

## The global HIV/AIDS epidemic: Challenges and opportunities for progress.

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### Abstract

**HIV (Human Immunodeficiency Virus) is a virus that attacks the immune system and can lead to AIDS (Acquired Immune Deficiency Syndrome). HIV is primarily spread through unprotected sexual contact, sharing needles or syringes, and mother-to-child transmission during pregnancy, childbirth, or breastfeeding. The virus attacks the immune system, which can lead to a range of symptoms and illnesses, including opportunistic infections and cancers that are rare or non-existent in people with healthy immune systems. It has been one of the most devastating pandemics in recent history, having claimed over 36 million lives since its discovery in the early 1980s. While the epidemic has disproportionately affected certain populations, including men who have sex with men, people who inject drugs, and women and girls in sub-Saharan Africa, the virus has affected people of all ages, genders, and sexual orientations worldwide.**

**Keywords:** Human Immunodeficiency Virus, Childbirth, Breastfeeding, Acquired Immune Deficiency Syndrome.

### Introduction

AIDS is a condition that occurs when the immune system is severely compromised, making individuals vulnerable to life-threatening infections and illnesses. Without treatment, the virus can progress to AIDS within 10-15 years of infection, although this timeframe can vary greatly from person to person. However, with early diagnosis and treatment, individuals with HIV can now live long and healthy lives, and the risk of transmitting the virus to others can be significantly reduced. One of the challenges in combating HIV/AIDS is that the virus can remain in the body for many years without causing any symptoms, which means that individuals may be unaware that they are infected and can unknowingly transmit the virus to others. This underscores the importance of testing and early diagnosis, which can help individual's access treatment and reduce the risk of transmission [1].

There are several medications available that can help manage HIV and prevent its progression to AIDS. These medications are typically taken in combination and are known as Antiretroviral Therapy (ART). ART can help suppress the virus, restore immune function, and reduce the risk of transmission. However, ART is not a cure for HIV, and individuals with the virus will need to continue taking medication for the rest of their lives. While there is no cure for HIV, prevention is key to reducing its spread. Using condoms during sexual activity and avoiding sharing needles or syringes can help prevent the transmission of HIV. Additionally, individuals who are at high risk of contracting

HIV can take Pre-Exposure Prophylaxis (PrEP), a medication that can reduce the risk of acquiring the virus [2].

There are also several social and economic factors that can increase an individual's risk of contracting HIV. Poverty, lack of access to healthcare, and social stigma can all make it more difficult for individuals to protect themselves from the virus and access the care and support they need. Additionally, some populations, such as men who have sex with men, may face legal and social barriers to accessing prevention and treatment services. Efforts to combat HIV/AIDS have focused on a multi-pronged approach that includes prevention, testing and diagnosis, treatment and care, and addressing social and cultural factors that can increase vulnerability to the virus. This includes providing education and resources on safe sex practices, promoting access to HIV testing and treatment, and working to reduce stigma and discrimination against people living with HIV [4].

In recent years, there have been several major breakthroughs in the fight against HIV/AIDS. These include the development of PrEP, which has been shown to be highly effective at reducing the risk of HIV transmission among people at high risk of infection, and the introduction of long-acting injectable antiretroviral therapy, which can simplify treatment regimens and improve adherence. Despite these advances, HIV/AIDS remains a significant public health challenge, particularly in low- and middle-income countries. The on-going COVID-19 pandemic has also highlighted the importance of maintaining access to HIV prevention and treatment services, as disruptions to healthcare systems and supply chains have led to challenges in accessing essential medications and care. As such, on-

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Received: 24-Feb-2023, Manuscript No. AAJIDMM-23-90753; Editor assigned: 27-Feb-2023, PreQC No. AAJIDMM-23-90753(PQ); Reviewed: 10-Mar-2023, QC No. AAJIDMM-23-90753; Revised: 14-Mar-2023, Manuscript No. AAJIDMM-23-90753(R); Published: 21-Mar-2023, DOI:10.35841/2591-7366-7.2.138

going efforts are needed to address the HIV/AIDS epidemic and ensure that all individuals, regardless of their background or circumstances, have access to the resources and support they need to protect them from the virus and live healthy and fulfilling lives [5].

## Conclusion

People with HIV may experience challenges with achieving and maintaining viral suppression. Some of these challenges include missing HIV medical appointments, needing but not receiving other important health care services, or missing doses of HIV treatment.

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