

# Current Trends in HIV Prevalence and Incidence in Uganda: Analyzing Regional Disparities and Progress Toward Targets

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## ABSTRACT

HIV/AIDS remains a critical public health issue in Uganda, characterized by significant regional disparities in prevalence and incidence rates. Despite substantial progress in the fight against HIV, understanding the current trends in HIV prevalence and incidence is essential for effective intervention and resource allocation. This review article aims to analyze the latest trends in HIV prevalence and incidence across different regions of Uganda, exploring the factors contributing to regional disparities and evaluating the country's progress towards achieving national and global health targets. By synthesizing recent data, examining trends over time, and discussing the implications of these trends for public health strategies, this review provides a comprehensive overview of the current state of HIV in Uganda and offers insights for future policy and intervention efforts.

**Keywords:** HIV prevalence, HIV incidence, regional disparities, Uganda, public health interventions

## INTRODUCTION

HIV/AIDS remains a pressing public health issue in Uganda, a country that has long grappled with high rates of HIV infection and its associated impacts. Despite considerable advances in treatment and prevention strategies, the epidemic continues to exhibit significant regional disparities, with some areas experiencing higher prevalence and incidence rates than others [1, 2]. Understanding the current trends in HIV prevalence and incidence is crucial for effective public health planning and resource allocation. In recent years, Uganda has made notable progress in its fight against HIV/AIDS, marked by increases in access to antiretroviral therapy (ART), expanded testing coverage, and robust prevention programs. However, the persistence of regional disparities highlights the complex nature of the epidemic. Factors such as socio-economic conditions, cultural practices, healthcare infrastructure, and access to services contribute to these disparities, affecting the effectiveness of national and global health targets [3, 4]. The goal of this review is to

provide a comprehensive analysis of the current trends in HIV prevalence and incidence across different regions of Uganda. By examining the latest data and identifying key regional differences, this review aims to elucidate the factors driving these disparities and assess Uganda's progress toward achieving key targets set by national and global health frameworks. These targets include the UNAIDS 95-95-95 goals, which aim to ensure that 95% of people living with HIV know their status, 95% of those diagnosed are on treatment, and 95% of those on treatment achieve viral suppression [5, 6]. In exploring these themes, the review will shed light on the successes and challenges faced in Uganda's HIV response, offering insights into how targeted interventions can address regional disparities and improve overall outcomes. Through this analysis, stakeholders can better understand the evolving landscape of HIV/AIDS in Uganda and develop strategies to enhance the effectiveness and equity of the national HIV response [7].

### Current Trends in Hiv Prevalence and Incidence

**National Overview:** Recent data indicates that Uganda has made notable progress in reducing HIV prevalence and incidence over the past decade.

According to the Uganda AIDS Commission and other sources, the national HIV prevalence among adults has declined from 7.3% in the early 2000s to

approximately 6.0% in recent years[8]. However, the incidence rate remains a concern, with an

estimated 40,000 new infections occurring annually[9].

### Regional Disparities:

The Central Region, including Kampala, has a greater incidence of HIV as a result of urbanisation, migration, and a high population density. The Northern Region is confronted with difficulties arising from protracted violence and relocation, resulting in an elevated incidence of HIV and restricted access to healthcare[1, 10, 11]. The HIV prevalence in the Western Region has declined as a

result of effective intervention programs and improved availability of antiretroviral medication. The Eastern Region has a combination of different patterns, as some places exhibit steady or decreasing levels of prevalence, while others persistently encounter high infection rates owing to socio-economic conditions and cultural traditions[12, 13].

### Factors Contributing to Regional Disparities

The regional variations in HIV prevalence mostly stem from socioeconomic variables, including poverty, unemployment, and limited education [14]. These regions often experience a shortage of access to healthcare and preventative services. HIV transmission rates and treatment uptake are also

influenced by cultural and behavioural variables, such as stigma and prejudice [15]. The efficiency of HIV prevention is also influenced by the healthcare infrastructure, which includes testing and treatment facilities. Urban communities often have superior accessibility to healthcare services [16].

### Progress Toward Targets

**Global and National Targets:** Uganda has committed to the UNAIDS 95-95-95 targets, aiming for 95% of people living with HIV to know their status, 95% of those diagnosed to be on treatment, and 95% of those on treatment to achieve viral suppression. Progress towards these targets varies by region, with urban areas generally performing better than rural regions[17, 18].

**Programmatic Successes:** Successful programs such as the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund have significantly contributed to increasing access to ART and prevention services. Community-based interventions and outreach programs have also played a crucial role in improving HIV testing and treatment uptake [19,20].

### Challenges and Future Directions

**Addressing Regional Disparities:** Targeted interventions are needed to address the specific needs of high-prevalence regions, including improved healthcare infrastructure, tailored prevention programs, and enhanced community engagement[21].

addressing socio-economic barriers that contribute to HIV transmission[22].

**Sustaining Progress:** Ensuring the sustainability of progress requires continued investment in healthcare, strengthening of health systems, and

**Innovative Approaches:** Embracing innovative approaches such as digital health solutions, community-based interventions, and integration of HIV services with other health programs can enhance the effectiveness of HIV prevention and care efforts[23, 24].

### CONCLUSION

The trends in HIV prevalence and incidence in Uganda highlight the need for a nuanced understanding of regional disparities and the continued adaptation of public health strategies. While progress towards national and global targets is evident, addressing the diverse needs of different regions and overcoming challenges is crucial for

achieving a more equitable and effective response to the HIV epidemic. By leveraging current successes and focusing on innovative solutions, Uganda can make further strides toward reducing the burden of HIV/AIDS and improving health outcomes for its population.

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