The Global HIV/AIDS Epidemic

November 2010

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

- More than 33 million people are currently living with HIV.\(^1\)
- While cases have been reported in all regions of the world, almost all of those living with HIV (97%) reside in low- and middle-income countries, particularly in sub-Saharan Africa.\(^2\)
- Most people living with HIV or at risk for HIV do not have access to prevention, care, and treatment, and there is still no cure.\(^3\)
- HIV primarily affects those in their most productive years; about half of new infections are among those under age 25.\(^2\)
- 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, particularly in the last decade, and there are signs that the epidemic may be changing course. The number of people newly infected with HIV and the number of AIDS-related deaths have declined, contributing to the stabilization of the number of people living with HIV. In addition, the number of people with HIV receiving treatment in resource poor countries has increased more than 13-fold since 2003, reaching more than 5 million by 2009.\(^3\)

New HIV infections are believed to have peaked in the late 1990s and declined between 2001 and 2009, from 3.1 million to 2.6 million. HIV incidence fell by more than 25% in 33 countries between 2001 and 2009. Still, there were more than 7,000 new HIV infections per day in 2009.

Most new infections are transmitted heterosexually, although risk factors vary. In some countries, men who have sex with men, injecting drug users, and sex workers are at significant risk.

Although HIV testing capacity has increased over time, enabling more people to learn their HIV status, the majority of people with HIV are still unaware they are infected.\(^3\)

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.\(^4,5\)

Women represent slightly more than half of all people living with HIV worldwide, and 60% in sub-Saharan Africa. Gender inequalities, differential access to services, 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 41% of new HIV infections (among those 15 and over). In sub-Saharan Africa, the HIV prevalence rate among young women is more than double that of their male counterparts.

Globally, there were 2.5 million children living with HIV in 2009, 370,000 new infections among children, and 260,000 AIDS deaths.\(^2\) There are approximately 16.6 million AIDS orphans (children who have lost one or both parents to HIV), most of whom live in sub-Saharan Africa (89%).

Sub-Saharan Africa. Sub-Saharan Africa, the hardest hit region, is home to more than two-thirds (68%) of people living with HIV but only about 13% of the world’s population.\(^6\) Most children with HIV live in this region (92%). Almost all of the region’s nations have generalized HIV epidemics—that is, their national HIV prevalence rate is greater than 1%. In 9 countries, more than 10% of adults are estimated to be HIV-positive. South Africa has the highest number of people living with HIV in the world (5.6 million). Swaziland has the highest prevalence rate in the world (25.9%). Recent data offer promising signs, with national HIV prevalence and/or incidence stabilizing or even declining in many countries in the region.

Figure 1: Adult HIV Prevalence Rate (Ages 15–49), 2009.\(^1,2\)

Current Global Snapshot

According to the latest global estimates from UNAIDS:\(^1,2\)

- There were 33.3 million people living with HIV at the end of 2009, up from 28.6 in 2001, the result of continuing new infections, people living longer with HIV, and general population growth.
- The global prevalence rate (the percent of people ages 15–49 who are infected) has leveled since 2001 and was 0.8% in 2009.
- 1.8 million people died of AIDS in 2009, down from 2.1 million in 2004. Deaths have declined due, in part, to antiretroviral treatment (ART) scale-up. HIV is a leading cause of death worldwide and the number one cause of death in Africa.

Figure 2: HIV Prevalence & Incidence by Region.\(^1,2\)

Table:

<table>
<thead>
<tr>
<th>Region</th>
<th>Total No. (%) Living with HIV end of 2009</th>
<th>Newly Infected in 2009</th>
<th>Adult Prevalence Rate (15–49), 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Total</td>
<td>33.3 million (100%)</td>
<td>2.6 million</td>
<td>0.8%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>22.5 million (68%)</td>
<td>1.8 million</td>
<td>5.0%</td>
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<tr>
<td>South/South-East Asia</td>
<td>4.1 million (12%)</td>
<td>270,000</td>
<td>0.3%</td>
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<tr>
<td>North America</td>
<td>1.5 million (5%)</td>
<td>70,000</td>
<td>0.5%</td>
</tr>
<tr>
<td>Eastern Europe/Central Asia</td>
<td>1.4 million (4%)</td>
<td>130,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>Central/South America</td>
<td>1.4 million (4%)</td>
<td>92,000</td>
<td>0.5%</td>
</tr>
<tr>
<td>Western/Central Europe</td>
<td>820,000 (2%)</td>
<td>31,000</td>
<td>0.2%</td>
</tr>
<tr>
<td>East Asia</td>
<td>770,000 (2%)</td>
<td>82,000</td>
<td>0.1%</td>
</tr>
<tr>
<td>Middle East/North Africa</td>
<td>460,000 (1%)</td>
<td>75,000</td>
<td>0.2%</td>
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<tr>
<td>Caribbean</td>
<td>240,000 (0.7%)</td>
<td>17,000</td>
<td>1.0%</td>
</tr>
<tr>
<td>Oceania</td>
<td>57,000 (0.2%)</td>
<td>4,500</td>
<td>0.3%</td>
</tr>
</tbody>
</table>
Central/South America & the Caribbean. About 1.6 million people are estimated to be living with HIV in Central/South America and the Caribbean combined, including 109,000 newly infected in 2009. The Caribbean itself, with an adult HIV prevalence rate of 1.0%, is the second hardest hit region in the world after sub-Saharan Africa. Eight countries in Central/South America and the Caribbean have generalized epidemics, with the Bahamas having the region’s highest prevalence rate (3.1%), and Brazil the greatest number of people living with the disease (between 460,000 and 810,000).

Eastern Europe & Central Asia. An estimated 1.4 million people are living with HIV in this region, up from 760,000 in 2001 (an 84% increase). The epidemic is driven primarily by injecting drug use, although heterosexual transmission also plays an important role. The Russian Federation and Ukraine have the highest prevalence rates in the region, and Russia has the region’s highest number of people living with HIV (980,000).

Asia. Nearly 5 million people are living with HIV across South/South-East Asia and East Asia. While most national epidemics appear to have stabilized, HIV prevalence is increasing in Bangladesh, Pakistan, and the Philippines. The region is also home to the two most populous nations in the world – China and India – and even relatively low prevalence rates translate into large numbers of people.

Prevention and Treatment
Numerous prevention interventions exist to combat HIV, and new tools, such as microbicides and vaccines, are currently being researched. Effective prevention strategies include behavior change programs, condoms, HIV testing, blood supply safety, harm reduction efforts for injecting drug users, and male circumcision. 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.

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.

Combination ART, first introduced in 1996, has led to dramatic reductions in morbidity and mortality, and access has increased in recent years, rising from less than half a million in 2003 to more than 5 million in 2009 (36% of those in need).

The greatest increase was in Sub-Saharan Africa, where the number of people receiving ART surpassed 3.9 million in 2009.

The share of pregnant women receiving ART for the prevention of mother-to-child transmission of HIV increased from 15% in 2005 to 53% in 2009. Access to ART among children has also risen significantly, although they have less access than adults.

Despite these successes, more than 60% of those in need of ART still have not received it.

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 an 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. PEPFAR authorized up to $15 billion over 5 years, primarily to 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 for HIV, TB, and malaria efforts. In FY 2010, Congress appropriated $6.8 billion for PEPFAR (most of which is for HIV and the Global Fund, with a smaller amount for TB; malaria funding is counted separately).

• 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. In May 2009, President Obama announced the Global Health Initiative, proposing $63 billion over 6 years, to build on PEPFAR, but also to expand U.S. efforts in other areas, which will likely lead to an evolving role for PEPFAR.

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 also has 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).

• In 2001, a United Nations General Assembly Special Session on HIV/AIDS (UNGASS) was convened and the Global Fund was created. More recently, in 2006, UNAIDS launched a Universal Access Campaign to reach universal treatment access by 2010.

• As a result of increased efforts, total global spending on HIV rose from $300 million in 1996 to $15.9 billion in 2009. Most funding has come from international donors who, in 2009, committed $8.7 billion to address HIV in developing countries. Hard hit countries have also provided significant resources to address their epidemics. The Global Fund has approved $11 billion in grants to more than 100 countries for HIV efforts to date, and the private sector, including foundations and corporations, also plays a major role, particularly the Bill & Melinda Gates Foundation which has committed $2.2 billion for HIV to date, with additional funding provided to the Global Fund.

• Despite these increases, according to UNAIDS, resource needs are still estimated to be much higher (approximately $25.1 billion in 2010), leaving a significant gap.

9 KFF. The U.S. President’s Emergency Plan for AIDS Relief; November 2009.
10 UNAIDS. What countries need: Investments needed for 2010 Targets; February 2009.
12 The White House, Office of the Press Secretary. Statement by the President on Global Health Initiative; May 5, 2009.
13 KFF. The U.S. & The Global Fund to Fight AIDS, Tuberculosis and Malaria; November 2010.
15 UNAIDS. What countries need: Investments needed for 2010 Targets; February 2009.
16 Figure 3: Total PEPFAR Funding, FY 2004–2011

<table>
<thead>
<tr>
<th>Year</th>
<th>In Millions</th>
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<tbody>
<tr>
<td>FY 2004</td>
<td>$2,311</td>
</tr>
<tr>
<td>FY 2005</td>
<td>$2,719</td>
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<tr>
<td>FY 2006</td>
<td>$3,290</td>
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<tr>
<td>FY 2007</td>
<td>$4,518</td>
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<td>FY 2008</td>
<td>$5,901</td>
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<tr>
<td>FY 2009</td>
<td>$6,680</td>
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<tr>
<td>FY 2010</td>
<td>$6,835</td>
</tr>
<tr>
<td>FY 2011*</td>
<td>$6,989</td>
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</tbody>
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*FY 2011 figure is President’s budget request only.