemic of HIV and AIDS to refocus their efforts on these young populations.

The category of teenagers living with HIV is occasionally overlooked when evaluating the barriers that prevent adolescents from receiving services for HIV testing, care, and treatment. On whether they consistently obtain HIV treatment and the necessary care programs, there is insufficient follow-up (NACC, 2015). Adolescents who were born HIV + nowadays lack the support necessary to disclose their status and receive the necessary information about their rights around SRH. Adherence to HIV treatment is crucial in optimizing health outcomes for adolescents living with HIV. However, side effects, treatment exhaustion, a lack of social support, and self-stigma cause some teenagers to quit consistently taking their HIV medications. Lack of guidance on when, how, and to whom to reveal their status is another issue. These incidents may result in anxiety, low self-esteem, and depression. In December 2014, Nairobi County acknowledged the urban challenges and signed the Paris Declaration

dubbed ‘’Ending the AIDS epidemic” (NACC, 2015). In the commitment, Nairobi is devoted to;

- Achieve the 90-90-90 HIV treatment goal ratio by 2020 and put individuals, including adolescents, at the heart of the AIDS response.
- Take steps to address risk, vulnerability, and transmission causes.

Nairobi County collaborated with UNAIDS and other development partners to create a road map that was in keeping with the County's strategic plan after signing the declaration. The road map comprises four key work streams that are intended to accomplish the declaration's objectives.

They include scaling up and improving what’s working, finding innovations in delivering programmes, data collection, and managing available resources effectively. To understand what’s working, the county aimed at reaching more adolescents (NACC, 2015). Despite the effort by the County to reach adolescents, considerable data gaps on HIV among adolescents exist due to challenges such as getting approval/consent to participate in the survey, lack of age-appropriate questions because a significant percentage of adolescents are in schools and a lack adolescents’ participation in both National and County strategic plans. To this end, this study sought to explore the gaps presented by identifying barriers preventing adolescents from accessing and using HIV testing services in Kawangware informal settlements despite the national, county, and development partners’ efforts.

To this end, the research was guided by the following research questions**:**

1. What are some existing guidelines and strategies implemented to improve access and ingress of HIV services among adolescents?
2. Why and how is SRH education among adolescents important in increasing the access and ingress of HIV-related services in informal settlements?

3. What individual or structural factors hinder adolescents in informal settlements from seeking HIV treatment or care services?

1.3 Research objectives

The study's general goal and specific goals focused on understanding the obstacles that hinder teenagers from using HIV services in informal settlements.

1.3.1 General Objective

To investigate the obstacles that prevent teenagers in Nairobi City County's Kawangware informal settlements from getting HIV services.

1.3.2 Specific Objectives

1. To interrogate the existing guidelines and strategies that support the adolescents' access and ingress of HIV services.
2. To document the importance of SRH-related education to increasing the ingress and access to HIV- related services among adolescents in informal settlements.
3. To ascertain the degree to which individual, and structural factors hinder adolescents from informal settlements from accessing HIV-related services.

1.4 Assumptions of the Study

1. The existing guidelines and strategies can effectively support adolescents' access and ingress of HIV services.
2. SRH-related awareness and education increases the ingress and access of adolescents from informal settlements to HIV-related services.
3. The individual and structural factors have effects on adolescents' access and ingress of HIV-related services.

1.5 Justification of the study

In spite of efforts by the National government, the county, and development partners in Nairobi City County's Kawangware informal settlement, the teenagers are not sufficiently obtaining HIV-related services, according to research. Despite legislative initiatives like the Kenya AIDS Strategic Framework and the Adolescent Reproductive Health and Development Act, the HIV and AIDS public health issue is still a severe one. The policies' shortcomings make it unclear if they are sufficient to solve the issue or if they require reinforcing. There aren't many age-appropriate screening tools or resources available for teen HIV infection. Therefore, ensuring HIV-related services have adolescent-specific materials and information would help adolescents improve access and ingress of HIV-related services. The study outcome benefits various parties by identifying barriers preventing adolescents from accessing HIV-related services in informal settlements. The study checked the status of the current strategies that are meant to ensure adolescents' access to SRH services vis-a-vis implementation and practice. The study then provided findings in gender-specific data that would enable the development partners and policymakers to make evidence-based interventions and customize strategies to promote access to HIV-related adolescent services. Finally, the study added to the wealth of knowledge in the subject area and will serve as a reference for future researchers.

1.6 Scope and Limitations of the study

The study was conducted in Kawangware informal settlement of Dagoretti North Sub-County and targeted three wards; Kawangware, Gatina, and Kabiro. The study excluded two wards, Kileleshwa and Kilimani because they do not fall under informal settlements. Covering the three wards provides a fair representation of adolescents from informal settlements, enabling the researcher to produce reliable results on the basis of a wider coverage.

The study encountered various limitations; it covered only three wards, making it a limited geographical region. However, the three wards gave an accurate status of barriers experienced

in informal settlements, and the analyzed data helped generalize the findings. This is especially on existing gaps, the status of implementation of guidelines and strategies, and the adolescents' recommendations to improve access to HIV treatment services in different informal settlements. Another limitation was that during the survey as well as the key informant interviews, some participants and respondents were more verbally endowed and expressed more views and opinions compared to the less verbose ones who appeared shy. This could mean that their views are slightly expressed in the report than the shy ones. Despite the attempt to maintain and uphold the integrity of the data collected, it is possible that some words or phrases were incorrectly translated, but the main concepts have been captured.

1.7 Definition of Key Terms

Adolescent Refers to a transitional phase of growth and development between childhood and adulthood, at the age of 10 to 19.

Vulnerability It is the state where people are more exposed to risks compared to their peers.

Informal Settlement is a community of makeshift homes. It frequently lacks the necessary infrastructure for supporting human settlements, such as good sanitation, a clean and safe water supply, electricity, and hygienic streets.

HIV Counseling: This is a private conversation between a counselor and a client that helps them manage stress and come to conclusions about HIV and AIDS. Evaluation of a person's risk of HIV transmission and discussion of infection prevention are both part of the counseling process.

HIV Services: This entails different services, such as counseling, preventive care, and treatment.

Stigma: AIDS-related stigma and discrimination refer to prejudice, negative attitudes, abuse, and maltreatment directed at people living with HIV and AIDS.

Healthcare providers: These people systematically offer communities, people, or families curative, rehabilitative, preventive, or promotional health care services.

2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The chapter focuses on literature review along the lines of specific objectives. The first section of the chapter examines the available empirical research in light of the three specific objectives. The capacity and vulnerability assessment and the theory of planned behavior are the two main theories used in the second section, which focuses on the theoretical framework. The conceptual foundation for comprehending the relationship between the variables is covered in the third section.

2.2 Existing Program Strategies and guidelines that support the overall access and uptake of HIV-related services among adolescents

In order to make reproductive health care available, inexpensive, and acceptable to teenagers, particularly those living in informal settlements, the Kenyan government and development stakeholders have created a number of guidelines and policies. There are programs that focus on the connection between adolescent health and the growth of the country, highlighting the importance that teens may play in improving their own health. The majority of these tactics and recommendations were developed in collaboration with the Kenyan National Government by government organizations. The plans and strategies address various problems and challenges relating to adolescent reproductive health, including SRHR; harmful customs, such as early and structural marriage; gender-based violence; female genital cutting; socioeconomic factors; drug and alcohol abuse; and the unique requirements of adolescents with disabilities (Manoti, 2015).

Adolescents and young people are identified as the primary subjects with an issue for the HIV response in the Kenya AIDS Strategic Framework (KASD) for 2014 to 2019. Kenya has consistently engaged in policies and initiatives that try to manage the gaps observed in the adolescents since they were designated as the key worry population for the HIV response, particularly those in the informal settlements. Despite the efforts, adolescents have yet to show

the benefits of improved programs. Some teen populations around the globe, particularly those who reside in unfavorable conditions in informal settlements, run the risk of not properly using HIV-related services. The adolescent stage is when a number of developmental, psychological, social, and structural shifts confluence (Bekker, Johnson, Wallace & Hosek, 2015; Aggleton, Chase & Rivers, 2004).

According to the National AIDS Control Council of Kenya (2016), several factors have advanced the challenges of uptake and access of HIV- related services among adolescents, most of whom live in informal settlements. These factors include lack of sexual health education that exposes them to HIV, such as condom use, poor perception of HIV risks and prevention, inability to resist forced sex from a partner, and having sexual intercourse under the influence of alcohol or drugs, among others. Notably, these issues are more prevalent in informal settlements with low awareness, a lot of insecurity and negligence, lack of adolescent-friendly services, and poor health-seeking behaviors (Meremo, Mboya, Ngilangwa, Dulle, Tarimo, Urassa, D & Ernest, 2016).

Kenya has intensified its efforts to combat the spread of HIV and AIDS in squatter communities through a number of methods. A strategy plan that focuses on combining and harmonizing HIV-related initiatives of many partners and stakeholders influenced Kenya's response to HIV and AIDS. The National AIDS Control Council is in charge of coordinating the HIV response, which builds on the active participation of civil society and HIV-positive individuals. The majority of HIV-related services in Kenya are handled by the National AIDS and STI Control Programme, which is part of the Ministries of Health. Kenya has created performance metrics to encourage responsibility in the response and drive improvement (NACC & NASCOP, 2012). Despite the robust programming, adolescents lack meaningful participation in all stages of planning, delivery, and monitoring of the policies and national plans. Adolescence is a discovery stage, requiring innovative approaches and unique platforms to reach the group and

provide services. Low participation and lack of innovative ways contribute to low access and uptake of services.

The Kenyan government and other key players focused their efforts on HIV prevention by utilizing numerous tried-and-true techniques. The tactics included abstinence, faithful condom use and male circumcision, voluntary counseling and testing for HIV (VCT), STI diagnosis and care, prevention of mother-to-child transmission (PMTCT), behavior change communication (BCC), safe blood supply, and injection safety (Mwaura, 2009). Despite these attempts, Mwaura (2009) stated that there are still gaps. First, the formal and informal settlements showed the greatest regional disparities in HIV infection. Third, prevention initiatives do not integrate with other programs; second, intense programs that target adolescents from informal settlements are needed for the most vulnerable and high-risk groups. Finally, gender differentials and inequality, cultural barriers, and lack of service delivery centers in informal settlements lead to poor access to the required services.

According to NACC (2015), adolescents remain at a higher risk of infection with HIV and AIDS. Low access and uptake of services are mainly fueled by gender inequality, lack of access to quality services due to the bad attitude of health workers, poverty, stigma, and discrimination. At the health facilities, the framework indicated that there were adolescent-friendly services at health facilities. However, in reality, teens rarely use these services because of staffing shortages and a lack of committed personnel in the adolescent-friendly services. Investments are needed to extend access to comprehensive HIV prevention and support services in the informal settlements in order to increase uptake and access to HIV-related care among adolescents. It also concentrated on enhancing the youngsters' capacity to foster their fortitude and volunteerism. HIV prevention and treatment programs for teenagers living in slums must be strengthened and incorporated into other fields like education, social welfare, social protection, and health. Programs require adaptation to the needs of adolescents living in

informal settlements who are at a higher risk of HIV infection and may not seek the relevant services due to various restraining factors (NACC, 2015).

A study done in many African nations found that the gaps in the current programs, strategies, and plans exacerbate teenage poor-seeking behaviors of HIV-related services. Lack of domestication of crucial regional and international protocols, lack of proper enforcement of current protective provisions or policies, inconsistent and improper definitions of adolescents, the existence of punitive, repressive, or unfair laws affecting stigmatized and vulnerable groups, silence, denial, or neglect of specific sensitive issues are just a few of the gaps (Ahonsi, Tawab, Geibel, Kalibala, Okal, Mane& Green., 2014). The current tactics and plans are less suited to the teenagers living in harsh environments and informal settlements in Kenya and other African nations.

According to Ahonsi *et al.* (2014), the custodians lack proper mechanisms to ensure policy implementation, unavailability of funds, lack of awareness of, and/or inadequate training on, the use of existing guidelines by service providers and ministry of health leads are seen as stumbling blocks.

2.3 SRH-related education and guidelines relating to adolescents' access and uptake of HIV-related services

According to information from International Planned Parenthood Federation (IPPF), rules make it difficult for teenagers to get services related to SRH (International Planned Parenthood Federation (IPPF), 2013). IPPF (2013) reports that legislation in many nations frequently impedes teenagers' access to and use of SRH services. Restrictive regulations typically make sexual taboos and stigmas against adolescents worse. Due to glaring definitional gaps in the current rules and regulations as well as the employment of tactics that do not completely take into account the requirements of teenagers, the majority of adolescents lack education and have

limited access to services pertaining to SRH and rights. They don't think about the results of their sexual activity as a result, and they don't seek SRHR assistance (Ngilangwa et al., 2016). Ngilangwa et al. (2016) further stated that although there is a lack of information, education, and services related to SRH that are available to adolescents, access to this information is a fundamental right for them. The lack of age-specificity in the information items demonstrates how inadequately adolescents are targeted when disseminating information. For marginalized groups such adolescents with HIV and AIDS, illiterate adolescents, adolescents living in informal settlements, and adolescents with impairments, the educational resources are not user-friendly.

There is a shortage of information regarding the state of SRH and rights in African nations like Kenya. The existing evidence indicates poor trends for groups such as adolescents (10 to 19 years), children, and adults. This shows that there was no provision of evidence-based interventions and an informed, comprehensive HIV, sexual, and reproductive health and rights package that is developed specifically targeting the marginalized groups such as adolescents aged 10 to 19 years.

Kenyan teenagers suffer significant issues with reproductive health as reported by a 2012 study on violations of the rights to SRH rights by the Kenya National Commission on Human Rights. The adolescents do not have easy access to attentive and high-quality medical care, such as services for HIV testing, care, and treatment, prenatal care, safe abortion, skilled delivery attendance, and declining rates of maternal and perinatal mortality. Furthermore, individuals are exposed to harmful cultural practices that raise their risk of developing STIs, including HIV, such as early forced marriage, female genital mutilation (FGM), sexual abuse, and violence, such as defiling acts, rape, forced intercourse, and incest. Notably, teenagers lack proper information on sexuality, sex, and reproductive health, and some are exposed to sex tourism. Manoti (2015) conducted a study in Kenya that examined the factors influencing

access to SRH services. He noted that the learning institutions lack laws, policies, and guidelines that elaborate on how adolescent learners should access HIV-related services. He argued that through learning institutions, the government should establish an adequate legal infrastructure and policies to remove barriers to access to health care in adolescents. The aforementioned obstacles significantly impede service uptake and access.

Teenagers' health and welfare are more at risk from a number of harmful SRH outcomes, such as early pregnancy, HIV infection, and other STIs, than those of any other age group (Bearinger, Sieving, Ferguson & Sharma, 2007). The greatest SRH burdens among teenagers worldwide continue to be experienced by those living in low- and middle-income nations like Kenya. On the other hand, Sommer and Mmari (2015) observed that despite rising understanding of the need to enhance teenage SRH outcomes, there aren't many success stories. They noted that one potential explanation for this would be that most intervention techniques have fallen short of addressing the larger circumstances that surround these adolescent behaviors and outcomes. Programming for adolescents requires engaging different stakeholders or broader communities that influence their decision-making and lives (Gross, 2007). It includes gatekeepers such as schools and parents. Such robust programming is not available in Kenya despite the government and Counties investing in policies and guidelines to reach out to adolescents. The practice of the laws is different compared to what exists in the policies, and this glaring gap contributes to low access and uptake of HIV-related services.

There is a lack of knowledge about how structural determinants and population-health improvement strategies affect adolescent health, specifically how this affects access to and use of adolescent SRH services (Sommer & Mmari, 2015). Sommer and Mmari (2015) examined the structural and environmental factors that influence adolescents' access to SRH care as well as their reproductive and sexual health in low- and middle-income countries. They pointed out that one of the main obstacles for adolescents seeking SRH care is that the providers refuse to

treat them. There is no specialized clinician to care for the adolescents, and the centers lack health providers with adolescent-friendly services. For instance, in Kenya, between 55% and 67% of SRH service providers do not provide services to adolescents (Mutea et al., 2020). School girls in the adolescent stage, irrespective of whether they are sexually active, cannot be allowed to use preventive methods because, as per Kenyan law, they are minors (Mutea et al., 2020). In addition, the school guidelines do not include sex education, so there is no sex education in schools. Hence, adolescents cannot access condoms to prevent HIV infection.

Gaps in current laws and regulations have an impact on how those laws are applied in practice. One of the biggest obstacles to receiving SRH treatments is service denial (Sommer & Mmari, 2015). SRH services providers also hinder the utilization of services by having adolescent patients wait for long periods to punish them for immoral behavior or handle them so rudely that they will not want to return. It means that adolescents' uptake and access to services are being affected due to a lack of proper strategies supported by guidelines and laws, hence poor access and uptake. Therefore, revising and including adolescent guidelines in the frameworks and guidelines, developing adolescents' specific strategies, and addressing the quality of provider-patient interactions are essential for enhancing uptake and access to SRH services (Sommer & Mmari, 2015).

2.4 Health-Seeking Behaviors, Social and Cultural Determinants among adolescents and their effects on Access and Uptake of HIV-related Services

Due to the negative effects of HIV on society, academics were very interested in the availability and use of HIV services. A secondary analysis of data on the effects of community-based HIV testing and counseling (HTC) on testing uptake was carried out by Sulat et al. (2018). Lack of knowledge about HIV, stigma-related anxiety, a lack of social support, a low perception of the risk of contracting HIV, and an incorrect perception of the benefits were cited by researchers as potential barriers preventing adolescents from using facility-based HIV testing and

counseling services. According to Sulat et al. (2018), community-based HIV testing and counseling interventions successfully increased the adoption of these services as well as a few other secondary outcomes, such as social and behavioral outcomes. However, adolescents were not accessing community-based services because they feared being branded as whores and immoral, exposing them to more harm. Further, there was low uptake and access to these services by adolescents from informal settlements due to a lack of confidentiality; the services were not regular hence loss of follow-up, poor health-seeking behaviors among adolescents, and lack of privacy. It showed that implementing community-based HTC with linkage to prevention, care, and treatment services does not accommodate the adolescents' health needs hence poor uptake and access.

Teenagers who do not have access to knowledge about SRH and rights are more likely to experience sexual health risks like STIs, fear of discrimination from peers, and total ignorance (Braeken and Rondinelli, 2012). Adolescents faced serious issues with their SRH, including a dearth of services catered to them and knowledge about their sexual development. Notably, this has influenced youth to participate in risky sexual behaviors that have elevated rates of STIs, HIV, and untimely pregnancies (Mbeba et al., 2012).

In Mbeba et al. (2012) research on the barriers that young people faced in gaining access to services and rights pertaining to SRH, they found that many healthcare facilities lack trained professionals to deliver SRH services. Additionally, they stated that the absence of privacy, confidentiality, appropriate equipment, medication, and unfavorable provider attitudes made the SRH services unavailable. Further, they noted that adolescent programming is not a priority, and these problems are more pronounced in informal settlements with fewer government facilities.

One characteristic that has an impact on how often people use health services is age. According to KDHS (2014), adults between the ages of 20 and 24 use SRH services more frequently than

adolescents between the ages of 10 and 19. The importance of illness or the necessity for SRHR services is rarely understood by adolescents (Manoti, 2015). Additionally, teenagers' access to resources for SRH knowledge and care is not supported by the measures currently in place. In a study by Senderowitz et al. (2003) on the preliminary evaluation of reproductive health services, it was discovered that access to care is limited by national regulations and legislation based on marital status, age, or/and insufficient understanding of the dangers associated with early sexual initiation, STI, HIV, and pregnancy, as well as poor comprehension of their changing bodies. The youngsters were less likely to seek out care and assistance as a result.

The limited norms and rules governing sexual health services are the main reason why the sexual health of teenagers seems to be a somewhat elusive topic. Few structures exist to handle adolescent sex and sexuality since it has remained a taboo subject (Akinyi, 2009). Akinyi in her research among college students in Kiambu County argued that the access and utilization of adolescent-friendly reproductive health services among students in the adolescent stage relies on various factors such as demographic, economic, school, socio-cultural, and health system factors. She observed that gender, age, education, type of school, and knowledge of the existence of reproductive healthcare offered influenced the use of reproductive health services. Long queues, harsh schooling hours, mixing out of adolescents, and lack of funds negatively affected utilization of Reproductive Health services as well as access and uptake of HIV-related services.

In a study by Berendes and Rimal (2011) that examined the role of stigma, self-efficacy, and knowledge in the slow uptake of HIV services, they concluded that improving HIV testing service alone has not improved access and the uptake of screening, care, and treatment in several parts of sub-Saharan Africa, particularly among adolescents. They suggested that more efforts should be concentrated on understanding the social or cultural issues, adolescents will be concerned with access and uptake of HIV-related services, and the behaviors that lead to

not seeking the services. They concluded that HIV-related knowledge, self-efficacy, and lack of stigma are positively correlated with HIV testing. This shows that ensuring adolescents have knowledge of HIV, addressing stigma, and introducing behavior change through advocacy would improve access and uptake of services among adolescents.

In a related study, Meremo *et al.* (2016) in their research on barriers to utilization and accessibility of HIV testing and counseling services in Tanzanian informal settlements asserted that providing free antiretroviral treatment (ART) as an incentive to test in developing countries such as Kenya has little effect, given that HIV testing and counseling services utilization was low. Remarkably, this could be attributed to education, age, proximity to clinics, socioeconomic status, availability of outreach services and rapid testing. They observed that lower levels of education, HIV and AIDS stigma, inadequate physical facilities, long waiting times, lack of available treatment, the need to give bribes to receive care and discriminatory attitudes of healthcare staff contributed a great deal too low uptake of services. These factors are most prevalent in informal settlements and are noted to primarily affect adolescents. Generally, their findings illustrated the fact that HIV testing and counseling coverage was high, though long waiting time, failure to target adolescents, and lack of confidentiality impeded its accessibility and utilization.

Strauss, Rhodes, and George (2015) looked at the facilitators and barriers to HIV testing and counseling for teenagers in South Africa where they suggested that one of the best and most crucial approaches for controlling the HIV epidemic is HIV counseling and testing (HTC). There was strong evidence demonstrating the relationship between higher HTC and lower HIV incidence. The study found that the biggest obstacles to teenagers using HTC were prejudice, stigma associated with testing, and the innate dread of a favorable outcome. Fear and subsequent false perceptions about HTC were brought on by a lack of information, especially in informal settlements where young people were exposed to a variety of influences.

Today's teenagers are more at risk of experiencing negative health consequences due to a convergence of factors including global socioeconomic changes, behavioral patterns, and special developmental vulnerabilities (Bearinger, Sieving, Ferguson & Sharma, 2007). Despite the fact that the strategies employed should be based on the developmental needs of this age group, the social context and effectiveness of these techniques were complicated. All teenagers must have access to high-quality programs that are customized to meet their needs and are provided by clinicians who have the requisite skills.

Programs on sexual education must offer thorough and accurate information that develops the ability to bargain for acceptable sexual practices. Additionally, both boys and girls need to have equitable access to adolescent development programs that link them to encouraging adults as well as educational and professional opportunities (Bearinger et al., 2007).

Globally, there has been agreement to an unprecedented global agenda for sustainable development in 2015, which included the goal of eradicating the AIDS pandemic by 2030. (WHO, CIPHER & IAS, 2017). The plan to stop the AIDS epidemic was supported by the implementation of policies and initiatives. Unfortunately, it has been noted that 150 teenagers pass away from AIDS-related reasons every day, and 2.1 million adolescents (10–19 years) are thought to have HIV despite systems and processes (WHO, CIPHER & IAS, 2017). Annual AIDS-related deaths decreased for all age categories between 2000 and 2015, with the exception of adolescents, whose mortality doubled from 18,000 to 41,000. (UNAIDS, 2018).

The fact is that AIDS is the biggest cause of death among teenagers in sub-Saharan Africa. In 2016, there were 250 000 new HIV infections among teenagers aged 15 to 19 while there were already 1.8 million HIV-positive people in this age group (UNAIDS, 2018). Unbelievably, adolescents make up for three out of every four new infections in Africa. The primary factor in adolescent mortality and morbidity is AIDS (EGPAF, 2016). According to estimates, 133,455 teenagers in Kenya are HIV positive (EGPAF, 2016). Additionally, there are 2,797 deaths and

18,004 new infections among adolescents aged 10 to 19 per year (EGPAF, 2016). Adolescents have substantially less access to and usage of HIV testing and counseling than do adults. Adolescent-specific initiatives are required because teenagers have lower rates of antiretroviral treatment (ART) coverage than any other age group of HIV-positive people (WHO, CIPHER & IAS, 2017).

The literature revealed that the new infections and HIV-related deaths among adolescents continued to increase despite the guidelines and strategies developed to improve access and uptake of HIV-related services (Armstrong, Baggaley, Ferguson & Wolmarans, 2013). Notably, most health and young adult organisations fail to recognize the adolescent group in Kenya legally. The health-seeking behaviors, and social and cultural behaviors among adolescents, affect the access and uptake of services.

To address the access and uptake of HIV-related services among adolescents requires effectively addressing the root causes that derail the adolescents from accessing the services. Some of the key persistent barriers include;

- Glaring gaps in law that ignore the definition of adolescents in legal documents, including in consenting matters that negatively impact the adolescents' access and uptake of services (Gross, 2007).
- Lack of Comprehensive Sexuality Education (CSE), yet the adolescents are expected to seek sexual and HIV services with minimal understanding of the issue's intensity (Gross, 2007).
- Adolescents-friendly services are scarce and often unable to provide quality and confidential services. Availability, accessibility, and lack of integration of services also pose significant barriers.
- Early and forced marriage, peer pressure, and other social and cultural norms sometimes drive adolescents to have unprotected sex, placing them at risk for STIs and

HIV. However, because of stigma, individuals frequently hesitate to obtain SRH and HIV services (Naswa & Marfatia, 2010).

- There is a lack of a comprehensive care package and referrals, especially for adolescents seeking HIV-related services.
- Untapped learning while making approaches leads to less monitoring interventions and documenting successes and lessons learned (Gross, 2007).

There are information gaps about teens' knowledge of HIV due to challenges in securing parental authorization for their participation in surveys and a lack of age-appropriate questions. Small sample sizes and a lack of disaggregation limit the quantity of available evidence to inform programming when data are available. Due to data inadequacies, teenagers typically overlook local and national HIV strategic strategies.

2.5 Theoretical Framework

The project employed the theory of planned behavior that helped analyze adolescent behaviors and trends leading to low access and uptake of services.

2.5.1 Theory of Planned Behavior

According to Ajzen Icek's theory of planned behavior, behavior intentions—three factors including a person's attitude toward activity, subjective norms, and perceived behavioral control—are what motivate individual behavior (Cameron, Ginsburg, Westhoff & Mendez, 2012). Due to Reasoned Action's shortcomings in addressing activities in which people have imperfect volitional control, the theory was expanded (Zhang, 2018). The idea that conduct represents a person's purpose to carry out a specific action forms the basis of the theory of planned behavior. It is believed that intentions include the motivating variables that influence behavior. They demonstrate how willing people are to act and how much effort they are willing to put forth (Ajzen, 2011).

The variance in intention and behavior in earlier literature has been largely explained by the theory of planned behavior. An appraisal of a specific behavior is reflected in attitudes about doing behavior. One's perceptions regarding the results of HIV testing, the perception of the community and peers, and the importance of the test result all influence one's attitude toward the action, in this case the uptake of HIV testing and other services. The acceptance of alternative preventive and therapeutic services, HIV testing, and perceived social pressure to engage in the behavior are examples of subjective norms. They are influenced by one's perceptions of whether their significant others believe they should act, as well as their motivation to carry out their requests. Unlike attitudes or subjective norms, perceived behavioral control is proposed to predict behavioral success because it reflects the apparent effort associated with behavioral performance and behavioral intention (Martinez & Lewis, 2016). This theory aided in determining whether adolescents' planned behavior is to blame for the restricted access to services.

2.5.2 Capacities and Vulnerabilities Assessment Framework

The research also employed capacities and vulnerabilities framework to spell out adolescents' strengths and weaknesses concerning access and uptake of services. This was necessary particularly in identifying the gaps in the current interventions.

The capacities and vulnerabilities assessment (CVA) framework is created to evaluate community capacities and vulnerabilities, developed on the principle that individuals' strengths and weaknesses define the effect that a crisis will have on them and how they react to the crisis. Assessing capacities and vulnerabilities believes that local communities should engage in "self-discovery and self-analysis for the study results to appropriately guide the crisis preparation and intervention," according to Gumiran et al. (2019).

Gumiran et al. (2019) assert that every community has different strengths and vulnerabilities. In this context, capacity refers to the advantages that individuals and social groups have.

Contrarily, vulnerabilities are long-term elements that make it harder for a person to deal with sudden disasters or ongoing situations. Societies may be weak or strong in various areas, and these weaknesses or strengths are just as important as societies' material riches or lack thereof (Anderson & Woodrow, 1989). As an illustration, Anderson and Woodrow (1989) highlighted that well-organized and cohesive civilizations, regardless of wealth, are better able to resist or recover from disasters than disorganized societies with polarized populations. Similar to this, organizations with strong ideologies or belief systems, or who have a history of effectively working together to achieve common societal goals, may be better equipped to aid one another and lessen various forms of suffering than groups without such shared views.

The framework for assessing capacities and vulnerabilities (CVA) was applicable to the current investigation. It promotes a framework that would assist the community in finding a solution to the problems with teen HIV testing access and uptake. For a lasting solution to the barriers to access and uptake of HIV testing services among adolescents, as argued in CVA, the community can undertake a self-discovery and self-evaluation to develop a community-based intervention to access and uptake HIV testing services among adolescents. **The analysis template is as shown below;**

Table 2: Capacities and Vulnerabilities Assessment Framework

	Capacities	**Vulnerabilities**
PHYSICAL/MATERIAL What are the existing guidelines and strategies to support the overall access and uptake of HIV services?	**Strengths/Opportunities** What guidelines exist in communities to support the provision of HIV services?	**Weaknesses/Threats** What are the ways in which adolescents in this informal community are or were physically and/or materially vulnerable?

SOCIAL/ ORGANISATIONAL How SRH-related education and awareness efforts and guidelines are related to adolescents, and how do they discriminate against adolescents and deny them the ability to access HIV-related services?	**Strengths/Opportunities** What are the social structures around the issues of HIV services?	**Weaknesses/Threats** Given the social context around the access and uptake of HIV services, are there possible solutions or efforts?
MOTIVATIONAL/ ATTITUDINAL What are the health-seeking behaviors and social and cultural determinants among adolescents, and how do they affect the access and uptake of HIV-related services?	**Strengths/Opportunities** How do people in the community perceive HIV services?	**Weaknesses/Threats** Are community members or individuals able to adapt to the concept of seeking and accessing HIV services as adolescents?

Source: Anderson – Woodrow (1990). *A manual for training in capacities and vulnerabilities analysis.*

The planning procedures are informed by the use of capacity and vulnerability assessment, which offers a trustworthy and qualitative understanding of the target vulnerabilities and capacities. The framework strengthens the foundation for developing sustainable programming and the flexible application of the strengths identified, which fosters a strong sense of ownership throughout the assessment process. Effective long- and short-term risk management, hazard reduction, and informed response strategies are developed using the CVA framework.

The participative approach demands time, sources, and resources to conduct, which is one of the CVA framework's flaws. In some instances, it could cause minor accomplishments due to inflated expectations of help. The project recognized the flaws in the framework that is why the first theory was adopted.

2.6 Conceptual Framework

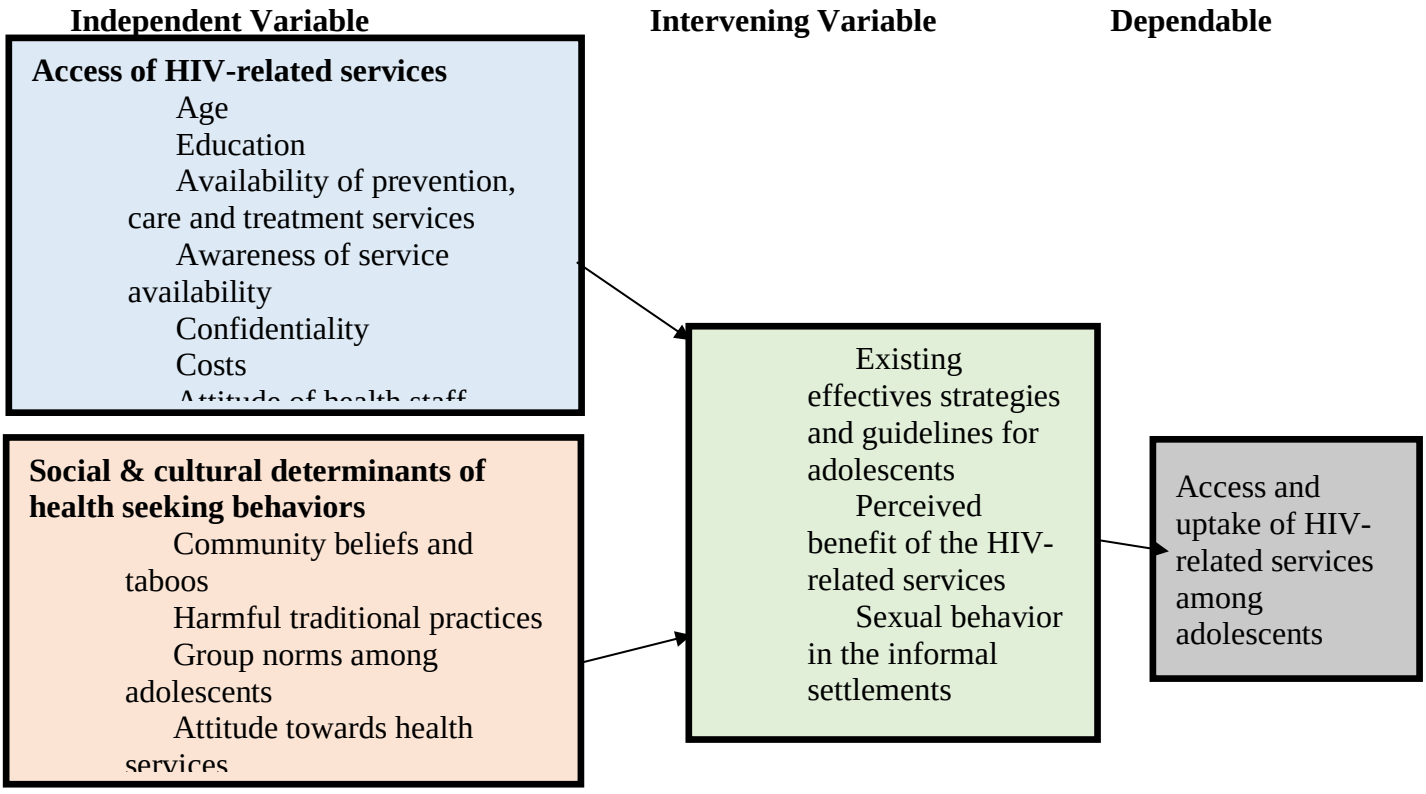
The goal of the study was to identify the obstacles inhibiting teenagers in the Dagoretti North Sub-County, Nairobi County, from accessing and using HIV prevention, care, and treatment

services. The study employed a conceptual framework to specify various courses of action and to provide a recommended way of addressing an idea or way of thinking. According to Ajzen (2001), a conceptual framework is a fundamental structure made up of certain abstract building blocks that encapsulate the experiential, analytical, and synthetic characteristics of an imagined process or system. The connecting of different architectural pieces completes the framework for specific anticipated consequences.

Independent Variables are alterations that an experimenter directly causes to take place. Figure 2.1 below illustrates the independent variables used in this study, which were socio-demographic traits, sociocultural elements, and access to healthcare.

A dependent variable, on the other hand, is dependent on the independent variable. What you track in the experiment and what is impacted by it are both considered dependent variables. The independent variable affects the dependent variable's behavior. Adolescents' access to and utilization of HIV-related services was the study's dependent variable.

Figure 1: Illustration of the interaction between these variables.



(Source: Researcher May 2019)

The study sought to establish the barriers affecting low access and uptake of HIV-related services among adolescents in informal settlements by focusing on Kawangware settlements, Dagoretti North sub-county. The independent variables in this study were factors influencing access to services, socio-cultural factors, socio-demographic characteristics, and health service factors. The existing guidelines and strategies on the access and uptake of HIV services are the moderating variables. At the same time, perceived benefit, previous sexual behavior, and attitude were the variables causing the effect. Therefore, to establish the causal relationship, the third variable must be introduced to give a plausible alternative for the causal relationship. In this case, attitude and perceived sexual behavior are the third or missing variable that creates the validity of the cause-and-effect relationship between the dependent and independent variables.

3.0 METHODOLOGY

3.1 Introduction

The study's research technique is described in the chapter. The chapter provides details on the research site, research design, study population, sample population, sampling process, data collection methods, instruments, and the processing, analysis, and presentation of the results. Additionally, it covers the ethical standards that guided the investigation.

3.2 Research Site

The research was carried out in the Dagoretti North sub-county within Nairobi City County. The sub-county consists of five wards: Kileleshwa, Kilimani, Kabiro, Gatina, and Kawangware. The researcher selected the three slum areas of Kabiro, Gatina, and Kawangware purposive based on their representation of the informal settlements. A high number of adolescents also inhabit the area. Urban informal settlements adolescents have disproportionately high rates of HIV compared to non-informal urban adolescents and rural adolescents (African Population and Health Research Center, 2008). Slum areas such as Kawangware, Gatina, and Kabiro are characterized by abject poverty, lack of water, overcrowding, and a high prevalence of HIV/AIDS (APHRC, 2014). Kawangware has an estimated population of about 38,402 persons and comprises slums, and low-class residential areas with a constant lack of basic amenities such as clean water, poor road infrastructure, and insecurity.

Kabiro ward has an estimated population of about 34,733 residents, and Gatina ward has an estimated population of about 43,627 persons. It is noteworthy that these three informal settlements have 34,683 young males and 32,731 young females (KNBS, 2009). Teenagers in the lowest wealth quintile would have a higher HIV prevalence (3.1%) than those in the highest wealth quintile (2.6%) (Kenya Demographic and Health Survey (2014). Furthermore, 12% of

urban slum dwellers have HIV, compared to 5% in non-slum areas, where only 50% of city dwellers reside. Slum residents do significantly worse in terms of risky sexual behavior when compared to their wealthier urban peers or those living in rural settings (DooDoo, Zulu & Ezeh, 2007). It estimated that 65 percent of adults lack formal education and skills and are unemployed which exacerbate their predicament. Due to practices like early marriages or transactional sex, young women are increasingly economically dependent and susceptible to HIV infections. The high prevalence of HIV within these informal settlements has also left many adolescents and children as orphans. The lack of parental or moral guidance also increases their vulnerability to HIV infection.

3.3 Research Design

A cross-sectional descriptive study design was employed in this study. It enables the collection of primary data along the lines of the specific study objectives. The use of a descriptive survey approach helped in determining the what, where, and how of a phenomenon. In addition, the descriptive survey helped address the specific characteristics of the selected population (adolescents) to compare the relationship between variables at a point in time. A structured questionnaire was administered with questions covering socio-demographic characteristics to collect primary data. The questionnaires were administered to the adolescents on a face-to-face basis by the researcher and a team of assistants who were duly trained in data collection and management. Thus, the study addressed specific characteristics of adolescents in a bid to establish the barriers preventing them from the access and uptake of HIV-related services.

Key Informant Interviews (KIIs) were also conducted in Swahili and English by male and female interviewers to the identified professional informants. Interviewers underwent 3 days of training where they were given an understanding of the study, their roles, research ethics, and familiarization with the questions.

3.4 Study Population

The study targeted adolescents in danger of contracting HIV and AIDS in Kawangware, Gatina, and Kabiro informal settlements, Dagoretti North Sub-County. The adolescents in these settlements are more vulnerable to contracting HIV due to poor access to formal education and health services. These informal settlements have poor social infrastructure, and access to quality health services is limited. The adolescents were recruited from informal schools, community youth centers, and other organizations in the community, such as sports clubs like football clubs and young lady's organizations. The adolescents were between the ages of 10 and 19 years, in conformity and as per the WHO definition of adolescents. They were able to communicate in both English and Swahili. The study allowed consent of guardians or parents for adolescents under 18 years to participate in the interview. The study engaged boys to girls with a ratio of 2:3 respectively, depending on their response to the request to participate. The higher number of girls was due to the high infection rate among young girls than boys. The unit of analysis was an individual in the adolescent stage. The researchers randomly selected the schools and institutions that participated. There are 12 villages in the informal settlements, and the study sought to recruit ten respondents per village. The villages had peculiar characteristics because there was a subcategory of class within the identified informal settlements. Therefore, gathering information from the villages was essential to figuring out the main obstacles to people using HIV-related services. Additionally, clinical officers in charge of healthcare facilities and teachers of guidance and counseling from unofficial schools participated as key informants in the study. The KIIs were carried out in order to comprehend the context of the barriers from the viewpoints of the public health specialists as well as other critical nexus in the adolescents' livelihoods.

3.4.1 Sample and Sampling Procedures

The study used a formula known as the Andrew Fisher's Formula to select the study's sample size. An 88.5% confidence level with a + 5% margin of error (MOE) was used for the study. The margin of error is a statistic expressing the amount of random sampling error in a survey's results.

The Fisher's formula to calculate sample size uses the formula below:

$$\textbf{Sample size (n)} = \textbf{(z-score)}^2 * \textbf{StdDev} * \textbf{(1-StdDev)} / \textbf{(confidence interval)}^2$$

Where: Standard Deviation = 0.5

Z-score for 86% confidence level = 1.1

Confidence interval = 0.05

$$= (1.2)^2 * 0.5(0.5) / (0.05)^2 = 120$$

$$n = 120$$

The researcher then proposed to use a stratified random sampling method that drew the study sample of 120 adolescents (boys and girls) from Kawangware informal settlements. The sample size of 120 was selected randomly from adolescents rooster under PEPFAR project in different primary, secondary and tertiary institutions. In addition, the study conducted Key Informant Interviews with 20 informants who deal with adolescents' health and well-being, such as health officers, teachers, and guidance counselors. The basis for selecting using the random sampling method was to minimize the effect of researcher favoritism. The total sample therefore consisted of 120 adolescents and the 20 key informants for the qualitative aspect of the research.

3.5 Data Collection Methods

The study collected primary and secondary data to cover a wider scope of understanding of the barriers to the access and uptake of HIV-related services.

3.5.1 Secondary Data

The secondary data was sourced from desk-review and analysis of healthcare access and uptake data, specifically on HIV testing and counseling from the existing health facilities, the ministry of health, adolescent-friendly services centers, and VCT centers. The information on the number of adolescents who sought HIV-related services at the health facilities were identified and used in backing up the primary data. The data would complement the primary data collected from the sample and KIIs. The secondary information also aided in the development of proposal, in the discussions of findings and report writing.

3.5.2 Primary Data

The study collected data from the study respondents through questionnaires and Key informant interview guides. The questionnaire tool was constructed through structured questions that contained multiple choices for respondents to tick against their choice of answer (Wester *et al.*, 2013). The questionnaires were filled based on the three objectives to ensure respondents only shared relevant information for the study. The questions in the questionnaires addressed the attitudes, health-seeking behaviors, and social and cultural determinants that would affect the access and uptake of HIV services among adolescents.

The study used key informant interviews to collect useful information from a number of identified professionals who interact with the adolescents in diverse settings. For instance, the administration officers and health facilities service providers were interviewed to obtain information relating to the variable on determinants of access and uptake of HIV-related services among adolescents. The KIIs were conducted through face-to-face interviews with the informants, and the data was collected via tape recordings, and note-taking. The questions in the Key Informant Guides focused on the observations and understanding of the KIIs regarding the barriers that lead to poor access and uptake of HIV services.

3.6 Data Processing and Analysis

The researcher used both quantitative and qualitative analysis techniques. Data collected from the questionnaire survey were analyzed quantitatively. Upon receipt of the completed questionnaires, the data was checked for errors, biases, exaggerations, and omissions then entered into SPSS (Statistical Packages for Social Sciences) Version 21. This generated descriptive statistics like frequencies and percentages which has been used to understand the behaviors of the adolescents.

The data from KIIs was collected from the tape recordings or notes taken were transcribed, sorted and cleaned up and coded before subjecting the same to thematic analysis along the lines of the study objectives. This process determined which of the various themes in the responses fit within the parameters of the research objectives. The presentation has involved the use of verbatim excerpts from the findings to amplify the informant voices and to assist in further understanding of the quantitative information.

3.7 Ethical Considerations

The researcher acquired the research authorization after applying to National Commission for Science, Technology, and Innovation(NACOSTI) for permission to conduct the study. By guaranteeing respondents' confidentiality and anonymity, their right to informed consent, and their choice to leave the study if they felt uncomfortable, the research complied with ethical standards. The participants were asked for their informed consent and told what the purpose of the study was (for academic purposes with the option of publishing the results). Adolescents' participation in the study was assessed based on whether the parents consented or if older ones consented or not.

The researcher observed the confidentiality of the respondents' information and identity. The respondents were informed beforehand that the information obtained would be used only for the stated objectives. The names of the participants were disguised as a way of ensuring

confidentiality and anonymity, and data was protected using safe passwords. The information provided by the respondents was also not used in a way that may cause psychological, emotional, financial, or physical harm to the respondents. The study adhered to the ethical principles of doing no harm, autonomy, and justice for the respondents and informants involved. The study used the ministry of Health guidelines for Conducting Adolescent HIV SRH Research in Kenya. Based on the location of the research, the protection and security of the respondents and researchers was prioritized to prevent any harm.

4.0. RESEARCH FINDINGS

4.1. Introduction

This chapter presents the findings and the analysis of the study. The information presented here includes the basic demographic characteristics of the respondents as well as the noted barriers that prevent adolescents from accessing and uptaking the HIV services at the study site.

4.2. Demographic characteristics of respondents

The study's sample size was 120 participants, including 120 adolescents aged between 10 and 19. The 120 adolescents were both boys and girls. The table below summarizes the descriptive data for the study participants.

Table 3: Demographic Statistics

Demographic Characteristic	**Category**	**Sample size (n)**	**Percentage (%)**
Age group (Years)	11-13	26	21.7
	14-16	46	38.3
	17-19	48	40.0
Gender	Male	71	59.2
	Female	49	40.8
Academic Level	Primary	27	22.5
	Secondary	79	65.8
	Tertiary	14	11.7
Parents/Guardian Occupation	Employed	31	25.8
	Unemployed	49	40.9
	Self-employed	40	33.3

Table 3 above shows that 21.75% of the adolescent population studied was aged between 11 and 13 years, and 38.3% of the population was between 14 and 16 years of age. The majority

were adolescents between 17 and 19 years, who comprised 40% of the sample size. On gender distribution, 59.2% of the population were male, and 40.8% minority of the population was female.

On academic attainment, the population varied from those with primary school certificates, secondary school certificates, and some form of tertiary education. All participants were enrolled in some level of education in various public institutions within the community. Most participants (65.8%) were in secondary schools, and only 11.7% had tertiary education. Therefore, the results were based on the majority in high school.

In measuring the Socio-economic status (SES) of the respondents, the parents' or guardian occupations were identified. The highest population (40.9%) of the sample came from unemployed parents or guardians, while 33.3% and 25.8% represented the self-employed and formally employed families, respectively.

4.3 Existing Program Strategies and Guidelines on Access and Uptake of HIV- Related Services among Adolescents

Health seeking Behavior	Users (%)	Non-users (%)	Not aware (%)
Screening/Testing for HIV/AIDS	14.2	74.1	11.7
SRH services	7.5	65	27.5
Abstinence	27.5	65	7.5
Safe-sex measures e.g., Condom	25	58.3	16.7
PEP and PrEP knowledge	6.7	15.8	77.5

Table 4: Health Seeking Behaviors among Adolescents in Kawangware

In reference to the table above, it was clear that the area of focus of the study had different programs aimed at closing the gap as far as uptake of the services is concerned. We have centres for the screening and testing for HIV/ AIDS yet they only receive 14.2% of the total number of the participants. Shockingly, 74.1% of the participants in this study have the knowledge of

the existence of the services yet they would not love to be participants of such services. The fact that only 11.7 percent people were not aware of the existence of the service then would mean that the rest of the people ignore the advice and the knowledge they have on the issue of screening for HIV and AIDS.

Something of great interest that arose from here was trying to understand why some of the youths were very adamant in responding to the existing HIV- Related Services. Some of the responses the researcher got from the open-ended questions in the survey were intriguing.

> *'On the question of why I don't think that there are no existing adolescent friendly HIV related services, I narrate my encounter, one of these nurses looked me straight in the eye, saying with a lot of confidence, you have gotten into issues of the adults, you must have fornicated'* (18-year-old girl).

> '*I don't think that there is any existing adolescent friendly service still left in our health sector, parents, maybe teachers, and other health workers must know your condition, this is something that discourages many from seeking this.' (*19-year-old boy).

> *'To be honest, most facilities are handled by adults, some of which have no clear understanding of what the youth experience. Once you mention anything to do with HIV testing, they already have painted immorality in their minds and are ready to lay a blame on the current generation.'* (17-year-old girl).

This then would clearly tell that the adolescents do not feel very comfortable visiting those existing health facilities that provide the services. The main argument is that the facilities are not adolescent-friendly and they need to be adjusted. That being the case then, it would draw the attention of the health workers to the moments of trying to understand what they may need to do differently in order to make sure the young people can believe that they will be safe and their information will remain very confidential. The program managers must therefore, understand the health seeking behaviors of the adolescents for an increased uptake of services.

4.3.1 Health Seeking Behaviors

Structured questionnaires were used to assess the health-seeking behaviors among the adolescents. The study also assessed other behaviors such as screening/testing for HIV, SRH

service uptakes, and abstinence and safe-sex attitudes. The table 4 above summarizes the findings of the survey of the population on these parameters.

Some of the stirring responses that came through the questionnaires were worth reflecting on especially the question on what an ideal Health facility offering adolescents-friendly services look like:

> *'My ideal health facility would involve working with self-test kits. This is where you alone will know your status then if you wish to share with someone you can do the same. This approach also includes having different centres where you drop your status then again you go and collect your medical guidance and the medication.'* (17-year-old girl).

> *'My ideal facility would involve having young people around the health centre' to give one the courage and knowledge that the services are available for the youth"* (15-year-old boy).

On the uptake of SRH services, most participants did not use such services or were unaware. 65% of the respondents did not use or seek SRH services, while 27.5% were not aware of the availability or need for SRH education or services. Only 7.5% of the adolescent population in the study admitted knowledge and use of SRH services. Abstinence is one of the ways that is recommended to prevent HIV, especially among adolescents. However, results show that the majority of the respondents (58.4%) do not engage in safe sex, while 16.7% were not aware of safe sex. In justification of these statistics, some respondents were not well-educated on SRH. Some participants were aware of the different prevention measures, such as abstinence and use of protection during sexual intercourse, but still engaged in unsafe sex. Abstinence and safe sex were contradictory at first, but most respondents believed in abstinence despite engaging in sexual activities.

Finally, on the knowledge of PEP and PrEP and intention to use these services, only 6.7% were knowledgeable and would embrace these options. 15.8% would not use these measures, while a significant majority of 77.5% of the participants were unaware of PEP and PrEP.

The findings show that most respondents have ignored or have an ignorant attitude towards seeking, accessing, and uptaking HIV services. The findings are similar to previous studies that

prove how various socio-cultural aspects create barriers to informal settlers accessing health services. Education, socio-economic status, and attitudes among the adolescents in these slums have affected their health-seeking behaviors.

4.3.2. Discussion and Interpretation

Adolescents have poor health-seeking behaviors that heighten their risk of contracting the virus and complicate the management of HIV cases. Compared with national averages, adolescents testing for HIV are well below (Naswa & Marfatia, 2010). Failure to understand their HIV status is one of the factors for the high transmission of the virus in these age groups. The study confirmed this concern. Only 14.3% of the adolescents who participated in the study in Kawangware have ever tested for HIV. The results show that 74.1% of the patients have never been tested or sought other HIV-related services. The reasons for failing to get tested for HIV differs among the respondents and is likely to extend to other groups or individuals. The health-seeking behaviors among adolescents are common throughout the region, with many exhibiting and giving similar reasons or barriers to access and uptake of HIV-related services.

On the other hand, findings show that 11.7% of the population/respondents did not know where they could test or even when they should test for HIV. The country's poor uptake and access to VCT services corresponded with poor uptake of SRHS in the area. Only 7.5% of the adolescents in the region (study sample) embrace these services, while 65% do not. Poor access and uptake of these services can explain the high incidences of HIV cases in the regions.

The other poor health-seeking services are based on poor decision-making or ignorance regarding personal choices. Abstinence is one of the ways that is encouraged to prevent HIV transmission among adolescents and young adults. Safe sex, especially the use of condoms, is the other approach that is encouraged to prevent HIV transmission amongst sexually active adolescents. Only 65% of the participants considered embracing abstinence, while only 27.5% considered it something they do or consider doing. Post-Exposure Prophylactic (PEP) and Pre-

Exposure Prophylactic (PrEP) are other interventions that are used to ensure that those who may have been exposed or have a risk of exposure do not contract the virus. Only 6.7% of the adolescents in Kawangware know and can take the PEP and PrEP options, 15.8% cannot use the option, and 77.5% did not know about these options. The above is a clear testimony to the need for exposure and knowledge on HIV and how to prevent it.

4.4. Individual and Structural Factors hindering Adolescents from accessing HIV-related services

There are several individual as well as structural constraints that were noted to act as barriers in the access and uptake of HIV related services among the adolescents.

4.4.1. Barriers to Health Seeking Behaviors among Adolescents

The study investigated the perceived barriers to access and uptake of health services and other programs related to the prevention and management of HIV. Many barriers were identified as the primary reasons the adolescent did not seek these services. The measurement was done on a Likert scale on the level of agreement with the posed statements on barriers to care. The table below shows the response of the adolescents.

Table 5: Barriers to Health Seeking Behaviors among Adolescents

Types of barriers to access to care	Strongly Agree	Agree	Disagree	Strongly Disagree	N
Long waiting time at the facilities	18 (17.6%)	68 (56.7%)	20 (16.7%)	14 (11.7%)	120
The attitude of health care workers	30 (25%)	66 (55%)	18 (15%)	6 (5%)	120
Cost of care	67 (55.8%)	42 (35%)	7 (5.8%)	4 (3.3%)	120
Lack of sufficient information	21 (17.5%)	49 (40.8%)	34 (28.3%)	16 (13.3)	120

Inconvenience due to school work and chores	41 (34.2%)	64 (53.3)	8 (6.7)	7 (5.8)	120

The data on the barriers to access and uptake of HIV health care services is presented above graphically on table 5.

From table 5, the data shows the major barriers as described by the adolescents or respondents in the study. 86 participants out of 120 agreed or strongly agreed that long waiting time at the facilities was a major barrier (68 agreed, 18 strongly agreed). It was compared to only 34 who disagreed that waiting time was a concern. On the attitude of health care workers, most of the participants agreed that this was a concern that prevented them from taking up these services. A total of 96 participants (30 strongly agreed, and 66 agreed). Cost of care is a major barrier to access and uptake to care among participants in Kawangware. As can be noted, 42 of the participants agreed that cost was a factor, while 67 strongly agreed. Besides the above, a number of respondents noted that nutrition and stigma are also major concerns when it comes to access to services.

> *"HIV/AIDS patients require a specific nutrition, since some of us live in informal settlement, our economic status may not support a good diet that accompany the medications."* (Mother to a 15-year-old girl).

> *"My boy became sickly for quite some time before I discovered that he was HIV positive. I could not comprehend such encounter. What majorly prevented me from benefiting from the service was the stigma that come with people infected and affected with the disease. Well, I was not also aware what health workers would perceive my son to be when they see him attending clinics and going for medications."* (Mother to a 16-year-old boy).

A total of 109 respondents agreed, while only 11 disagreed that cost was a factor that limited their uptake. The other identified barrier is the lack of sufficient information about the availability and the need for these services. One of them responded,

> "*All the symptoms that I had studied in class pointed me towards having contracted HIV/AIDS but I tried as much as I could to ignore that that was my results, until when it got worse and I disclosed to my parents"* (18-year-old girl).

A total of 70 participants agreed that they lacked sufficient knowledge on the availability of these services, while 50 disagreed that knowledge was an issue. Therefore, knowledge was only a factor in a small majority of the population. Inconvenience owing to commitment to school work and chores at home was another important barrier identified in the population as captured in the voice below:

> "*I am in a boarding school, sometimes as a result of the rush in school, I may forget about the medication only to remember after three days have elapsed. Sometimes it is not just about forgetting but it is about the fear of taking the medication. In as much as we may have campaigns that have created awareness about HIV and how the patients ought to be taken care of, there are still people who are committed to spreading stigma including my classmates."* (19-year-old girl).

Another adolescent who was in a day school noted thus:

> "*I have gotten used to accessing and up taking HIV service since that is what has kept us since our parents left us young. Major challenges to me is about accessing the services when they are depleted. I have a key responsibility of taking care of my siblings as well as attending to my school. These things may end up keeping me too busy to even respond to the outcry and other commitments to ensure we are taking drugs on time"* (a 18 year old orphan girl).

A total of 105 adolescents agreed (41 strongly agreed, 64 agreed) that inconvenience was a barrier compared to only 15 who disagreed (8 agreed, and 7 strongly disagreed). Answers from the open-ended questions addressed the barriers to health-seeking behaviors. One of the major barriers is the fear of condemnation or stigma from society.

> *"I had to keep it secret from my closest friends for me to keep being sane, for sure, once some of them discovered that I was positive, they naturally distanced themselves from my company" (*18-year-old boy).

> *"It was not easy learning that I am positive, I kept it secret for two years before finally opening up and telling my friend"* (17-year-old girl).

> *"The greatest battle I faced as a victim was not the epidemic or the disease, the greatest of them all was the fear of losing all my relationships"* (19-year-old girl).

The second most common barrier was the attitude that HIV and SRH-related issues are embarrassing. Therefore, most would prefer to avoid seeking HIV-related services unless it is very necessary.

Some respondents noted as follows:

> *"I had attended many sessions about HIV and AIDS all the way from primary, to secondary, I knew I am sick but I preferred never to come to the confirmation that truly what I knew was true"* (19-year-old boy).

> *"The time my parents died in quick succession, I strongly had a feeling that I was a victim but I preferred not to come to terms with that knowledge. This changed the time I was admitted in the hospital because the doctors had to establish the cause and effect and there, the news was broken to me"* (16-year-old girl).

The main attitude among adolescents is that they prefer being unaware of their status as long as they are not ill. Therefore, the study findings provided an understanding of these perceptions and attitudes among adolescents.

One very positive response that changed the tone of responses was from this nineteen- years old teenage boy who said:

> "*After coming to the full realization that my parents died of HIV and AIDS, I took it as a personal responsibility to know my status and access the services if possible. Luckily, I tested negative."* (19-year-old boy).

4.4.2. Discussions & Interpretation

From our findings, the leading causes of barriers to health seeking behaviours among the adolescents were mainly stigma, fear, inconveniences and negative attitudes. These factors accounted for major reasons why the youth absconded from seeking healthcare services in regards to HIV. A good number of them had feared going for the services because they could not withstand the stigma they would receive from the society. Others had fears of accessing the HIV related services because of economic incapacities and the daily inconveniences caused.

Compared with other population groups like adults, adolescents have many barriers to health-seeking behaviors. Some of the major barriers to their access and uptake of HIV prevention

include perceived negative attitudes of nurses and the community, impacts of peer pressure, lack of services in times that they can access like on weekends, long queues and waiting time, and knowledge, among others (Allegri, et al., 2015). The study similarly noted that these are the major barriers to uptake and access to health care for adolescents in Kawangware. Most of the participants, more than half, agreed that long waiting time at the facilities was the major hindrance to their health-seeking behaviors. A total of 96 of the 120 adolescents who took part in the study agreed that the attitude of healthcare workers was another hindrance to them going to healthcare facilities. Poor attitudes include perceptions that adolescents should not be seeking some services. Cost of care is another major impediment to adolescents seeking health care services that are needed to avert the cases of HIV. Lack of sufficient information like where these services can be accessed, when to seek these services, and who should go for these services was noted as major impediments. As a result, the majority of adolescents have ended up not getting tested for HIV or getting PEP and PrEP medications when they are exposed to the virus.

4.5. SRH Education and impacts on access, utilization and Ingression of HIV-related services among Adolescents in Informal Settlements

Taboos and stigma interconnected to sexuality of teenagers are usually worsened by those laws that are restrictive. Most adolescents in the study area,,,,lack education and have poor access to SRHR because the existing laws and guidelines have glaring gaps in definitions and the strategies employed are not fully accommodative of adolescents' needs. As a result, they engage in sexual behaviors without minding the outcomes and don't seek SRHR services (Ngilangwa et al., 2016). In this study, we major on the perception of the service providers in executing their duties.

4.5.1. Service Providers' Perception

Key Informant interviews were conducted with the healthcare providers within the healthcare systems in the three wards in Kawangware. The factors teased out in the interviews included the perceptions on offering services regarding SRH and comfort levels. Four (4) of the health care providers did not view adolescents and teens as people needing to use the resources because they were too young.

> *"I have a very big problem when an adolescent parades himself as one who needs to access services related to HIV/AIDS because they are too young for "adult stuff"* (A Nurse at a facility).

In addition, 6 of the health workers who took part in the study felt uncomfortable providing the services to the adolescents, especially those who were below the age of 18 years. While another 7 of the healthcare workers suggested that they would think twice when administering either PEP or PrEP medications to the individuals below the age of 18.

Therefore, the results and findings from the key informants show that health care providers have divided support for SRH particularly concerning the adolescent population. This lack of total support accompanied by the other barriers that lie with the adolescents in the informal settlements due to their perception and attitudes and socio-cultural barriers become a real stumbling block. It was, however , noted that some key informants disconfirm some of the voices of the respondents, such as the long waiting times at the facilities. The health care providers claim that they offer minimal SRH services that would not result in long queues or waiting times.

Regarding sex disaggregated data on who seeks more information and healthcare services, the health workers reported that more girls than boys are tested for HIV. In SRH programs, girls are more likely to take up these programs than boys. The use of contraceptives and male condoms are also taken from facilities much more by girls than boys.

Overall, 15 of the 20 healthcare workers who participated agreed that the healthcare facilities in the region were not adolescent-friendly. A deep understanding of the lack of adolescent-friendly facilities means that most facilities lack elements such as guidance and counseling for adolescents. The facilities mainly provide general HIV-related services that have no specification on age. Adolescents require a proper and sensitive approach to SRH matters. The health providers in these facilities should avoid any form of attitude or condemnation against irresponsible sexual behavior. Most adolescents fear stigma from the community at large and health facilities' health providers in particular.

4.5.2. Discussion and Interpretation

As noted, factors associated with health care workers also play a major role in the access and uptake of HIV-related health services. The perceived health workers' inability to maintain confidentiality and fear of HIV-related stigma prevents many people from seeking the services (Musheke, et al., 2013). However, the healthcare workers' perceptions also play a role in the uptake and access to HIV resources. For example, the social workers may perceive that those adolescents should not be sexually active and scold them. HIV and SRH matters are often associated with being ill-mannered. Therefore, in society, when an individual seeks these services, they are often considered a bad influence. However, the adolescent period is considered a sensitive transition where emotional and rebellious attributes are portrayed. Therefore, health workers should ensure proper and adolescent-friendly approaches when dealing with adolescents seeking HIV-related services. The study found that the healthcare workers did not perceive that the adolescents deserved to receive SRH services. They did not perceive that the adolescents should have access to contraceptives or condoms as they are not supposed to be sexually active. It can be noted that a majority of the healthcare workers who took part in the study expressed that they were uncomfortable providing these services to adolescents despite the fact that they were in need of the services. The health service providers

would think twice before providing PEP or PrEP medications to adolescent clients. The other important factor in the prevention of HIV is the availability of adolescent-friendly health services. The healthcare workers who took part in the study did not feel that Kawangware had adolescent-friendly health services. These are factors that have adversely affected access to these services among adolescents. Reforms in the health sector must therefore, take cognizance of the plight of the youth and the circumstances in which they operate.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

As much as there has been creation of awareness on the issues of HIV and AIDS, there still exists some loopholes as far as addressing the gaps that prevent the young people from accessing the needed services is concerned. The young people have had a share of pain and struggle in accepting their status and battling the condition of living with HIV and AIDS. The battle line has been enshrined in societal perception about the disease which consists of stereotypes and the misconceptions about the disease.

Some connect the disease to the immoral lifestyle for they only believe that it can be contracted through unprotected sex. As established in this paper, there are many gaps existing that have not been addressed. These gaps have remained as major barriers to these young people accessing medical care as far as HIV related services are concerned.

5.1. Summary

The research established that adolescents living in informal settlements experience barriers that prevent or impair their access and uptake of HIV-related services. Therefore, a strong association between the increased vulnerability of adolescents to HIV infections and the poor access and uptake of HIV-related services requires intensive remedy. The barriers result from socio-cultural factors affecting adolescents' health-seeking behaviors.

The results and findings answer the first objective that strategies and guidelines exist to promote access and uptake of HIV-related services. However, these strategies and guidelines are often structured for the general population, where adolescents are often forgotten. Adolescents in these informal settlements are more independent and often make decisions that would require counseling from parents, teachers, or health providers.

Regarding the individual and structural impediments, the results indicate that the system right from the family level to the community and society at large have expectations that do not

involve sexual activeness of the adolescents. This therefore, implies that there exists minimal if any sexual and reproductive health education that can enable the adolescents to understand their body functions. This lack of comprehensive sexuality education makes it impossible for young people to have the knowledge necessary for informed action.

The socio-cultural barriers and the rigid environment in which the adolescents operate limits their capacity to access the necessary services. This in essence means that the access and uptake of the HIV related services are not just limited but burdensome to the young population.

5.2. Conclusions

The adolescents from different households have different reasons that limit their access and uptake of HIV-related services. In addressing the first objective of the study, there exist major HIV health facilities established in the settlements. However, the effectiveness of these facilities is not met due to minimal utilization from adolescents despite the high contraction rates.

These facilities that exist are not adolescent- friendly. About 55-67% of the SRH services providers do not offer the adolescent responsive services in the country (Mutea et al., 2020). It is also noted that informal settlements are lagging behind in the appropriate healthcare services compared to other places in the country.

The adolescents are still under the age of minors. That would mean that they are accountable to their parents from time to time. The young people need privacy especially in handling their issues for they still deal with issues of stigma in their life. This study has agreed with that of Ngilangwa et al, 2016 that noted that though we have different materials for the adolescent, they are not age specific. Accordingly, there is a limited understanding on how the structural determinants and approaches can aid in improving the population health influence of the adolescents. This study proves that the awareness creation has been discriminatory towards the youths, with a leaning from the clinicians, and other health providers. Culture has been used as

a deterrent from providing adequate and the necessary sexual and reproductive health education to the youth.

Most adolescents have little or no awareness or education about HIV or SRH, making them vulnerable to HIV contraction. However, some of the adolescents who have received SRH education still fail to prioritize their health and engage in risky behaviors.

It is also noted that socio-economic status provides limited options to the families living in this informal settlement. Therefore, adolescents are more likely to engage in livelihood activities that may be risky to HIV infection and may also lack the resources necessary to visit the clinics regularly. Therefore, the study concludes that various individual, structural, and community aspects come into play as barriers to the access and uptake of HIV-related services.

5.3. Recommendations

The issue of policies and programmes that exist need to be implemented and closer monitoring undertaken to see how this meets the youth and adolescents needs. The provision of adolescent-friendly HIV services must be prioritized and measures put in place to ensure compliance. The higher rates of girls with HIV infection or vulnerable to infection also show the need for deeper and new strategies for adolescents' HIV-related services particularly targeting the vulnerable girls. There is still a need to create adolescent- friendly HIV related centers which can be enacted by deliberate efforts of talking and training the clinicians on the best appropriate ways of handling the adolescent.

The need for the provision of comprehensive sexuality education seems urgent as the best remedy to dealing with ignorance. Education and awareness for adolescents in informal settlements will go a long way in enabling the adolescents to take action in time. Awareness and presence of client-focused services would greatly improve the access and uptake of HIV services among adolescents. The findings show that informal settlements lack adolescent-specific services or engagements that promote the access and uptake of HIV-related services.

There is need for reform at the community level where extensive awareness creation will reduce the stigma associated with the HIV related services. The stigma exposes the adolescents and makes them feel neglected, hence forced to make decisions without a proper understanding of the implications or consequences of their actions. To adequately respond to adolescent needs, the relevant stakeholders and sectors should ensure that they are involved in identifying programming needs, setting goals and objectives, and designing and testing materials and delivery systems using peer-to-peer approaches.

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APPENDICES

Appendix i: Consent Form

Esther Muhia here, and I am a student at the University of Nairobi pursuing a master's degree in gender and development studies. I am now gathering information for my academic research project. In the Dagoretti sub-county of Nairobi County, I am conducting research for a project titled "Barriers impacting access and uptake of HIV-related services among adolescents aged 10-19" in the Kawangware informal settlements.

The purpose of this interview is to gather information from young people who are intended to use and access HIV-related services. Because you fall under the description of the population being studied, you have been chosen for this study. Since this will not be used against you in any way, kindly feel free to express your opinions in an open manner. If a question makes you feel uncomfortable, feel free to ask me to end the interview. The information will enable me to evaluate the obstacles preventing teenagers from using HIV-related services. The results of this study may be published because they will be essential for advancing our understanding of the field and for supplying information to implementers and policymakers so they can make decisions based on the best available evidence.

The participants receive no immediate advantages. By revealing the obstacles preventing teenagers from obtaining services, the study will be helpful to the community, service providers, and the community at large.

Your answers will be kept totally confidential and will only be used for the mentioned purposes; the interview will last about an hour. Do you give me the go-ahead? Are there any inquiries you have regarding the interview? If there are no objections, may you kindly let me start? Keep in mind that if you feel uncomfortable during the interview, you can leave at any time.

Consent

I have received explanations regarding the study's objectives and information confidentiality.

By signing, I concur or disagree to take part in the study.

Participant’s signature…….

Parent/guardian signature…….

Interviewer’s signature……

Appendix ii: Questionnaire for Adolescents

Esther Muhia here, and I am a student at the University of Nairobi pursuing a master's degree in gender and development studies. I am now gathering information for my academic research project. Please respond to the following inquiries so I can collect data for my project. This data will only be used for this course and will be kept completely private. Additionally, participation is voluntary; if you feel uncomfortable, you are free to leave the interview.

Interviewee's signature: ……

Date: …….

Part A: General Information

1. Sex
   - Male
   - Female
2. Ward
   - Gatina
   - Kawangware
   - Kabiro
3. Age
4. Highest Level of education:

Part B: Information relating to access and uptake of services among adolescents

1. Have you ever accessed any HIV-related services (information, testing, care, and treatment) for the last three years?
   - Yes No
2. If not, what are some of the reasons why you do not seek HIV-related services?
3. Do you feel that chores and school work inconvenience you from accessing HIV-related education or services?
4. In your opinion, are the health facilities near you offering adolescents-friendly services for HIV prevention, care, and treatment?
   - Yes No
5. If your answer is no, why do you think they do not offer HIV-related adolescents-friendly services?

6. What are the main sources you obtain information on HIV services?
7. If you are a student, does the school provide HIV information on prevention, care, and treatment?
8. If you are a student, are there any school-based strategies that encourage you as an adolescent to access and utilize HIV-related services?

Part C: health-seeking behaviors, social and cultural determinants among adolescents

1. In your opinion, what are some of the characteristics that influence your uptake of HIV-related services?
2. What are some of the societal factors that hinder you from seeking HIV-related services?
3. On a scale of 1 to 5, how do the factors listed below affect the uptake of HIV-related services among adolescents
    - Religious beliefs
    - Community beliefs
    - Peer pressure
    - Norms
    - Attitude and perceptions

Part D: Health service influencing factors

1. In your opinion, how do the following health service factors affect your uptake of HIV-related services on a scale of 1 to 5?
    - Ease of access to HIV information, testing, care, and treatment
    - Confidentiality
    - The attitude of health staff
    - Adolescent friendly services
    - Privacy
2. From the rating above, please elaborate on your two health service factors that scored the lowest
3. What would an ideal Health facility offering adolescents-friendly services look like?

Part E: Recommendations

1. What are some of the changes that would contribute to improving your access and uptake of HIV-related services?

2. What is your role in changing your health-seeking behaviours to ensure you access HIV-related services?
3. As an adolescent, what would you recommend to health providers and the community at large on improving access and uptake of HIV-related services?

Appendix iii: Key informant guide

My name is Esther Muhia, and I am collecting data for my academic research paper to enable me to fulfill the requirements of my Master's degree in Gender and Development Studies at the University of Nairobi. My request is for you to answer the following questions to enable me to get data for my study. This information will be used for this course and will be kept strictly confidential. Participation is also optional, and you are free to withdraw from the interview if you feel uncomfortable.

Interviewee's signature: ……

Date: …….

1. In your opinion, are there any HIV-related services implemented in Kawangware informal settlements for adolescents ?
2. If yes, how are adolescents discriminated against by the SRH-education and awareness materials and resources?
3. In your opinion, what are some of the gaps you have noted in the strategies and implementation plans
4. How can you describe the level of access and uptake of HIV-related services among adolescents in Kawangware informal settlements?
5. In your view, what are some of the factors affecting the uptake and access of HIV-related services among adolescents?
6. In your opinion, how do health-seeking behaviours among adolescents affect their access and uptake of HIV-related services?
7. How do social-cultural factors influence adolescents' health-seeking behaviours
8. In your opinion, are HIV-related services accessible to all adolescents?
9. Are the Health service providers trained on how to offer adolescent-friendly services, specifically HIV-related services?
10. What is the role of health service providers in improving access and uptake of services among adolescents?

Recommendations

11. In your opinion, what are some of the recommendations you would give to address the gaps in policies, plans, and strategies in relation to adolescents' access and uptake of HIV-related services?
12. What would you recommend to health providers to help change the adolescents' health-seeking behaviours and improve access and uptake of HIV-related services?