

## PREVENTION OF NEW CASES OF HUMAN IMMUNODEFICIENCY VIRUS: PRAGMATIC APPROACHES OF SAVING LIFE IN DEVELOPING COUNTRIES

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### Abstract

Human Immunodeficiency Virus (HIV) is a major Public Health burden to the world despite all efforts to eradicate the menace. New cases of HIV are increasing rapidly especially in the developing world. Pragmatic preventive measures are necessary to reduce the scourge. Prevention of HIV has remained the best approach to the control of the spread of HIV as there is no definitive cure yet. More sensitization and education are needed in the many sectors of the society to help educate the public on ways of preventing HIV infection and spread to arrest new cases of such infection and obtain improved health status of the society which will reduce cost for the government and non-governmental organisations.

**Keywords:** *HIV, new cases of HIV, pragmatic preventive measures, developing countries*

### Introduction

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Quite a lot of people living with Human immunodeficiency virus (HIV) or at risk of acquiring HIV nonetheless lack access to prevention, care, and treatment, and there remains no cure despite advances in our scientific understanding of HIV and its prevention and treatment as well as years of significant effort by the global health community and top government and civil society organizations (*HIV and AIDS*, 2017; Obeagu *et al.*, 2022; Odo *et al.*, 2020; Madekwe *et al.*, 2022)). Also, the HIV epidemic not only has an influence on people's health but also on homes, communities, and the social and economic advancement of whole countries. Numerous of the nation most severely impacted by HIV are also plagued by other infectious diseases, food instability, and other grave issues (Piot *et al.*, 2001).

Human immunodeficiency virus intervention strategies have been around for three decades, with varying degrees of success and failure, as well as high expectations, dashed dreams, and innovations (Ezima Uloaku *et al.*, 2016; Okoroiwu *et al.*, 2022; Obeagu *et al.*, 2017). Every type of pandemic and demographic group has examples of successful preventative strategies. Clinical study results have supported the effectiveness of pre-exposure prophylaxis, early antiretroviral treatment (ART), and voluntary medical male circumcision in preventing HIV infection (PrEP). Combination preventive programmes have helped to reduce the prevalence of HIV infection in sex workers, men who have sex with men (MSM), injecting drug users, and generalized HIV epidemics and MSM (CDC, 2022).

Recently (Arpadi, 2022), despite the challenges, there are still achievements and encouraging trends. In especially over the past ten years, new international efforts have been made to combat the disease. Over time, fewer persons have developed HIV for the first time. In addition, there has been a significant rise in the number of HIV patients receiving treatment in low-resource nations over the past ten years, and significant strides have been achieved in both avoiding HIV transmission to unborn children and maintaining the health of pregnant women (Obeagu and Obeagu, 2015; Obeagu *et al.*, 2022).

A recent study (The Global HIV/AIDS Epidemic., 2022) established that, Political leadership, financing, programmatic action, and accountability have not yet achieved the level of focus established for eMTCT and treatment despite several attempts to re-energize the preventative response for adolescents and adults. The Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe Women (DREAMS) programme, backed by the US President's Emergency Plan for AIDS Relief (PEPFAR), and the All-In-campaign, established by UNICEF, are two notable exceptions. A mechanism for accountability on the prevention of both adolescent and adult infections across subnational to national and worldwide levels is also lacking, as is a strategy with specifically stated, implementable programmatic coverage objectives to link interventions to impact.

(Dehne *et al.*, 2016) shows that clinical studies and actual implementation provide compelling evidence that HIV prevention programmes may be effective, particularly when developed thoroughly as a component of combination preventive programming and executed at scale with

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adequate coverage. However, comprehensive implementation has remained patchy, necessitating a fundamentally and energetically reinvigorated effort for prevention (Dehne *et al.*, 2016).

### **Human Immunodeficiency Virus**

The virus known as HIV (human immunodeficiency virus) lowers your immune system's defenses against common infections. When your immune system has been gravely compromised by the HIV virus, a series of potentially fatal diseases and disorders are known collectively as AIDS (acquired immune deficiency syndrome). HIV may spread from one person to another, although AIDS cannot. Most HIV-positive individuals will not have any AIDS-related diseases and will live relatively normal lives if they receive an early diagnosis and adequate therapies (Dehne *et al.*, 2016).

The HIV virus is without a doubt the most significant public health catastrophe of our time. It is a complicated mishap of several diseases that have spread inside and across different nations and areas of the world (Simon *et al.*, 2006). Our knowledge of the virus's replication, manipulation, and concealment in an infected individual has grown as a result of research. Though preventative measures have increased and our knowledge of etiology and transmission dynamics has deepened, a protective vaccination or treatment are still unattainable.

In certain areas, antiretroviral therapy has changed AIDS from a sickness that would definitely result in death to a chronic, treatable illness (Hemelaar *et al.*, 2020). In those regions of the globe that continue to suffer a disproportionate burden of new HIV infections and are most impacted by rising morbidity and mortality, this transition has yet to be realized.

### **Prevalence of HIV**

With 40.1 million [33.6-48.6 million] deaths caused by HIV to date, it is still a significant worldwide public health concern (*Global Statistics*, 2022). Globally, 650 000 [510 000-860 000] persons perished in 2021 as a result of HIV-related causes. At the end of 2021, there were approximately 38.4 million [33.9-43.8 million] people living with HIV (PLHIV), and 1.5 million [1.1-2.0 million] persons acquired HIV for the first time worldwide. With 25.6 million [23.4-28.6 million] people infected with HIV in the WHO African Region in 2021, it is among the most afflicted region.

The hardest impacted area in the globe is Sub-Saharan Africa, which is home to two-thirds of all HIV-positive persons worldwide, followed by Asia and the Pacific. Eastern Europe, Central Asia, and Latin America are all severely impacted (CDC., 2022).

### **HIV Preventive Measures: Pragmatic Approaches of Saving Life in Developing Countries**

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Several methods and interventions have proved highly effective in reducing the risk of, and protecting against, HIV infection, the use of antiretroviral medicines as pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), voluntary male medical circumcision (VMMC), behaviour change interventions to reduce the number of sexual partners, the use of clean needles and syringes, opiate substitution therapy (e.g. methadone) and the treatment of people living with HIV to reduce viral load and prevent onward transmission (UNAIDS.,2022).

Despite strong scientific evidence on the effectiveness of STI management for HIV prevention, the coverage of STI control services for the general population and particularly among high risk populations including key vulnerable people (KVP) is low. Most programmes providing tailored services for KVP do not adequately integrate STI management. The implementation of integrated management of STI/RTI in HIV care and reproductive health services should be revised and strengthened.

The WHO advises countries to adopt CAB-LA as part of a comprehensive approach in their strategies to prevent the spread of HIV, but notes that it is currently too expensive for most people. CAB-LA is an intramuscular injectable, long-acting form of PrEP, with the first 2 injections administered 4 weeks apart, and followed thereafter by an injection every 8 weeks. CAB-LA was shown to be safe and highly effective among cisgender women, cisgender men who have sex with men, and transgender women who have sex with men in 2 randomized controlled trials, HPTN 083 and HPTN 084. Together, these landmark studies found that use of CAB-LA resulted in a 79% relative reduction in HIV risk compared with oral PrEP, where adherence to taking daily oral medication was often a challenge.

### **Rise in new cases of HIV**

Progress in prevention and treatment is faltering around the world, putting millions of people in grave danger. Eastern Europe and central Asia, Latin America, and the Middle East and North Africa have all seen increases in annual HIV infections over several years. In Asia and the Pacific, UNAIDS data now show new HIV infections are rising where they had been falling. Action to tackle the inequalities driving AIDS is urgently required to prevent millions of new HIV infections this decade and to end the AIDS pandemic

While the world's attention was riveted on the Covid-19 pandemic and the war in Ukraine, the fight against an older foe lost crucial ground: More than 1.5 million people became infected with H.I.V. last year, 38.4 million people were living with HIV (*Global HIV & AIDS Statistics.*, 2022), roughly three times the global target, the United Nations reported on Wednesday. Roughly 650,000 people died of AIDS in 2021, about one every minute, according to U.N.AIDS, the organization's program on H.I.V. and AIDS. Progress against the disease has faltered, and global infections have

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held steady since 2018. The toll in 2021 was uneven, as people ages 15 to 24 years and young women in particular carried a disproportionate share of the burden. One new infection in an adolescent girl or young woman occurred every two minutes, the program said. In sub-Saharan Africa, young people accounted for 31 percent of new infections, and nearly four in five of them were among girls and young women. In El Salvador, the prevalence of H.I.V. almost doubled among men who have sex with men and rose about eightfold among transgender people.

Over the last two years, the multiple and overlapping crises that have rocked the world have had a devastating impact on people living with and affected by HIV, and they have knocked back the global response to the AIDS pandemic. Together, world leaders can end AIDS by 2030 as promised.

## Conclusion

New cases of HIV are increasing rapidly especially in the developing world. Pragmatic preventive measures are necessary to reduce the scourge. Prevention of HIV has remained the best approach to the control of the spread of HIV as there is no definitive cure yet.

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