

Editorial

Current Status of HIV Worldwide and Potential Threat

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Since the first acquired immunodeficiency syndrome (AIDS) cases reported in 1981 in USA, the battle between human immunodeficiency virus (HIV) and humanity began. As we stand on the brink of 2025, the global fight against HIV/AIDS has seen remarkable progress and persistent challenges by the combined efforts of scientists, health personnel, community leaders, politicians, and many organizations. The year 2024 has been a testament to both triumphs and threats in the battle against this epidemic. While advancements in treatment and prevention have brought hope, the goal of ending HIV as a public health threat by 2030 remains elusive. This editorial aims to provide an overview of the current status of HIV worldwide and highlight the potential threats that could undermine the progress made so far.

One of the most significant achievements in recent years has been the increase in the number of people receiving antiretroviral treatment (ART). By the end of 2023, 30.7 million people were receiving antiretroviral therapy, a significant increase from 7.7 million in 2010.⁽¹⁾ According to the UNAIDS 2024 World AIDS Day report, more people than ever are now on ART, leading to viral suppression and a reduction in AIDS-related deaths to their lowest level in two decades. The 95-95-95 targets, which aim for 95% of people living with HIV to know their status, 95% of those diagnosed to receive sustained ART, and 95% of those on ART to achieve viral suppression, have been reached by nine countries, with ten more on the verge of achieving these goals.⁽²⁾

Despite these encouraging developments, the number of new HIV infections remains alarmingly high. In 2023, an estimated 1.3 million people were newly infected with HIV. Prevention efforts have lost momentum in some regions, necessitating a renewed focus on effective strategies. Behavioral, biomedical, and structural approaches, including viral suppression with antiretrovirals, condom use, needle-exchange programs, education, and policy reform, are essential components of a comprehensive prevention strategy.⁽²⁾ Key barriers to the global efforts against HIV/AIDS are access to HIV testing and ART, stigma and discrimination, gender inequality, insufficient sex education, sociocultural taboos, lack of moral and religious values, insufficient funding for HIV-related research and programs.⁽³⁾

Oral pre-exposure prophylaxis (PrEP) has shown promise in reducing new HIV infections in certain populations. For example, Expanding the use of HIV PrEP is essential to the U.S. National HIV/AIDS Strategy's goal of reducing new HIV infections by 75% by 2025 and 90% by 2030.⁽⁴⁾ However, its impact has been limited among women and adolescent girls in East and Southern Africa, who face a high HIV burden.

The need for regular clinic visits and daily dosing can be stigmatizing and inconvenient, leading to low uptake. A landmark trial published in 2024 demonstrated the efficacy of the HIV-1 capsid inhibitor lenacapavir, administered twice a year by subcutaneous injection, in preventing HIV acquisition among women and girls in South Africa and Uganda.⁽²⁾ This long-acting drug offers a new tool for HIV prevention, but its success depends on affordability and accessibility for those at greatest risk.

The sustainability of HIV prevention and treatment programs is threatened by funding challenges. The US President's Emergency Fund for AIDS Relief (PEPFAR) and the Global Fund are expected to be the largest purchasers of lenacapavir. However, PEPFAR's funding was reauthorized for only one year instead of the usual five, and the Global Fund faces its own funding challenges as it enters its next replenishment cycle in 2025. These financial uncertainties could hinder the availability of essential HIV prevention and treatment services. Moreover, the exclusion of many middle-income countries from licensing deals for generic lenacapavir is a significant concern. Countries such as Peru, Brazil, Mexico, and Ecuador, which participated in lenacapavir trials and where HIV is resurging, are not eligible to purchase the drug at a reduced price. This exclusion could exacerbate the HIV epidemic in these regions, highlighting the need for equitable access to life-saving medications.

For the first time in 2023, new HIV infections in sub-Saharan Africa were outnumbered by those in the rest of the world, particularly in Eastern Europe, Central Asia, and Latin America. Outside sub-Saharan Africa, most new infections occur among men who have sex with men, injecting drug users, and sex workers and their clients.⁽²⁾ In some Latin American countries, new HIV infections are increasing, underscoring the need for targeted prevention efforts and better access to long-acting preventive drugs. Despite medical advancements, people from key populations continue to face human rights violations, stigma, discrimination, and punitive laws that hinder their engagement with HIV services. These barriers contribute to late presentation with advanced HIV disease, leading to preventable deaths. Addressing these issues requires a human rights-based approach that combines biomedical, behavioral, and structural responses to curtail the HIV/AIDS pandemic once and for all

The global fight against HIV/AIDS has made significant strides, but the journey is far from over. The progress achieved in treatment and prevention must be sustained and expanded to reach the goal of ending HIV as a public health threat by 2030. This requires intensified efforts, equitable access to life-saving medications, and a commitment to human rights. The future of the HIV/AIDS fight should focus on an inclusive approach that tackles individual, social, and structural factors, while leveraging science, technology, and community efforts to reduce infections, enhance lives, and work toward ending the epidemic. As we move forward, it is crucial to address the challenges and seize the opportunities to create a world free of HIV/AIDS.

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Conflict of Interest

The authors declare no conflict of interest.

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