



HIV and AIDS

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Forty Million People Are Infected With HIV— 26 Million in Sub-Saharan Africa

With 40 million people living with HIV worldwide, the HIV/AIDS epidemic threatens every aspect of global economic development. In 2005, close to 5 million people were newly infected with HIV, and 3 million died of an AIDS-related illness. HIV/AIDS is among the top 10 causes of death in developing countries, and the leading cause of death in Sub-Saharan Africa. Although Sub-Saharan Africa is the hardest-hit region, prevalence of HIV is spreading into parts of Asia and Eastern Europe with alarming speed.

HIV is transmitted primarily through three mechanisms: sexual intercourse (accounting for about 80 percent of infections worldwide); exposure to infected blood or blood products; and transmission by HIV-infected mothers to their newborns.

While the international community recognizes the urgency and importance of stopping the AIDS epidemic, resources have fallen short of needs. Although known interventions could prevent nearly two-thirds of new infections projected to occur between 2002 and 2010, fewer than one in five

people at high risk of infection have access to the most basic prevention services.

Controlling the epidemic requires political commitment and leadership at the highest levels, not only to prevent the transmission of HIV but also to treat and care for people who develop AIDS.

Targeting High-Risk Groups

Prevention efforts target people whose behavior puts them at high risk of infection. In most countries, these key groups include sex workers and their clients, men who have sex with men, and injecting drug users. Because HIV and AIDS have been associated with behavior that is illegal or objectionable in many societies, people living with HIV are often subject to shame, stigma, and discrimination. Combating this stigma is important for controlling the epidemic because shame and fear of discrimination keep many people from getting tested for HIV-infection, having safe sex, or seeking treatment.

Epidemic Profiles

Extent of HIV infection	Highest prevalence in a key population ^a (percent)	Prevalence in the general population (percent)	WHO region
Low level	< 5	< 1	Middle East and North Africa
Concentrated ^b	> 5	< 1	East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, South Asia
Generalized low level	≥ 5	1–10	Sub-Saharan Africa
Generalized high level	≥ 5	≥ 10	Sub-Saharan Africa

a. Key populations include sex workers, men who have sex with men, and injecting drug users.

b. We consider three types of concentrated epidemics depending on the key population most affected: sex workers, men who have sex with men, and injecting drug users.

Source: Bertozzi, S., N. S. Padian, J. Wegbreit, L. M. DeMaria, B. Feldman, H. Gayle, and others. 2006. "HIV/AIDS Prevention and Treatment." In *Disease Control Priorities in Developing Countries*, 2nd ed., ed. D. T. Jamison, J. G. Breman, A. R. Measham, G. Alleyne, M. Claeson, D. B. Evans, P. Jha, A. Mills, and P. Musgrove, table 18.5. New York: Oxford University Press.

Proven interventions to prevent transmission include:

- Promote 100 percent condom use, especially among populations at risk, including sex workers, injecting drug users, and men who have sex with men.
- Support voluntary testing and counseling, so people can learn their HIV status and receive support if they are HIV-positive.
- Treat other sexually transmitted infections (STIs). Risk of HIV-infection through sexual intercourse is much greater when other STIs are present.
- Prevent mother-to-child transmission through antiretroviral therapy and giving breast milk substitutes when appropriate.
- Provide reproductive health services to women who are infected with HIV to avoid unwanted pregnancies.
- Eliminate use of contaminated needles and syringes by making sterile equipment available.
- Require universal safety precautions by health care workers—including using gloves and goggles to avoid contact with bodily fluids.
- Screen for HIV all blood and blood products for medical use.
- Inform the public about how to avoid HIV infection.
- Fight the stigma and discrimination associated with HIV and AIDS.

Where HIV-prevalence is high among the general population, as it is in many Sub-Saharan countries, controlling HIV and AIDS requires much more aggressive interventions that reach the entire population.

Treatment and Care of AIDS Patients

Without treatment, a person infected with HIV suffers a progressive depletion of the immune system and usually develops serious infections within five to seven years of infection. AIDS is not curable, but enormous advances in HIV/AIDS treatment have opened new options for slowing the progression of the disease. Cotrimoxazole, for example, is a low-cost drug that prevents *pneumocystis jiroveci* pneumonia, an opportunistic infection that often signals the onset of AIDS. In Africa, about one-third of the people living with HIV are also infected with tuberculosis, which complicates the treatment of both diseases. The cost of antiretroviral drugs has dropped because of international agreements and pressure on pharmaceutical companies to make generic drugs available. However, such drugs are underutilized in developing countries.

Finally, care of AIDS patients benefits from psychosocial services and palliative care, and must also address the needs of the family members involved.

Supporting New Research

Medical research has produced many breakthroughs in the diagnosis and treatment of HIV/AIDS, but much more research is needed, especially to develop drugs to combat drug resistance. Current research into microbicides, male circumcision, vaccines, and other interventions may also yield important benefits. Additional research is also urgently needed to evaluate current programs and treatment approaches to the management of AIDS, and to learn from their success or failure.

For More Information

Bertozi, S., N. S. Padian, J. Wegbreit, L. M. DeMaria, B. Feldman, H. Gayle, and others. 2006. "HIV/AIDS Prevention and Treatment." In *Disease Control Priorities in Developing Countries*, 2nd ed., ed. D. T. Jamison, J. G. Breman, A. R. Measham, G. Alleyne, M. Claeson, D. B. Evans, P. Jha, A. Mills, and P. Musgrove, 331–70. New York: Oxford University Press.