ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XI Issue XV October 2024 | Special Issue on Public Health

# Key Populations and HIV Response: Case Study of Sub-Sahara Africa

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**DOI: https://doi.org/10.51244/IJRSI.2024.11150038P**

**Received: 02 September 2024; Accepted: 01 October 2024; Published: 18 November 2024**

## ABSTRACT

**Background:** The key populations contribute substantially to the HIV infections. It is on record that HIV affects key communities disproportionately throughout the world. In SSA, for instance, 70% newly diagnosed HIV cases in 2021 were related to key populations and their sexual partners. Also, in the region, studies revealed that 30% of people who inject drugs are estimated to be living with HIV.

**Method:** Materials containing HIV interventions of all kinds were included in a desk evaluation of the body of research conducted which constituted the study's methodology.

**Results:** The study unearthed importance policy decision requires to in a bid to contain the spread of the new HIV transmission and acquisition among the key populations. Importantly, reducing the spread of HIV among KPs requires engaging hard-to-reach communities and offering client-centered care through community-led programs. This can be done by using diversified service delivery models to provide HIV prevention, testing, and treatment services in a way that allows priority populations to get them without facing discrimination and stigmatization,

**Conclusion:** Differentiated service delivery led by the KPs community, including policy reforms and divine interventions, are some of the strategies required to tackle the spread of the new HIV infections among the key populations and, by extension, the general population.

**Keyword:** Key population, Sub-Sahara Africa, HIV/AIDS, Health workers, stigma, discrimination,

## INTRODUCTION

In a review by [1] maintained that sex workers, homosexual men and other males who have intercourse with men, transgender individuals, injecting drug users, and inmates and other confining environments are among the Key Populations (KP). HIV affects important communities disproportionately throughout the world. Seventy percent of newly diagnosed HIV cases in 2021 were related to critical populations and their sexual partners. They experience disproportionately high rates of stigma, discrimination, violence, violations of human rights, and criminalization. They also have unequal access to safe, effective, and high-quality HIV services. They are unable to receive the necessary care because of major obstacles like discrimination in society, harassment by the authorities, and a lack of community-based resources.

Sub-Saharan Africa has been hardest hit by the worldwide HIV epidemic (SSA). SSA accounted for around 67% of the 38.4 million persons living with HIV (PLWH) worldwide in 2021. Of the 1.5 million new infections and 280,000 AIDS-related fatalities reported worldwide in 2021, 670,000 were linked to the SSA. In 2021, there were 70% of new infections recorded worldwide that affected critical groups and their spouses. In 2021, 51% of new infections in SSA were caused by generalized populations [2].

Population concentrations known as key populations (KPs) are those who have a higher risk of HIV infection, viral hepatitis, or sexually transmitted infections (STIs) as a result of certain higher-risk behaviors and other structural factors [2]. Men who sex with men (MSM), drug injectors (PWID), sex workers, transgender women

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(TGW), and inmates and other confining environments are among them. KPs encounter a number of difficulties, such as societal and legal problems pertaining to their actions that make them more susceptible to HIV infection [3].

Drug injectors had a ~35-fold increased risk of HIV infection compared to non-injecting adults, 30 times higher risk for female sex workers compared to adult women, 28 times higher risk for MSM compared to other adult men, and 14 times higher risk for TGW compared to other adult women [2]. By interacting with the general public, KPs contribute to the spread of HIV and so intensify the epidemic. Controlling HIV among KPs is essential to stopping the epidemic. In light of this, we go over some of the factors that contribute to HIV transmission among KPs in SSA and suggest risk-reduction tactics [3].

Most Sub-Saharan African nations do not recognize and forbid the homosexual behavior. As a result, they function behind closed doors, which restricts, impedes, and limits their access to healthcare services—particularly when considering front-line healthcare providers. As a result, KPs spread HIV infections within their circles and to the broader public much more quickly [2]. This leads to reluctance in getting medical help for fear of being reported to the police. Their risk of HIV infection is increased because they are less likely to receive services such as HIV post-exposure prophylaxis (PEP) [9].

**Factors that contribute to HIV infection in key populations**

We need to acknowledge that one of the main causes of the HIV epidemic in SSA is HIV transmission among KPs. By definition, there isn't a single, universally applicable way to address the problem. It is necessary to implement multipronged, multisectoral interventions, which are predicated on comprehending the key variables that impact HIV infection in the various KP groups. Even though there may be a lot of overlap, certain of the transmission drivers are particular to certain KP groups.

**Men who have sex with men**

Studies in South Africa, indicated that HIV prevalence was found to be 27% and 11% among MSM compared to 17% and 5% among males who had sex with women exclusively. HIV acquisition and transmission in MSM are associated with a number of risk factors, including those that are individual, biological, community, health system, and structural. The individual characteristics that increase the risk of HIV transmission among MSM are the number of lifetime male partners, some of whom may be contemporaneous, low condom use, and high injection and non-injection substance use [5]. MSM have a higher chance of contracting HIV due to the rectum's thin lining, which is prone to laceration during anal sex, and the rectum's higher density of macrophages expressing CCR5 receptors than the vagina [7]. This explained the higher risk of HIV transmission during unprotected receptive anal contact is nearly eighteen times higher than during penile-vaginal sex [8].

The sexual lifestyles and activities of the MSM limit the use of condoms and lubricants compared to heterosexual couples. Additionally, because condoms might rupture during anal sex, there is a higher risk of HIV transmission than during vaginal sex. Due to their fear of rejection from friends and family and public exposure in fear of being caught and face the consequences of the law, many MSM are hesitant to seek STI treatment [9]. Due to fear of stigma and discrimination from health workers, friends, and neighborhoods, MSM are more likely to contract HIV when they have intercourse with untreated STIs, including delays in the initiation of antiretroviral therapy (ART), which cause a high viral load and increase the risk of HIV transmission [10].

**Transgendered People**

People who identify as transgender are those who are born as male but prefer to live as female, or who are born as female but live as male, or both. Some transgender people must have medical procedures that alter their bodies to better fit their gender identity. They are able to create the changes by medical treatment, which includes hormone therapy, surgery, and other human-made interventions, rather than through a natural process. HIV infection is a major risk factor for transgender individuals, especially transgendered women (TGW). The increased risk has been linked to unprotected sex, sex work, and the use of contaminated needles for illicit hormone injections [11]. As homosexuality is prohibited and illegal in Sub-Saharan Africa, people who need

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XI Issue XV October 2024 | Special Issue on Public Health

hormone injections but cannot get them from public healthcare facilities opt for illicit injections, which puts them at risk of HIV transmission through sharing infected needles. They also experience sexual assault and rejection in the area [9]. Convincing their partners to use condoms can be challenging for some TGWs due to their low self-esteem stemming from experiences with gender-based discrimination, abuse, victimization, rejection, and social marginalization [10]. TGW have extra obstacles in receiving STI and HIV services, such as criminalization, stigma, discriminatory regulations, and prejudice by health workers (HWs), because the HWs could lose their jobs if they are seen providing treatment to the TG people [10].

**Sex workers**

Sex works entails exchange of sex for monetary rewards where females exchange sex for immediate returns. There is high STIs prevalence among the female sex workers, which increase the risk of acquiring HIV infections. Sometimes certain clients of the FSWs may prefer unprotected vaginal and anal sex once they are ready to pay the fee; hence, the FSWs often lose the power to negotiate a safer sex through the consistent and correct use of condoms [12]. FSWs experience disruption or inflammation of the vaginal mucosa in a bid to keep their vagina dry so as to offer sexual satisfaction to their clients. They utilize vaginal washing techniques, which increase the risk of HIV transmission [13]. Additionally, injectable and non-injectable drug use, which results in drunkenness and may lead to unprotected sex, is more common among FSWs [14]. Since most SSA do not have legal barking laws for sex work, victims of sexual abuse are unlikely to seek medical attention for fear of being denounced to the authorities and put in jail. Additionally, FSWs are less likely to seek HIV care due to HCWs' judgmental attitude, which raises the risk of HIV transmission among them [15].

**Inmates**

[17] observed that in west and central Africa, HIV prevalence among women in prison is estimated at 13.1%, compared with 1% among men in prison. In the region, it is against the law to engage in sexual activities such as sex work, homosexuality, or injecting drugs, offenders are locked up, which results in an overrepresentation of the relevant demographics in prisons. When inmates are released from jail, this may result in a rise in HIV infection and transmission both inside the prison and to the outside community [9]. In most prisons in SSA, overcrowding is a regular occurrence, and poor living conditions, including inadequate food and hygienic conditions, result in inadequate supervision of the convicts and an increase in drug usage, infighting, thuggery, and other homosexual-related behaviors, which further increase risk of HIV acquisition among the inmates [16]. When it comes to injectable drug addiction, prisoners typically share sterile needles because they don't have a sufficient supply. Due to the lack of sterilizing supplies, prisoners share tattoo equipment, which increases their risk of contracting HIV. Violence can expose people to blood without protection [16].

Some prisoners use the strong demand for basic hygiene products like toothpaste, toothbrushes, and soap as a means of bartering unprotected sex. Furthermore, it is typical for inmates in SSA to share toothbrushes and razor blades. The lack of accessibility to condoms and other STI and HIV services in prisons compared to the broader public increases the risk of HIV transmission among inmates [16].

**Drug Injectors**

In SSA, studies revealed that 30% of people who inject drugs in the region are estimated to be living with HIV [17]. In the area, opioids are the most often injected substances, followed by cocaine and tranquilizers.[18] Up until now, heroin and cocaine have been widely used throughout the continent; the largest rates of cocaine usage are found in West, Central, and Southern Africa, while the majority of heroin use is found along the coast of East Africa, mainly in Kenya, Mauritius, Seychelles, South Africa, and Tanzania.[18] Most sub-Saharan African nations have made drug use illegal, and law enforcement agencies pursue drug users. The government's stance on psychoactive substances reflects a political desire to restrict the availability of narcotics. Resources for harm reduction are frequently restricted by national and regional drug policies, which are influenced by the US, UN agreements, and the interests of other governments. However, in West Africa, there has recently been a movement towards more evidence-based and humane policy responses. [19].

Furthermore, substance addiction has been linked to unsafe sexual activity. People are less likely to use condoms

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XI Issue XV October 2024 | Special Issue on Public Health

during sexual activity when they are drunk [8]. Women who inject drugs do not have control over the injection supplies because they rely on their sexual partners to provide them. Additionally, people who inject drugs typically share used needles since most SSA countries lack needle exchange programs, which raises their risk of HIV infection [14].

**How to lower HIV infections in key populations**

Differentiating services and support an all-inclusive service package, policies reform, promoting socioeconomic empowerment, expanding access to HIV care, and involving KPs and their communities including divine intervention are some among other strategies and initiative that can be utilized to stop HIV transmission among KPs in the SSA and rest of the world.

**Differentiating services and support an all-inclusive service package**

In order to guarantee that barriers to service access are addressed, it is important to differentiate prevention, testing, care, and treatment services for key populations and to integrate services (such as mental health, STI, family planning, TB, and other services) to promote health equity [1]. Reducing the spread of HIV among KPs requires engaging hard-to-reach communities and offering client-centered care through community-led programs. This can be done by using diversified service delivery models to provide HIV prevention, testing, and treatment services in a way that allows priority populations to get them without facing discrimination [1]. [1] supports alternate pick-up sites, like one-stop shops that offer community-based treatment initiation and refills in addition to testing and other services, drop-in facilities, online and personalized outreach and case management, and other strategies to increase access to treatments. [1] programming incorporates interventions aimed at preventing and responding to violence, addressing discrimination and stigma, fostering enabling policies, promoting legal literacy, and supporting the provision of competent care and sensitization of healthcare workers.

**Health interventions**

The health interventions for the KPs include: condom and lubricant programming; harm reduction interventions; behavioral interventions; HIV testing services; HIV treatment and care + pre-exposure prophylaxis (PrEP); prevention and management of viral Hep, TB, and mental health conditions, sexual and reproductive health interventions [1]. Healthcare workers training can improve availability and accessibility by preventing discrimination against KPs [20]. To improve access to HIV care and treatment services, HIV services should be combined with other medical services like STI testing and treatment [21].

**Structural interventions**

HIV counseling and testing are crucial in order to ascertain an individual's HIV status and promote a tailored lifestyle and behavior that is consistent with HIV prevention for both key and general populations. The structural interventions for the KPs are supportive legislation, policy, and funding; addressing stigma and discrimination; community empowerment; addressing violence and ensuring the safety and security of HIV implementers [1].

Communities' engagement and public knowledge of KPs will contribute to ensuring that key populations have a certain degree of human threshold tolerance within the communities. As a result, there will be less stigmatization and discrimination against KPs, which will lessen violence and sexual abuse against them. When they are accepted by their families and communities, they will be able to obtain the assistance they need to take antiretroviral therapy (ART) and prevent HIV from spreading [12]

**Policies reform**

SSA countries should have some level of threshold tolerance for sex worker, homosexual and transgendered people in order to give make them come out of the quagmire of carved out customized and personalized sexual activities. The human threshold tolerance will lessen the discrimination and stigma throws at the KPs and increase their access to healthcare services, psychosocial support early.

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Once the viral load is undetectable, early access to HIV care and treatment will prevent transmission to their partners [8]. Decriminalization may also lessen the likelihood of violence and sexual abuse experienced by these groups because they will be free to report offenders to the authorities without worrying about being detained. Partner groups providing HIV prevention services may find it easier to reach the public once a policy decriminalizing KPs' operations is in place [20]. While policy reform is a vital component in reducing HIV incidence among KPs, it is still difficult in most SSA nations because policymakers fear alienating religious communities who view the behaviors of key populations as immoral and lose of their sanity and minds.

**Economic Empowerment**

Most of the SSA countries have significant rates of poverty, and people are frequently compelled to engage in dangerous activities in order to survive financially. Studies carried out in Africa, Asia, and South America showed a larger association between wealth inequality and an increased risk of HIV [22]. According to [23], having multiple partners, starting a sexual relationship earlier, using condoms less frequently during the most recent sex act, the likelihood of a first sex act that is not consented upon, and the likelihood of transactional or physically coerced sex are all associated with lower socioeconomic status. Teenage females are routinely compelled to have sex with older men in order to survive, and many women resort to transactional sex in order to make ends meet. Young Malawian women in secondary school who received cash transfers showed that these payments could encourage women to reduce their dangerous sexual activity including getting involve in the KPs activities [24].

Enhancing the financial circumstances of the youth in Africa can significantly lessen the prevalence of sexual activity among key populations and encourage behavioral changes directed at KPs. Encouraging KPs to engage in income-generating activities for self-economic reliance and financial independence from the negative influence of the money-baggers, who are the promoters and sellers of homosexual and transgender people, is one way to achieve improved economic conditions. Other ways include providing seed funds and life skills training for those into KPs activates due to economic reasons. Ensuring the accessibility of drug rehabilitation facilities in the area could be advantageous for PWID. Moreover, PWID needle exchange programs could guarantee that they avoid sharing needles, which is one method that they can contract HIV [14].

**Divine Interventions**

Both medical professionals and psychotherapists are capable of providing conventional medication and physical healing. For example, condoms are used for HIV prevention, including pre- and post-exposure prophylaxes to combat HIV new infections, while antiretroviral therapy (ART) is used for HIV treatment. Even while science and technology have progressed to raise the worldwide standard of living, science is still unable to heal the sin sick souls of people everywhere. Divine intervention will be necessary for the sin sick souls of the human race to be healed and delivered [26]

## CONCLUSION

In any particular population, the HIV epidemic is made up of several sub-epidemics that combine to form the composite epidemic. All generalized epidemic contexts contain concentrated sub-epidemics, and tackling the subpopulations inside these component epidemics will probably be essential to significantly lowering incidence at the population level. For instance,

In SSA in 2021, key demographics accounted for approximately half of all new HIV infections. Controlling the HIV epidemic in SSA requires an understanding of the risk factors and the implementation of solutions to effectively address them. As a result, it is critical that the various pertinent parties engaged in HIV control recognize HIV transmission among KPs as a global health emergency and move quickly to implement control measures. We offered methods in this post that can be applied to lower HIV transmission among KPs [25].

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