

On the Path to an AIDS-Free Generation: Turning the Tide of the Epidemic

Proven science, smart investments, and shared responsibility

or 30 years CDC has played a leading role in achieving scientific progress and translating science into action to save millions of lives in the global fight against HIV/AIDS.

Recent scientific advances now offer a historic new opportunity – using existing tools – to dramatically drive down the rate of new HIV infections and virtually eliminate infections in babies and children. The science shows that using proven prevention tools, we can reduce the number of new infections, increase the number of people receiving treatment, and eventually start to treat more people than are being infected each year. Instead of falling behind the pace of the epidemic, we will, for the first time, get ahead of it. We will be able to turn the tide in the global epidemic.

This exciting research news provided the impetus for Secretary of State Hillary Clinton's call to action in November 2011 for pursuing an AIDS-free generation (see sidebar) and President Obama's announcement of the accelerated treatment goal and "the beginning of the end of AIDS" in December 2011 on World AIDS Day.

Scientific advances guide strategy

Three key scientific interventions have been identified as pivotal for drastically reducing new HIV infections: (1) scaling-up treatment for people living with HIV/AIDS, (2) ending mother-to-child transmission of the HIV virus, and (3) expanding voluntary medical male circumcision. When used in combination with each other, along with HIV testing and counseling, condoms, prevention for key populations and other prevention tools, these interventions put us on a plausible path for eliminating new infections.

Through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the United States is working to support an optimal mix of these three prevention interventions. As the primary science-based public health and disease prevention agency and with longstanding, trusted relationships with foreign Ministries of Health, CDC plays a key role in implementing this strategy. The three prevention interventions are described below.

Science must continue to guide these prevention efforts. More research is being conducted to identify the most effective means to scale-up interventions in different regions and countries. The data will help the U.S. government and partner countries strengthen their efforts to prevent new infections and save even more lives.

1) Scaling-up treatment of HIV-positive persons ("treatment as prevention")



Recent science has shown that when people are HIV positive, treatment with antiretroviral drugs helps prevent the transmission of the HIV virus to others. Effective treatment of a person living with HIV reduces the risk of transmission to a partner by up to 96%, a success rate similar to that of a vaccine.

Progress and Goal

- As of September 2012, CDC, through PEPFAR, helped support nearly **5.1 million** men, women and children with life-saving antiretroviral treatment.
- By the end of 2013, CDC, through PEPFAR, will help support more than **6 million** people on these life-saving drugs.

"While the finish line is not yet in sight, we know we can get there, because now we know the route we need to take."

> Secretary of State Hillary Clinton, Nov. 2011



Photo: David Snyder/CDC Foundation

An AIDS-Free Generation

In her speech on November 8, 2011, Secretary of State Hillary Clinton called on the United States and other countries to use recent scientific breakthroughs to create an AIDS-free generation. An AIDS-free generation means that

- Virtually no children are born infected with the HIV virus
- As these children become teens and adults, they are at far lower risk of becoming infected than they would be today, thanks to a wide range of HIV prevention tools
- If they do acquire the HIV virus, they have access to treatment that helps prevent them from developing AIDS and passing the virus to others

2) Preventing mother-to-child transmission of HIV



An HIV-positive mother is at risk of transmitting the HIV virus to her child during pregnancy, labor, delivery, or breastfeeding. In 2011, approximately 330,000 children around the world were born with HIV. Mother-to-child transmission has been virtually eliminated in the developed world. Identifying and treating HIV-positive pregnant women with antiretroviral drugs is very effective in eliminating new pediatric infections. This approach is also critical for saving the lives of mothers and preventing other children in the family from being orphaned.

Progress and Goal

- As of September 2012, CDC, through PEPFAR, helped support
 - HIV testing and counseling for more than 11 million pregnant women
 - Treatment for nearly **750,000** of these pregnant women who were HIV positive with antiretroviral drugs to prevent their transmitting the HIV virus to their babies
 - Prevention of approximately **230,000** infant infections
- By the end of 2013, the United States will reach more than **1.5 million** HIV-positive pregnant women with antiretroviral drugs to prevent them from passing the HIV virus to their children. To achieve this goal, CDC, through PEPFAR, is supporting the rapid scale-up of high quality services for preventing mother-to-child-transmission.

3) Expanding voluntary medical male circumcision



Medical male circumcision is a one-time intervention with a lifelong benefit. This low-cost procedure reduces the risk that women with HIV will transmit the HIV virus to HIV-negative men by more than 60%. HIV-negative women also benefit from the lower rate of infections among men.

Progress and Goal

- Through PEPFAR, CDC helped support Medical circumcision procedures for approximately **2 million** men (cumulatively through September 2012)
- By the end of 2013, CDC, through PEPFAR, will help support over **4.7 million** voluntary medical male circumcisions in Eastern and Southern Africa.

Smart investments for impact and efficiency

CDC's strategy through PEPFAR is to apply scientific evidence and extensive programmatic experience to support the highest impact interventions and deliver them effectively and efficiently to maximize health outcomes. Annual costs for treating patients through PEPFAR have dropped dramatically, from more than \$1100 per patient in 2004 when the program began to \$335 in fiscal year 2010. This efficiency gain translates into more lives being saved, more productive adults, and more stable economies for countries. PEPFAR investments are also being leveraged as a strong platform for the U.S. Global Health Initiative, which supports one-stop clinics offering an array of health services while driving down costs, driving up impact, and saving more lives.

Shared responsibility for an AIDS-free generation

Investments in global health are a pillar of American leadership, advancing our national interests, making other countries more stable and the United States more secure. The global AIDS response is a shared responsibility and President Obama and Secretary Clinton have called on the world to join the United States in this undertaking.

Countries must manage and lead their own national AIDS programs for long-term sustainability. CDC is working with partner countries to build their capacity to lead their national responses and increase their own AIDS funding. Through its in-country presence, CDC provides critical leadership for implementing and transitioning sustainable programs to country ownership

CDC's role in transitioning HIV/AIDS programs to country ownership

CDC works side-by-side with Ministries of Health in 43 countries to build their capacity to lead and manage their national HIV/AIDS programs by:

- **Providing direct technical assistance and knowledge transfer** through long-standing relationships with Ministries of Health. This in-country presence has resulted in increased performance, capacity development, country ownership, and public health impact.
- Building a trained local workforce through daily mentoring to nearly 1,000 locally employed staff by CDC's highly trained clinicians, epidemiologists, public health advisors, health scientists, and laboratory scientists. CDC also provides training programs and funding to local educational institutions to establish a pipeline of qualified, well-trained public health professionals.