

Mini Review

Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome in Uganda: A Mini Situational Review

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ABSTRACT

Globally, human immunodeficiency virus (HIV) infection is a major public health concern and several countries continuously lay down strategies to contain this pandemic. In Uganda, the government is committed to putting an end to new cases of HIV transmission. According to the latest Joint United Nations Programme on HIV/AIDS (UNAIDS) estimates, since the start of the global HIV/AIDS pandemic, over 75 million people have been infected with HIV and over 32 million people have died from acquired immune deficiency syndrome (AIDS) related illnesses. As of June 2021, UNAIDS estimated that globally, there were about 38 million people living with HIV (PLHIV) with the East and Southern African countries, home to 700 million people, contributing 45%. Uganda has an estimated 1.4 million people living with HIV of which 1.3 million are currently on treatment (Ministry of Health (MoH) Annual Estimates 2021). The country has registered a 37% decline in AIDS annual related deaths, from 27,000 in 2016 to 17,000 in 2021. New HIV infections in 2021 stood at 54,000. This review will highlight some of the efforts put in place to ensure that by 2030 AIDS will not be a public health threat to Ugandans.

Keywords

HIV/AIDS; Uganda; Strategies; Situational analysis.

INTRODUCTION

Although Uganda has been one of those countries affected by the human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) epidemic, with an estimated 1.4 million people living with the virus as of 2020. Uganda has now made significant progress in addressing the HIV epidemic, resulting in a decline in HIV prevalence from 7.3% in 2011 to 5.9% in 2020. This success is attributed to several innovative strategies to fight the spread of HIV, including the elimination of transmission from mother to child, efforts to enhance uptake of antiretroviral treatment (ART), which can halt the replication of HIV and ease symptoms, turning AIDS into a chronic condition instead of a rapid terminal illness. This mini review aims to provide an overview of the strategies that are currently in place to enable the country realise a positive response to epidemic. Among the strategies in place include those targeting prevention, treatment and care as discussed in the following sections.

METHODOLOGY

A systematic search of the literature was conducted using PubMed, Embase, and the Cochrane Library. Boolean search terms used included “HIV”, “AIDS”, “Uganda”, “prevalence”, “incidence”, “treatment”, “prevention”, “care”, and “interventions”. Only studies published in English from 2010 to 2022 were included. After screening titles and abstracts, the following inclusion criteria were used:

Inclusion Criteria

1. Studies published in English
2. Studies that examined strategies to contain HIV prevalence, incidence, risk factors, prevention, treatment, and care in Uganda
3. Studies that were conducted in Uganda or included data from Uganda
4. Studies that were published between January 2011 and December 2022

Exclusion Criteria

1. Studies that were not published in English
2. Studies that did not focus on HIV in Uganda
3. Studies that were conducted outside of Uganda and did not include data from Uganda
4. Studies that were published before 2011

Two reviewers independently screened the titles and abstracts of the studies to determine eligibility for inclusion in the review. Any discrepancies were resolved through discussion and consensus. The full text of the selected studies was then reviewed, and data was extracted using a standardized data extraction form.

RESULTS

The search identified 982 studies, of which 372 were duplicates. After screening the titles and abstracts of the remaining 610 studies, 225 were excluded based on the exclusion criteria. The full text of the remaining 385 studies was reviewed, and 49 studies met the inclusion criteria for the review. Findings are presented below according to themes.

HIV Prevalence and Incidence

Through the multiple strategies to combat HIV/AIDS, the prevalence of HIV in Uganda declined from the high of 18% in the 90s (Uganda AIDS Commission 2020)¹ to 7.3% in 2011 and now to 5.9% in 2020, according to the Uganda Population-Based HIV Impact Assessment (UPHIA) survey conducted in 2020.² The survey also found that the HIV incidence rate among adults aged 15-64-years was 0.32%, indicating a decline from the 2016 incidence rate of 0.52%. However, certain population groups continue to be disproportionately affected by HIV, including women, young people, and key populations such as men who have sex with men, sex workers, and people who inject drugs.

Risk factors for HIV: Several risk factors contribute to the spread of HIV in Uganda, include unprotected sex, multiple sexual partners, early sexual debut, transactional sex, and lack of access to prevention methods such as condoms and pre-exposure prophylaxis (PrEP). Stigma and discrimination also continue to be significant barriers to HIV prevention and treatment, particularly for key populations who face legal and social discrimination.

Epidemiology: The HIV prevalence in Uganda has been declining since the late 1990s, from a peak of 18.5% in 1992 to 5.6% in 2020.³ The decline in prevalence has been attributed to a successful multi-sectoral approach to HIV prevention, treatment, and care. However, HIV prevalence remains high among key populations, with an estimated prevalence of 37.4% among female sex workers, 12.7% among men who have sex with men, and 17.1% among people who inject drugs. The incidence of HIV in Uganda has also been declining, with an estimated 53,000 new infections in 2020, down from a peak of 139,000 in 1992.⁴

Prevention Strategies

As a country, Uganda, has had a long-standing history of fighting

HIV/AIDS traced back to the first reported case with AIDS in 1982. Four years after this first case, the president of Uganda started that national response to HIV by directing the establishment of a Uganda AIDS control program (UACP). The game changer with this national machinery was the gospel of openness coupled with the political will.⁵ Since then, the government of Uganda has and remains committed to the global response to HIV/AIDS, by implementing strategies and policies to combat this epidemic. This was confirmed during the 2022 anniversary celebration, when Dr. Nelson Musoba, the Director General of Uganda AIDS Commission committed that HIV/AIDS will not be public health threat to Ugandans by 2030.

The very recent is the presidential fast-track initiative (PFTI) launched in 2017 which aims to promote a multi-sectoral response involving all Ugandans in the fight to ending AIDS by 2030. To achieve this, men will be engaged in HIV prevention to reduce infections to adolescent girls and young women, enhance efforts to test and treat to attain the 90-90-90 targets, build on existing success of eliminate mother to child transmission, ensure financial sustainability and institutional effectiveness in coordination.^{1,4}

Furthermore, the national AIDS control programs structure provides the funding infrastructure through which government laid strategies to prevent the spread of HIV and AIDS are supported.³ Another preventive strategy started in the early 1990s is the “abstinence, being faithful, using condoms (ABC)” approach, which stands for abstinence, being faithful, and use condoms. This approach focused on promoting sexual abstinence, faithfulness in relationships, and condom use as ways to prevent the spread of HIV. All the three letters stand for intertwined components of this strategy. This approach was adopted by different actors such as in the born-again churches that innovatively coined the principal of glory of virginity movement (GLOVIMO) that encouraged youths and any unmarried persons to refrain from any sexual activities until they are married. Building on the pillar of A (abstinence).

In line with ABC, information was provided to the youth through media series in straight talk or young talk, condoms were freely distributed and public access points were created and refills maintained to encourage uptake of condoms. The ABC approach also showed the dangers of the pandemic and was widely promoted in Uganda. It also integrated the use of a rolling communication strategy with messages carried on posters, disseminated by all media houses in print, talk show programs on television and radio; plus, guest speakers visiting critical places with crowds such as community gatherings—at burials or weddings, schools and places of worship. The ABC strategy with the deliberately designed communication package was very effective and is credited for a significant reduction in HIV prevalence in the country.⁵

In addition to the ABC approach, Uganda has also implemented other prevention strategies, such as the use of male circumcision, which has been shown to reduce the risk of HIV transmission, elimination of mother to child transmission (EMTCT). The country has also made significant progress in the prevention of mother-to-child transmission of HIV, with over 90% of pregnant women living with HIV receiving antiretroviral therapy to

prevent transmission of the virus to their babies. HIV Prevention and Treatment Uganda has made significant progress in expanding access to HIV prevention and treatment services. The country has implemented a combination prevention approach, which includes behavioral interventions, condom distribution, HIV testing and counseling, and ART for those living with HIV. The 2020 UPHIA survey found that 80.9% of people living with HIV in Uganda were aware of their status, and 86.2% of those aware of their status were on ART. Voluntary testing and counseling were routine strategies.⁶

HIV prevention efforts in Uganda have focused on a combination of biomedical, behavioral, and structural interventions. Biomedical interventions include the provision of ART to people living with HIV to reduce viral load and prevent transmission, as well as the use of PrEP by HIV-negative individuals to prevent infection. Behavioral interventions include HIV testing and counseling, condom use, and reducing risky sexual behavior. Structural interventions include legal and policy reforms to reduce stigma and discrimination, and the provision of social and economic support to vulnerable populations. Despite these efforts, challenges remain in ensuring universal access to HIV prevention interventions, particularly among key populations. Several international and national organisations also joined hands in the prevention and fight against HIV/AIDS

Treatment and Care

Uganda has made significant progress in the provision of HIV treatment and care. Access to ART has been improving in Uganda. In 2020, an estimated 74% of people living with HIV were on ART. Uganda has also implemented innovative approaches to improve treatment and care, such as the use of community-based adherence clubs, which have been shown to improve treatment adherence and retention in care. Uganda was among the 14 countries in the world that achieved the “90-90-90 strategy”. This strategy stated that by 2020, 90% all people living with HIV will know their HIV status. By 2020, 90% of all people diagnosed with HIV infection will receive sustained antiretroviral therapy. By 2020, 90% of all people receiving antiretroviral therapy will have viral suppression.¹ In December 2020, UNAIDS released a new set of ambitious targets calling for 95% of all people living with HIV to know their HIV status, 95% of all people diagnosed with HIV infection to receive sustained antiretroviral therapy and 95% of all people receiving antiretroviral therapy to have viral suppression by 2025.

Despite these successes, challenges remain in the provision of HIV treatment and care in Uganda. Stigma and discrimination against people living with HIV continue to be a barrier to accessing treatment and care. In addition, there are also gaps in the provision of HIV testing and treatment services in some parts of the country, particularly in hard-to-reach areas.

Challenges to Effecting HIV/AIDS Management Strategies

Behavioral change has been slow and this is evidenced by increase of HIV cases among married couples an indication that partners are either not faithful in their relationships, have multiple sexual

partners or have unprotected sex. In the same vein, social norms in many communities pose a challenge that makes it difficult for parents to freely talk to their children about issues related to sex. As a result, access to information on safe sex practices are far removed from discussions denying sexually active adolescents the right to information and knowledge to prevent them from becoming victims to HIV spread through sexual activities. Gender inequality is a challenge that fuels unequal power relations between men and women. Persistent gender inequalities thwart efforts for women to request or demand that their sexual partners use protection.

Stigma and discrimination continue to be major barriers to HIV prevention and treatment in Uganda. Stigma affects access and adhering to treatment, people living with HIV often face discrimination in their communities and workplace, which can lead to isolation and exclusion. Those living with HIV/AIDS fail to disclose or attend scheduled health visits and drug refills for fear of information about their HIV status being known. This can make it difficult for people to access healthcare services and adhere to their treatment regimen.

Access to ART has greatly expanded in Uganda in recent years, with an estimated 1.3 million people living with HIV receiving treatment in 2020. However, the country continues to face a challenge of ensuring that all people living with HIV receive the treatment they need. Disparities in access to and use of ART are influenced by geographical realities where those in the urban are better positioned than those in the rural areas, distance to health-care facilities, transport cost, gender, social and economic status explain variations in accessing and use of or adherence to ART.

Care for people living with HIV in Uganda includes both clinical care and support services. Clinical care includes the provision of ART, management of opportunistic infections, and monitoring of CD4 counts and viral load. Support services include psychosocial support, nutritional support, and economic empowerment programs. Despite the expansion of HIV care services in Uganda, challenges remain in ensuring universal access to care, particularly among key populations. Limited availability of second- and third-line ART, leads to the development of drug resistance.

Gender inequalities mainly reduce women’s bargaining power and likelihood to negotiate for safe sex. Women are also more likely to be in abusive relationships exposed to domestic violence.⁷ Related to the gender issue is the failure to have HIV/AIDS facts disaggregated by sex and age.⁸

Unknown or failure to disclose HIV status to a sexual partner is another persisting challenge yet 14% of HIV infected men have not been tested, 23% of HIV positive men have not started treatment and the 32% are not viral suppressed by 2019.

Key Populations

Uganda has a concentrated epidemic, with certain key populations, such as sex workers, men who have sex with men, and people who inject drugs, at higher-risk of HIV infection. Uganda has implemented targeted interventions to address the needs of these key

populations, including the provision of harm reduction services for people who inject drugs and the establishment of clinics that specifically cater to the needs of sex workers and men who have sex with men.

However, despite these efforts, stigma and discrimination against key populations continue to be a significant barrier to accessing HIV prevention, treatment, and care services. There is a need for continued efforts to address these barriers and ensure that key populations have access to the HIV services they need.

DISCUSSION

Uganda has made significant progress in combating HIV/AIDS, particularly in reducing prevalence and incidence through a combination of prevention, treatment, and care interventions. However, challenges remain in ensuring universal access to these interventions, particularly among key populations. Addressing stigma and discrimination, improving access (Ministry of Health 2019).

Challenges in Ensuring Inclusive Access to HIV/AIDS Services

One of the challenges to ensuring inclusive access to HIV/AIDS related services and positive outcomes from the strategies is how to extend and reach all populations. Some categories of the population, including adolescents, older adults, persons living with disabilities as well as high-risk populations such as long distance truck drivers and sex workers tend to require unique conditions if they are to access and benefit. Thus, in the event that such conditions – guarantee of privacy, specialized health spaces and flexible times are non-existent, access to and benefit from the strategies is compromised. However, the government of Uganda through its Ministry of Health has continued to put in place strategies and with appropriate guidance on programming for the mentioned categories. Another challenge is the high-levels of new HIV infections among adolescent girls and young women.

CONCLUSION

Uganda has made significant progress in its response to HIV/AIDS by implementing a number of strategies at the level of prevention, treatment and care, and targeted interventions for key populations. However, challenges remain including gender inequality and its spin-offs that limit effective protective measures, failed behavioral change, access issues to the provision of HIV services, including ART in hard-to-reach areas. A relaunch of ABC and continued innovative preventive efforts are needed to ensure that Uganda can achieve its goal of ending the HIV/AIDS epidemic by 2030.

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