The Global HIV/AIDS Epidemic

HIV, the virus that causes AIDS, “acquired immunodeficiency syndrome,” has become one of the world’s most serious health and development challenges. The first cases were reported in 1981 and today:

- There are approximately 36.7 million people currently living with HIV and tens of millions of people have died of AIDS-related causes since the beginning of the epidemic.¹
- While new cases have been reported in all regions of the world, approximately two-thirds are in sub-Saharan Africa, with 43% of new cases in Eastern and Southern Africa.²
- Many people living with HIV or at risk for HIV do not have access to prevention, care, and treatment, and there is still no cure.
- HIV primarily affects those in their most productive years; a third of new infections are among young people (ages 15-24).³
- HIV not only affects the health of individuals, it impacts households, communities, and the development and economic growth of nations. Many of the countries hardest hit by HIV also suffer from other infectious diseases, food insecurity, and other serious problems.
- Despite these challenges, new global efforts have been mounted to address the epidemic and there has been significant progress. The number of people newly infected with HIV, especially children, and the number of AIDS-related deaths have declined over the years, and the number of people with HIV receiving treatment increased to nearly 21 million as of June 2017.⁴ However, recent data shows that the pace of decline in new infections is too slow to reach global targets.⁵

Current Global Snapshot

According to the latest estimates from UNAIDS:⁶

- There were **36.7 million** people living with HIV in 2016, up from 33.2 million in 2010, the result of continuing new infections, people living longer with HIV, and general population growth.
- Global prevalence (the percent of people ages 15-49 who are infected) has leveled since 2001 and was **0.8%** in 2016 (Figure 1).
- **1.0 million** people died of AIDS in 2016, a 48% decrease since its peak in 2005. Deaths have declined due in part to antiretroviral treatment (ART) scale-up. HIV remains a leading cause of death worldwide and the leading cause of death among women of reproductive age globally.
- There were about **1.8 million** new infections in 2016 or about 5,000 new infections per day. While there have been significant declines in new infections since the mid-1990s, the pace of decline varies by age group, sex, and region.
- Most infections are transmitted heterosexually, although risk factors vary. In some countries, men who have sex with men,injecting drug users, sex workers, transgender people, and prisoners are disproportionately affected by HIV.
- Although HIV testing capacity has increased over time, enabling more people to learn their HIV status, about 3 in 10 of people with HIV are still unaware they are infected.
- HIV has led to a resurgence of tuberculosis (TB), particularly in Africa, and TB is a leading cause of death for people with HIV worldwide.⁷ In 2016, approximately 10% of new TB cases occurred in people living with HIV.⁸ However, between 2000 and 2016, TB deaths in people living with HIV has declined substantially, largely due to the scale up of joint HIV/TB services.
- Women represent half (52%) of all adults living with HIV worldwide. HIV is the leading cause of death among women of reproductive age.⁹ Gender inequalities, differential access to service, and sexual violence increase women’s vulnerability to HIV, and women, especially younger women, are biologically more susceptible to HIV.
- Young people, ages 15-24, account for approximately a third of new HIV infections. In Eastern and Southern Africa, young women 15-24 account for 26% of new HIV infections in 2016, even though they represent only 10% of the population.

- Globally, there were 2.1 million children living with HIV, 120,000 AIDS-related deaths, and 160,000 new infections among children in 2016. Since 2010, new HIV infections among children have declined by 47%.

**Table 1: HIV Prevalence & Incidence by Region, 2016**

<table>
<thead>
<tr>
<th>Region</th>
<th>Total No. (%) Living with HIV</th>
<th>Newly Infected</th>
<th>Adult Prevalence [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Total</td>
<td>36.7 million (100%)</td>
<td>1.8 million</td>
<td>0.8</td>
</tr>
<tr>
<td>Eastern and Southern Africa</td>
<td>19.4 million (53%)</td>
<td>790,000</td>
<td>7.0</td>
</tr>
<tr>
<td>Western and Central Africa</td>
<td>6.1 million (17%)</td>
<td>370,000</td>
<td>2.0</td>
</tr>
<tr>
<td>Asia and the Pacific</td>
<td>5.1 million (14%)</td>
<td>270,000</td>
<td>0.2</td>
</tr>
<tr>
<td>Western and Central Europe and North America</td>
<td>2.1 million (6%)</td>
<td>73,000</td>
<td>0.3</td>
</tr>
<tr>
<td>Latin America</td>
<td>1.8 million (5%)</td>
<td>97,000</td>
<td>0.5</td>
</tr>
<tr>
<td>The Caribbean</td>
<td>310,000 (&lt;1%)</td>
<td>18,000</td>
<td>1.3</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>1.6 million (4%)</td>
<td>190,000</td>
<td>0.9</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>230,000 (&lt;1%)</td>
<td>18,000</td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

- **Eastern and Southern Africa.** Eastern and Southern Africa is home to more than half (53%) of all people living with HIV, as well as more than half of the children living with HIV (62%). Despite the significant impact, new infections in the region have declined by 29% since 2010. Almost all of the region’s nations have generalized HIV epidemics—that is, their national HIV prevalence is greater than 1%. In eight countries, 10% or more of adults are estimated to be HIV-positive. South Africa has the highest number of people living with HIV in the world (7.1 million). Swaziland has the highest prevalence in the world (27.2%).

- **Western and Central Africa.** An estimated 6.1 million people are living with HIV in Western and Central Africa. Annual new HIV infections among adults remained stable between 2010 to 2016, while the annual number of new infections among children declined by a third during the same period; this decline is due primarily to increased provision of prevention of mother-to-child transmission services in the region.

- **Asia and the Pacific.** An estimated 5.1 million people are living with HIV in Asia and the Pacific. The region’s annual number of new HIV infections declined by 13% since 2010; however, trends vary from country to country. Annual new HIV infections decreased by 50% in Thailand since 2010, but increased by 141% in the Philippines during the same period. The region is also home to the two most populous nations in the world – China and India – and even relatively low prevalence translate into large numbers of people.

- **Western and Central Europe and North America.** An estimated 2.1 million people are living with HIV in this region. High coverage of ART plays a key role in the reduction of AIDS-related deaths in the region; since 2010, the number of AIDS-related deaths decreased by 32%.

- **Latin America.** An estimated 1.8 million people are living with HIV in Latin America. Between 2010 and 2016, the number of AIDS-related deaths in the region overall fell by 12%, but rose in some countries, including in Guatemala and Paraguay. In 2016, nearly half (49%) of new HIV infections in Latin America occurred in Brazil, which has the greatest number of people living with the disease (830,000) in the region.

- **The Caribbean.** An estimated 310,000 people are living with HIV in the Caribbean. The number of people living with HIV on treatment more than doubled since 2010 (from 69,000 in 2010 to 162,000 in 2016). However, the percent of people living with HIV who have suppressed viral loads in the region (34%) is below the global average (44%).

- **Eastern Europe and Central Asia.** An estimated 1.6 million people are living with HIV in this region, including 190,000 newly infected in 2016. New HIV infections in the region increased by 60% between 2010 and 2016. The epidemic is driven primarily by injecting drug use, although heterosexual transmission also plays an important role.

- **Middle East and North Africa.** An estimated 230,000 people are living with HIV in the Middle East and North Africa. Treatment coverage among people living with HIV in this region is 24%, the lowest of any region. Criminalization of key populations and stigma serve as barriers to coverage in the region. The region is also one of two in the world where the number of AIDS-related deaths is increasing (the other is Eastern Europe and Central Asia); the number of AIDS-related deaths increased by 19% since 2010.
Prevention and Treatment

Numerous prevention interventions exist to combat HIV, and new tools such as vaccines, are currently being researched.11

- Effective prevention strategies include behavior change programs, condoms, HIV testing, blood supply safety, harm reduction efforts for injecting drug users, and male circumcision. Additionally, recent research has shown that providing HIV treatment to people with HIV significantly reduces the risk of transmission to their negative partners. Pre-exposure antiretroviral prophylaxis (PrEP) has also been shown to be an effective HIV prevention strategy in individuals at high risk for HIV infection. In 2015, WHO recommended PrEP as a form of prevention for high-risk individuals in combination with other prevention methods.12 Further, in 2016, the U.N. Political Declaration on HIV/AIDS stated PrEP research and development should be accelerated.13

- Experts recommend that prevention be based on “knowing your epidemic,” that is, tailoring prevention to the local context and epidemiology, and using a combination of prevention strategies, bringing programs to scale, and sustaining efforts over time.

- Access to prevention, however, remains limited, and there have been renewed calls for the strengthening of prevention efforts.14

HIV treatment includes the use of combination antiretroviral therapy to attack the virus itself, and medications to prevent and treat the many opportunistic infections that can occur when the immune system is compromised by HIV. In light of recent research findings, WHO released a guideline in 2015 recommending starting HIV treatment earlier in the course of illness.15

- Combination ART, first introduced in 1996, has led to dramatic reductions in morbidity and mortality, and access has increased in recent years, rising to nearly 21 million people as of June 2017.16

- Approximately 44% of all people living with HIV are virally suppressed, which means they are likely healthier and less likely to transmit the virus. Viral suppression varies greatly by region, key population, and sex.17

- The percentage of pregnant women receiving ART for the prevention of mother-to-child transmission of HIV increased to 76% in 2016, up from 47% in 2010. Access to ART among children has also risen significantly, from 17% in 2010 to 43% in 2016.18

The U.S. Government Response

The U.S. first provided funding to address the global HIV epidemic in 1986. U.S. efforts and funding increased slowly over time, intensifying relatively recently. Key initiatives include:

- In 1999, President Clinton announced the Leadership and Investment in Fighting and Epidemic (LIFE) Initiative to address HIV in 14 African countries and in India.

- In 2002, President Bush announced the International Mother and Child HIV Prevention Initiative focused on 12 African and 2 Caribbean countries.

- The Creation of the President’s Emergency Plan for AIDS Relief (PEPFAR) in 2003 brought significant new attention and funding to address the global epidemic, as well as TB and malaria.19 PEPFAR authorized up to $15 billion over 5 years, primarily for bilateral programs and multilateral contributions to the Global Fund to Fight AIDS, Tuberculosis and Malaria (The Global Fund) as well as UNAIDS. In 2008, PEPFAR was reauthorized for an additional 5 years at up to $48 billion and, in 2013, the PEPFAR Stewardship and Oversight Act of 2013 extended a number of existing authorities and strengthened the oversight of the program through updated reporting requirements.20 In FY 2017, Congress appropriated a total of $5.2 billion for bilateral HIV and $1.35 billion for the Global Fund, totaling $6.6 billion.21 The current Administration requested $4.3 billion for bilateral HIV and $1.125 billion for the Global Fund for FY 2018, a significant decrease from the levels of funding in prior years (Figure 2).
Today, there are multiple federal departments, agencies, and programs that address the global epidemic, and the U.S. government is the single largest donor to international HIV efforts in the world, including the largest donor to the Global Fund.22

**The Global Response to HIV/AIDS**

International efforts to combat HIV began in the first decade of the epidemic with the creation of the WHO’s Global Programme on AIDS in 1987. UNAIDS was formed in 1996 to serve as the UN system’s coordinating body and to help galvanize worldwide attention to AIDS. The role of affected country governments and civil society has also been critical to the response. Over time, funding by donors and others has increased and several key initiatives have been launched:

- In 2000, all nations agreed to global HIV targets to halt and begin to reverse the spread of HIV by 2015, as part of the UN Millennium Development Goals (MDGs), and the World Bank launched its Multi-Country AIDS Program (MAP). As of 2015, the AIDS-related targets of MDGs were met.23 In 2015, the international community agreed upon new Sustainable Development Goals (SDGs), which included a target to end the AIDS epidemic by 2030.24

- In 2001, a United Nations General Assembly Special Session on HIV/AIDS (UNGASS) was convened and the Global Fund was created. More recently, at the June 2016 UN General Assembly High-Level Meeting on Ending AIDS, world leaders adopted a new Political Declaration that reaffirmed commitments and called for an intensification of efforts to end AIDS by 2030.25 In 2017, a report of the UN Secretary General emphasized these commitments, calling for the global community to reinvigorate global efforts to respond to AIDS.26

- On World AIDS Day 2014, UNAIDS set targets for 2020 aimed at ending the epidemic by 2030. The targets include achieving “90% of people living with HIV knowing their HIV status; 90% of people who know their HIV-positive status on treatment; and 90% of people on treatment with suppressed viral loads.”27 These goals and targets were reiterated in UNAIDS’ 2016-2021 strategy, which also aligns with the SDGs.28

- Much funding to address HIV in low- and middle-income countries has come from major donor governments who disbursed $7.0 billion in 2016.29 This disbursement represented a decline in funding from donor governments for the second year in a row, however. Hard hit countries have also provided significant resources to address their epidemics. The Global Fund has committed approximately $18.8 billion for HIV efforts in more than 100 countries to date.30 The private sector including foundations and corporations, also plays a major role, particularly the Bill & Melinda Gates Foundation which has committed more than $3 billion for HIV, with additional funding provided to the Global Fund.31

- UNAIDS estimates that $19 billion was available to address HIV in low- and middle-income countries in 2016, but $26.2 billion will be needed annually by 2020 to meet global targets to end AIDS as a global public health threat by 2030.32

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3 UNAIDS. Core Epidemiology Slides; June 2017.


9 UNAIDS. UNAIDS 2016-2021 Strategy; August 2015.

10 UNAIDS. AIDSinfo website; accessed July 2017; UNAIDS. Core Epidemiology Slides; June 2017.


12 WHO. Guideline on When to Start antiretroviral Therapy and on Pre-Exposure Prophylaxis for HIV; September 2015. WHO. WHO expands recommendation on oral pre-exposure prophylaxis of HIV infection (PrEP); November 2015.


UNAIDS. Get on the Fast Track; 2016.


Kaiser Family Foundation analysis of data from the Office of Management and Budget, Agency Congressional Budget Justifications, and Congressional Appropriations Bills. Totals include funding for HIV and the Global Fund.


UNAIDS. Fast-Track: ending the AIDS epidemic by 2030; 2014.

UNAIDS. UNAIDS 2016–2021 Strategy; August 2015.


