

Forum: Special Conference on Health

Issue: Ensuring regulated supply and accessibility of HIV-Vaccines especially in vulnerable regions and populations

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Introduction

The Human Immunodeficiency Virus (HIV) and its late-stage lethal counterpart, the acquired immunodeficiency syndrome (AIDS), continue to terrorise vulnerable regions lacking access to treatment services. Ever since the virus's first major appearance in the USA in 1981, there have been global-scale initiatives that still combat the virus around the world. However, time and the continuously changing state of international and national stages have created roadblocks in the task of eradicating the virus. One of these problems is the lack of supply of HIV/AIDS treatment services in vulnerable regions, particularly Southern Africa and Eastern Europe.

These regions are vulnerable for two distinct reasons, the former is affected by challenges posed by logistics and cost, while the latter faces negative stigma around HIV being a "curse from God" by religious communities, and the discrimination they bring along with the use of syringe-based drugs and unprotected intimacy.

Currently, the fight against HIV/AIDS revolves around the coordinated efforts of the globe under the aegis of WHO and UNAIDS, which receives more than half of its funding through foreign partners such as the USA and non-governmental organisations. However, the new foreign aid policies of the USA have their effect on the funding of treatment operations. Additionally, licensing barriers imposed upon medication patents negatively affect the adequate production and distribution of HIV/AIDS medication.



However, even if there is no current vaccine that can be used to cure and eliminate HIV/AIDS, like in smallpox, yet proper medication can stop the transmission of the disease to other people. Hence why adequate access to medication is crucial.

Definition of Key Terms

Human immunodeficiency virus (HIV)

Also known as the "gay virus" for starting its epidemic timeline among gay men, it is a virus that attacks the human immune system. If left untreated, it can lead to acquired immunodeficiency syndrome (AIDS), which is lethal and whose infected often have a life expectancy of three years. The virus is known to spread from open wounds, and especially during unprotected intercourse with virally-infected semen (cum) or vaginal fluid. (HIV.gov, 'What Are HIV and AIDS?'; CDC)

There is still no cure (to that extent, a vaccine) for HIV. However, its spread can be completely rectified with preventive measures, and therapeutic treatment can increase the life expectancy back to normal rates. (HIV.gov, 'HIV Vaccines')

Acquired immunodeficiency syndrome (AIDS)

AIDS is the name given to the condition of HIV infection, where the virus has greatly damaged the infected body's immune system. This stage of HIV is reached when the number of white cells (CD4) in 200 cubic millilitres of blood falls below 200. People within the AIDS stage of the infection have a life expectancy of three years, life expectancy drops further down to a year if the person is also infected with an opportunistic infection. (HIV.gov, 'What Are HIV and AIDS?'; WHO)

Today, the medication used against HIV revolves around preventing the disease from evolving into AIDS. (HIV.gov, 'What Are HIV and AIDS?'; HIV.gov, 'HIV Vaccines'; WHO; CDC)

Opportunistic infection (OI)



Opportunistic infections (OI) are caused by bacteria, fungi, viruses, or parasites that are normally harmless but pose danger when the body's immune system is impaired (Riccardi et al.).

Antiretroviral therapy (ART)

Antiretroviral therapy (ART) is a set of two types of medication. The first set is used to suppress the reproduction of HIV, and the other set is for reducing the likelihood of its developing resistance. The medication is built upon the principle of undetectable equal transmittable (U=U). Meaning that if the virus is not detectable in the forms it can transmit itself (such as semen or vaginal fluid, also referred to as viral load), it cannot be transmitted. (CDC; HIV.gov, 'What Are HIV and AIDS?'; WHO; HIV.gov, 'HIV Vaccines')

Background Information

History and current numbers of HIV/AIDS

The index case (i.e. the first person to have HIV/AIDS) is still a contested subject, with debated instances dating back to 1959's Belgian Congo. The first undisputed instance of the virus was recorded on 5 June 1981 in Los Angeles, USA. (Mumford)

According to the Joint United Nations Programme on HIV/AIDS (UNAIDS) 2024 fact sheet, there were 40 million people infected with HIV in 2023, of whom 1.3 million contracted the disease the same year. In the same year, 630,000 people were AIDS patients. 30.7 million of those infected with HIV were receiving ART. Vulnerable regions and populations to HIV/AIDS were mentioned as women and girls aged 15-45 in eastern and southern Africa, gay men, and other men having sex with men, sex workers, people injecting drugs, transgender people, and people in prisons. (UNAIDS, *UNAIDS Fact Sheet*)

In Africa, 62% of new HIV/AIDS cases were among women of all ages; in other regions, over 73% of the cases of new infections occurred among men and boys. (UNAIDS, *UNAIDS Fact Sheet*)



Comparing these numbers and how the virus unfolded in the West with Africa, the response to HIV/AIDS in Africa was lacking. Although an epidemic was becoming apparent in 1983, national authorities delayed recognising the threat, fearing the negative backlash it would cause to their countries' economies. (Kagaayi and Serwadda)

However, both underdeveloped and developed communities have developed an unhealthy commentary on HIV/AIDS, which plagues the fight against the disease to this day. This is the infamous synonymy brought in by some Christian communities that the virus is a divine punishment from God against gay men (Smit et al.; Hlongwana and Mkhize). This narration was a result of how the press, starting in the USA, was informed that the virus was more prevalent among gay men and other males who have sex with males. This development of stigma against certain groups results in these oppressed groups showing reluctance to access HIV/AIDS services (testing or treatment) due to the fear of societal pressure (Philpot et al.; Smit et al.).

Treatment of HIV/AIDS

As stated, there is still no medication that can effectively destroy the virus, let alone a vaccine that can prepare the immune system. Therefore, treatment of HIV/AIDS revolves around using ART to prevent HIV from developing into AIDS, which is a terminal illness without a cure (HIV.gov, 'HIV Vaccines').

Apart from ART, treatment of HIV/AIDS is done by preventive methods. These methods include using protection during intimacy, offering male circumcision (which can prevent the spread of the virus, female-to-male by 60%) (USAIDS; Peck).

The current global framework of combating HIV/AIDS was adopted by the UN in June 2021, known as 95-95-95. The framework's goal is divided into three steps, which call for the percentage of (95 in this case) of HIV patients who know that they have the virus, of those known are in treatment, and those in treatment have a suppressed viral load (UNAIDS, *Understanding Measures of Progress towards the 95-95-95 HIV Testing, Treatment and Viral Suppression Targets*).



Therefore, achieving the First 95 is crucial for vulnerable regions; thus, there is a special emphasis on supplementing the required virus testing equipment.

Effects and today's reception of HIV/AIDS in vulnerable regions

According to the most recent UNAIDS report, the most affected region from HIV/AIDS is Eastern and Southern Africa (ESA), followed by Eastern Europe and Central Asia (EECA), with the former having more cases than the latter. Moreover, ESA are known for having more cases, whilst EECA have a rising trend, particularly due to more unprotected intimacy and needle-based drug usage. Compared to its African counterpart, the EECA region is far behind the goal of identifying 95 per cent of the HIV/AIDS cases in the area (UNAIDS, *The Urgency of Now: AIDS at a Crossroad*).

In ESA, the virus's presence is predominantly more prevalent in adolescent girls. Comoros and Madagascar are flagged to have rampant structural barriers, including but not limited to gender, poverty, and social exclusion, that prevent those infected from taking medication. Also, places like Eswatini and Rwanda are in decline in their discrimination rates towards HIV/AIDS patients. However, the rising prevalence of anti-LGBTQI+ rhetoric poses a threat to enabling women from accessing help. An effective way to combat the virus is shown to be with community-led organisations that take coordinated plans with that country's respective health authority, as shown in Kenya. The total resources allocated to this region were 9.3 billion USD, of which 40% came from UNAIDS, with the remaining

Share of the population infected with HIV, 2019
The share of people aged 15 to 49 years old who are infected with HIV.

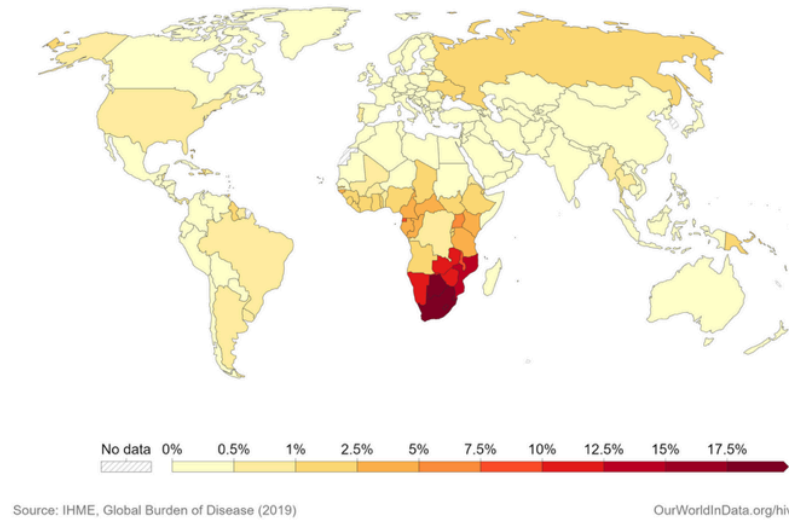


Figure 1: Share of the population infected with HIV, 2019 (IHME)



budget being covered by USAID's HIV/AIDS fund and the Global Fund to Fight AIDS (UNAIDS, *The Urgency of Now: AIDS at a Crossroad* 248–49).

Although the numbers in EECA are far below those in ESA, the EECA region is facing an increase in new HIV/AIDS patients. Only 59% of HIV/AIDS patients are aware of their complication as opposed to ESA's 93%. Vulnerable populations in the EECA are sex workers and their clients, and injected drug users. Despite this, EECA is severely underfunded. Furthermore, negative stigma revolving around HIV/AIDS prevents the formation of community-led support groups and institutionalising help on a national scale (UNAIDS, *The Urgency of Now: AIDS at a Crossroad* 244–45).

Major Countries and Organisations Involved

World Health Organisation (WHO)

The World Health Organisation (WHO) serves as the hub for coordinating a global response to HIV/AIDS, with its ultimate goal is to eliminating the disease. WHO's plan is laid out in Global Health Sector Strategies 2022-2030 (GHSS).

Joint United Nations Programme on HIV/AIDS (UNAIDS)

Joint United Nations Programme on HIV/AIDS (UNAIDS) is the principal UN organ against HIV/AIDS, dating its start back to 1996. UNAIDS's primary functions include tracking the spread of the virus and coordinating regional and interregional operations through its outposts dotted across UN member nations. UNAIDS also coordinates the fight against HIV/AIDS across non-governmental organisations (UNAIDS, 'About UNAIDS | UNAIDS').

United States of America

The USA is a primary player in the fight against HIV/AIDS. The USA is remembered for being the birthplace of the epidemic. Today, the epidemic is mostly contained, but disproportionately affects gay men and men who have intimacy with other men (HIV.gov, 'U.S. Statistics').



Current involvement of the USA could deteriorate the fight against HIV/AIDS, because of the newly elected Trump Administration's policy to cut spending, including at the expense of the US Agency for International Development's (USAID) to HIV/AIDS and the United States President's for AIDS Relief (PEPFAR) (*After US Aid Cuts, Data Shows HIV Testing Drops in South Africa* | REUTERS).

Pharmaceutical industries of the UK and the USA

The pharmaceutical industries of the UK and the USA (can also be referred to as "Big Pharma") are known as the birthplaces of many medications that are used in treating HIV. However, because these drugs are patented, ART is underused and reaches people in need too delayed. Moreover, the presence of Big Pharma in national policies takes up precious time of authorities in courtrooms for patent lawsuits that otherwise could have been used to deal with the virus (Hoen et al.).

China, India, and South Africa as cost-effective ART producers

China, India, and South Africa are key producers of cost-effective and easily transportable HIV/AIDS treatment to vulnerable and underdeveloped regions. The primary strength of these nations had derived from their laws, which allow for these medications to be produced regardless of patent laws (Hoen et al.), and now are unapplicable because of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the WTO. Only after an amendment to the TRIPS, which lowered the licensing costs of the patents these countries regain their ability to produce cheap medication.

Timeline of Events

Date	Description of event
1959	First (disputed) case of HIV-1 (HIV/AIDS unevolved counterpart) is recorded in Leopoldville, Belgian



	Congo. (Mumford; Kagaayi and Serwadda)
5 June 1981	First case of HIV/AIDS in the USA is recorded in Los Angeles, which had infected five young gay men. (HIV.gov, 'A Timeline of HIV and AIDS')
1987	FDA approves the first drug against HIV, zidovudine (AZT), originally created for cancer a decades before (Levy).
17 July 2000	Security Council Resolution 1308 is adopted, naming HIV/AIDS as a threat to global security (Sidibé).
2003	PEPFAR is launched, the largest HIV/AIDS financial commitment ever initiated by a country (HIV.gov, 'PEPFAR').
25 June 2001	26th Special Session of the General Assembly begins, being the first special session to discuss a health issue in the United Nations (Sidibé)
June 2021	The 95-95-95 framework to combat HIV/AIDS is adopted by the UN (UNAIDS, <i>Understanding Measures of Progress towards the 95-95-95 HIV Testing, Treatment and Viral Suppression Targets</i>).
20 January 2025	President Donald Trump signs an executive order to suspend USAID's relief funds, including HIV/AIDS



	treatment funds (The White House; <i>After US Aid Cuts, Data Shows HIV Testing Drops in South Africa</i> REUTERS).
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Relevant UN Resolutions and Other Documents

- Security Council Resolution 1308: The resolution designates HIV/AIDS as a threat to international peace and security and *encourages* member states' participation in UNAIDS. [https://docs.un.org/en/S/RES/1308\(2000\)](https://docs.un.org/en/S/RES/1308(2000))
- Declaration on the TRIPS agreement and public health (WTO): This agreement was done in the World Trade Organisation, which recognised its member states to produce generic HIV/AIDS medication. https://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm
- A/RES/S-26/2 (Resolution adopted by the General Assembly in its 26th Special Session). <https://docs.un.org/en/A/RES/S-26/2>

Previous Attempts to Solve the Issue

As stipulated above, solutions to ensure a stable supply chain involve granting more funding and extending the array of cooperation among nations to contain the virus, through ensuring testing and access to medication. Additional efforts involve breaking the negative narration of contracting the virus as a member of a discriminated group (discrimination by LGBTQI+, race, societal status) to encourage these people to take medication without the fear of societal prejudice. Although these steps to resolve the HIV/AIDS crisis are useful, fragmentation in the political landscape and funding shortages prevent perfect execution.

Possible Solutions



For considering possible solutions, keep in mind that education is not the solution to everything. Although educating the masses to be aware of the risks of HIV/AIDS and calling them to take proper precautions would impact positively to some degree, its effects would be seen far later in the future.

One of the primary questions of the day involves sustaining, and even increasing, the funding to UNAIDS and vulnerable countries directly to prevent service shortages arising from the USA's retraction of HIV/AIDS related foreign aid. To close the open gaps in the budget, it is advisable to establish new frameworks involving UN member states that can cover the budget, continuously or as an emergency trust for unexpected funding cuts, and provide immediate assistance to regions that may face service disruptions in the future due to disaster or conflict.

Note that the financial aspect of treating HIV/AIDS is open to discussion, however, the committee does not have the authority to repeal decisions taken by different institutions.

Other solution ideas should involve creative methods to further strengthen the ongoing framework; the limit to creativity is endless. Lastly, it should be noted that since U=U, if the virus could be managed to be contained (as was done in the programme to eradicate smallpox), its current patients could be the last.

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