# **CRS Issue Brief for Congress**

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# **AIDS in Africa**

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### SUMMARY

Sub-Saharan Africa has been more severely affected by AIDS than any other part of the world. The United Nations reports that 26.6 million adults and children are infected with the HIV virus in the region, which has about 10% of the world's population but twothirds of the worldwide total of infected people. The overall rate of infection among adults in sub-Saharan Africa is 7.5%-8.5%, compared with 1.1% worldwide. Twelve countries, mostly in east and southern Africa, have HIV infection rates of more than 10%: the rate has reached 38.8% in Botswana. As of 2003, an estimated 22.9 million Africans had died of AIDS, including 2.3 million who died in that year. AIDS has surpassed malaria as the leading cause of death in Africa, and it kills many times more Africans than war. In Africa, 58% of those infected are women.

Experts relate the severity of the African AIDS epidemic to the region's poverty. Health systems are ill-equipped for prevention, diagnosis, and treatment. Poverty forces many men to become migrant workers in urban areas, where they may have multiple sex partners. Poverty leads many women to become commercial sex workers, vastly increasing their risk of infection.

AIDS' severe social and economic consequences are depriving Africa of skilled workers and teachers while reducing life expectancy by decades in some countries. An estimated 11 million AIDS orphans are currently living in Africa, facing increased risk of malnutrition and reduced prospects for education. AIDS is being blamed for declines in agricultural production in some countries, and is regarded as a major contributor to the famine threatening southern Africa. Donor governments, non-governmental organizations, and African governments have responded primarily by attempting to reduce the number of new HIV infections and by trying to ameliorate the damage done by AIDS to families, societies, and economies. The adequacy of this response is the subject of much debate. U.N. experts estimate Africa's resource needs for fighting AIDS in 2004 at \$8 billion, but project expenditures of \$6 billion from all sources, including households.

Treatment of AIDS sufferers with medicines that can result in long-term survival is reportedly available to 50,000-75,000 Africans at present. However, U.S. and other initiatives are expected to sharply expand the availability of treatment in the near future. Advocates see expanded treatment as an affordable means of reducing the impact of the pandemic. Skeptics question whether treatment can be widely provided without costly improvements in health infrastructure.

U.S. concern over AIDS in Africa grew during the 1980s, as the severity of the epidemic became apparent. Legislation enacted in the 106<sup>th</sup> and the 107<sup>th</sup> Congresses increased funding for worldwide HIV/AIDS programs. H.R. 1298, signed into law (P.L. 108-25) on May 27, 2003, authorized \$15 billion over five years for international AIDS programs. President Bush announced his Emergency Plan for AIDS Relief (PEPFAR) in the 2003 State of the Union message. Twelve of the 15 focus countries are in sub-Saharan Africa, and are slated to receive just over \$1 billion through the State Department's new Global AIDS Initiative under the FY2005 budget request. Nonetheless, activists and others urge that more be done in view of the scale of the African pandemic.



## **MOST RECENT DEVELOPMENTS**

On April 6, 2004, the Clinton Foundation announced an agreement with UNICEF, the World Bank, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria to expand a program making generic 3-drug antiretroviral therapy available to AIDS patients for \$.38 per day. The initial program, announced in October 2003, had been available in 16 African and Caribbean programs, but under the new agreement, the low-cost antiretrovirals would be available in more than 100 developing countries worldwide. The *Financial Times* reported on April 6 that the United States was withholding support from a program intended to treat 140,000 AIDS patients in Kenya with antiretrovirals because the program would rely on a generic 3-drug combination pill.

At a March 29-31 international meeting in Botswana, called to evaluate the use of such pills in poor country settings, U.S. officials reportedly expressed concerns that further study was needed to assure that their widespread or improper distribution did not contribute to the emergence of resistant HIV strains. The issue was submitted to a panel of experts instructed to report by mid-May 2004. Several members of Congress wrote to President Bush in March and April asking that the United States join an international consensus that generics are safe and essential for the treatment of AIDS. A U.S. Bureau of the Census report, [http://www.census.gov/prod/2004pubs/wp02-2.pdf], released on March 23, predicted population declines by 2010 in South Africa, Botswana, and three other African countries due to AIDS. Sharp declines in life expectancy were also projected in many African countries.

For further information, see CRS Report RS21181, *HIV/AIDS International Programs: Appropriations, FY2002-FY2004*; CRS Report RL31712, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background and Current Issues*; and CRS Report RS21609, *The WTO, Intellectual Property Rights, and the Access to Medicines Controversy* 

## **BACKGROUND AND ANALYSIS**

Sub-Saharan Africa has been far more severely affected by AIDS than any other part of the world. In December 2003, UNAIDS (the Joint United Nations Program on HIV/AIDS) reported that in 2003, 26.6 million people were living with HIV and AIDS in sub-Saharan Africa, including 3.2 million newly infected during the year. Africa has about 10% of the world's population but approximately two-thirds of the worldwide total of infected people. The infection rate among adults averages 7.5%-8.5% in Africa, compared with 1.1% worldwide. According to UNAIDS estimates, approximately 22.9 Africans have died of AIDS since the beginning of the epidemic, including an estimated 2.3 million who died in 2003. UNAIDS projects that between 2000 and 2020, 55 million Africans can be expected to lose their lives to the epidemic. (*Report on the Global HIV/AIDS Epidemic,* 2002, p. 46.) AIDS has surpassed malaria as the leading cause of death in sub-Saharan Africa, and it kills many times more people than Africa's armed conflicts.

# **Characteristics of the African Epidemic**

- HIV, the human immunodeficiency virus that causes AIDS, is spread in Africa, most experts believe, primarily by heterosexual contact. (A February 2003 article published by David Gisselquist and others in the *International Journal of STD and AIDS* asserted that the importance of unsafe medical practices in the spread of HIV may have been underestimated. A February 2004 article in *The Lancet* rejects this hypothesis, and affirms that sexual transmission "continues to be the major mode of spread" of HIV.<sup>1</sup>)
- Women make up an estimated 58% of the HIV-positive adult population in sub-Saharan Africa, as compared with 50% worldwide, according to UNAIDS. Young women are particularly at risk. In 2001, an estimated 6% to 11% of African women aged 15 to 24 were HIV positive, compared with 3% to 6% of young men. (UNAIDS, *AIDS Epidemic Update, December 2002*). A Human Rights Watch study released on August 13, 2003, reported that domestic violence made women in Uganda more vulnerable to HIV infection for example by depriving them of the power to negotiate condom use.
- Southern and eastern Africa have been far more severely affected than West Africa, but infection rates in a number of West African countries are rising. In seven southern African countries, 20% or more of the adult population is infected with HIV, and the rate has reached 38.8% in Botswana. In Cameroon, a West African country, the adult infection rate jumped from 4.7% in 1996 to 11.8% in 2001. In Nigeria, with a population that exceeds 125 million, an estimated 5.8% of adults were HIV positive in 2001, and infection rates in some Nigerian states have reached levels seen in neighboring Cameroon. The U.S. National Intelligence Council, in a September 2002 report on the "next wave of HIV/AIDS," predicted that by 2010, 10 to 15 million Nigerians, or 18% to 26% of adults, would be infected by HIV.
- The African AIDS epidemic is having a much greater impact on children than is the case in other parts of the world. According to UNAIDS, more than 600,000 African infants become infected with HIV each year through mother-to-child transmission, either at birth or through breast-feeding. These children have short life expectancies, and the number currently alive may be about 1 million.
- In 2001, an estimated 11 million children orphaned by AIDS were living in Africa, and an authoritative report estimates that by 2010, 20.1 million children will have lost one or both parents to AIDS. Because of the stigma attached to the AIDS disease, AIDS orphans are at high risk for being malnourished, abused, and denied an education. UNICEF released a report,

<sup>&</sup>lt;sup>1</sup> George P. Schmid and others, "Transmission of HIV-1 Infection in Sub-Saharan Africa and Effect of Elimination of Unsafe Injections," *The Lancet*, February 7, 2004.

*Africa's Orphaned Generations*, on November 26, 2004, predicting that there would be 20 million AIDS orphans in Africa by 2010, and that in a dozen countries, 15% to 25% of children under 15 will have lost one or both parents to AIDS. Among other measures, the report recommended efforts to strengthen the capacity of families to protect and care for orphans.

# **Explaining the African Epidemic**

AIDS experts emphasize a variety of economic and social factors in explaining Africa's

AIDS epidemic, placing primary blame on the region's poverty. Poverty has deprived Africa of effective systems of health information, health education, and health care. Thus, Africans suffer from a high rate of untreated sexually-transmitted infections (STIs) other than AIDS, and these increase susceptibility to HIV. African health systems typically have limited capabilities for AIDS prevention work, and HIV counseling and testing are difficult for many Africans to obtain. To date, AIDS treatment has been generally available only to the elite.

Poverty forces large numbers of African men to migrate long distances in search of work, and while away from home they may have multiple sex partners, increasing their risk of infection. Some of these partners may be women who have become commercial sex workers because of poverty, and they too are highly vulnerable to infection. Migrant workers may carry the infection back to their wives when they return home. Long distance truck drivers, and drivers of "taxis," who transport Africans long distances by car, are probably also key agents in spreading HIV.

Some behavior patterns in Africa may also be affecting the epidemic. In explaining the fact that young women are infected at a higher rate than young men, Peter Piot, the Executive Director UNAIDS, has commented that "the unavoidable conclusion is that girls are getting infected not by boys but by older men," who are more likely than young men to carry the disease. (UNAIDS press release, September 14, 1999.) UNAIDS notes that "with the downward trend of many African economies ... relationships with (older) men can serve as vital opportunities for financial and social security, or for satisfying material aspirations."

Adult HIV Infection Rates (%), end of 2001						
Botswana	38.8					
Swaziland	33.4					
Lesotho	31.0					
Zimbabwe	25.0					
Namibia	22.5					
Zambia	21.5					
South Africa	20.1					
Malawi	15.0					
Kenya	15.0					
Mozambique	13.0					
Cent. Af. Republic	12.9					
Cameroon	11.8					
Cote d'Ivoire	9.7					
Rwanda	8.9					
Burundi	8.3					
Tanzania	7.8					
Congo Brazzaville	7.2					
Sierra Leone	7.0					
Burkina Faso	6.5					
Ethiopia	6.4					
Togo	6.0					
Nigeria	5.8					
Angola	5.5					
Uganda	5.0					
Congo Kinshasa	4.9					
Benin	3.6					
Chad	3.6					
Equatorial Guinea	3.4					
Ghana	3.0					
Eritrea	2.8					
Guinea Bissau	2.8					
Sudan	2.6					
Mali	1.7					
Somalia	1.0					
Senegal	.5					
Madagascar	.3					
Mauritius	.1					

Source: UNAIDS, Report on the Global HIV/AIDS Epidemic, July 2002. Data not available for the following countries: Comoros, Djibouti, Gabon, Gambia, Guinea, Liberia, Mauritania, Niger. The Zimbabwe estimate represents a technical correction issued in 2003. The previous estimate had been 34%. Updated figures for all countries are expected in July 2004.

(*AIDS Epidemic Update, 2002*). Many believe that the infection rate among women generally would be far lower if women's rights were more widely respected in Africa and if women exercised more power in political and economic affairs. (For more on these issues, see Helen Epstein, "AIDS: the Lesson of Uganda," *New York Review of Books*, July 5, 2001; and "The Hidden Cause of AIDS," *New York Review of Books*, May 9, 2002.)

The breakdown in social order and social norms caused by armed conflict is also contributing to the African epidemic. Conflict is typically accompanied by numerous incidents of violence against women, including rape, carried out by soldiers and guerrillas. Such men are also more likely to resort to commercial sex workers than those living in a settled environment. ("Cycle of War is Spreading AIDS and Fear in Africa," *Washington Post*, November 13, 2003; "AIDS Lurks as War Scourge in Congo," *Washington Times*, November 13, 2003).

#### Leadership Reaction in South Africa and Elsewhere

Many observers believe that the spread of AIDS in Africa could have been slowed if African leaders had been more engaged and outspoken in earlier stages of the epidemic. President Thabo Mbeki of South Africa has come in for particular criticism on this score. Concern over the consequences of AIDS in South Africa is high, since the number of infected people there — 4.7 million at the end of 2001 — is larger than in any other country. In April 2000, President Mbeki wrote then President Clinton and other heads of state defending dissident scientists who maintain that AIDS is not caused by the HIV virus. In March 2001, Mbeki rejected appeals that the national assembly declare the AIDS pandemic a national emergency, and in September of that year, the South African government attempted to delay publication of a South African Medical Research Council report, which found AIDS to be the leading cause of death, accounting for 40% of mortality among South Africans aged 15 to 49. The Council predicted that South Africa's death toll from AIDS would reach a cumulative total of between 5 and 7 million by 2010, when 780,000 people would be dying annually from the disease. Life expectancy would fall from 54 years at present to 41 by the end of the decade, according to the Council.

Under mounting domestic and international pressure, the South African government seemed to modify its position significantly after an April 2002 cabinet meeting on the AIDS crisis. The cabinet announced that it would triple the national AIDS budget, end official opposition to the provision of antiretrovirals for rape victims, and launch a program for universal access to drugs to prevent mother-to-child transmission. AIDS activists welcomed the policy changes, but some expressed concerns about implementation or pointed out that South Africa was still far from providing access to treatment for all those in need.

In July 2002, South Africa's Constitutional Court denied the government's appeal against lower court decisions ordering it to begin providing the antiretroviral drug Nevirapine nationwide to reduce the transmission of HIV from pregnant mothers to their newborns. The South African Treatment Action Campaign (TAC) had launched the suit in August 2001, demanding a comprehensive program to prevent mother-to-child transmission (MTCT). TAC maintained that MTCT trials involving 18 pilot projects providing Nevirapine to HIV-positive pregnant women were inadequate and that 20,000 babies could be saved by a nationwide program. The German firm Boerhringer-Ingelheim offers the Nevirapine drug free in Africa for MTCT programs. South African officials maintained that safety

precautions required further testing of Nevirapine but accepted the Constitutional Court's decision.

The April 2002 cabinet pledges and the court decision eased tensions in South Africa over AIDS policy for some months, but activists undertook a new civil disobedience campaign in March and April 2003, charging two government ministers with "manslaughter" for failing to provide treatment to those suffering with AIDS. Government officials responded that the cost of providing universal treatment was still being determined, and the ruling African National Congress accused TAC of "bully boy tactics." (*South African Press Association*, March 26, 2003.) According to a *Financial Times* report on July 9, 2003, a representative of the United Nations Development Program (UNDP) said that South Africa had fallen 28 places on the UNDP Human Development Index since 1990 — to 111<sup>th</sup> place out of 175 countries — primarily due to AIDS.

On August 8, 2003, the South African cabinet instructed the health ministry to develop a plan by the end of September to provide antiretroviral treatment nationwide. AIDS activists and others welcomed the decision, but some expressed concern that implementation of such a program might still be far in the future. By March 2004, TAC was threatening a further lawsuit, but on April 1, the government finally began the program by offering treatment at 5 hospitals in Gauteng province, centered on Johannesburg. Officials said they expected 50,000 patients to be on antiretrovirals by the end of 2004 and 1.4 million to be receiving the drugs by 2009.

In the rest of Africa, many heads of state and other leaders are now taking major roles in fighting the epidemic. President Yoweri Museveni of Uganda has long been recognized for leading a successful prevention campaign against AIDS in his country, and Uganda's ABC (Abstinence, Be Faithful, or Use Condoms) transmission prevention program has won wide praise. ("Uganda Leads by Example on AIDS," Washington Times, March 13, 2003.) A Senate Foreign Relations Africa Subcommittee hearing on May 19, 2003, focused on "Fighting AIDS in Uganda: What Went Right." Dr. Anne Peterson, Assistant Administrator for Global Health at the U.S. Agency for International Development (USAID), testified that the "Uganda success story is about prevention." She said that successes had been recorded in promoting abstinence and faithfulness to partners, while increased condom use in recent years had also contributed to the decline in prevalence. Sophia Mukasa Monico, a member of the Global Health Council and a former AIDS worker in Uganda, testified that all three program elements need to be in place for prevention to work. Mukasa Monico noted that "the epidemic is still raging in Uganda, and we have much to do before we can claim victory...." On June 10, during a meeting with President Museveni at the White House, President Bush praised the Ugandan leader's "extraordinary leadership on HIV/AIDS in your country." According to the Ugandan minister of health, the government will begin providing free antiretroviral treatment to AIDS patients in 2004, using funds provided by the Global Fund to Fight AIDS, Tuberculosis, and Malaria and by the World Bank.<sup>2</sup>

Meanwhile, the presidents of Botswana, Nigeria, and several other countries are widely seen today as in the forefront of the AIDS struggle as well. Kenya's new president, Mwai Kibaki, elected in December 2002, has declared "total war on AIDS" and committed his

<sup>&</sup>lt;sup>2</sup> Ugandan press report, December 17, 2003.

government to treating 40,000 AIDS patients. ("In Another Break with Past, Kenyans See Hope on AIDS," *Washington Post*, May 21, 2003.) Several regional AIDS initiatives have been launched. For example, in August 2003, the Southern African Development Community (SADC) agreed to an AIDS strategic framework, including the creation of a \$10.5 million regional fund to fight the disease.

# **Social and Economic Consequences**

AIDS is having severe social and economic consequences in Africa, and these negative effects are expected to continue for many years. A January 2000 Central Intelligence Agency National Intelligence Estimate on the infectious disease threat, made public in an unclassified version, forecasts grave problems over the next 20 years.

At least some of the hardest-hit countries, initially in sub-Saharan Africa and later in other regions, will face a demographic catastrophe as HIV/AIDS and associated diseases reduce human life expectancy dramatically and kill up to a quarter of their populations over the period of this Estimate. This will further impoverish the poor, and often the middle class, and produce a huge and impoverished orphan cohort unable to cope and vulnerable to exploitation and radicalization. (CIA, *The Global Infectious Disease Threat and Its Implications for the United States* [http://www.odci.gov], "Publications and Reports".)

The estimate predicted increased political instability and slower democratic development as a result of AIDS. According to the World Bank,

The illness and impending death of up to 25% of all adults in some countries will have an enormous impact on national productivity and earnings. Labor productivity is likely to drop, the benefits of education will be lost, and resources that would have been used for investments will be used for health care, orphan care, and funerals. Savings rates will decline, and the loss of human capital will affect production and the quality of life for years to come. (World Bank, *Intensifying Action Against HIV/AIDS in Africa.*)

In the most severely affected countries, sharp drops in life expectancy are occurring, and these will reverse major gains achieved in recent decades. According to UNAIDS, as a result of AIDS, average life expectancy in sub-Saharan Africa is now 47 years, whereas it would have been 62 years without the epidemic. South Africa and some other countries in southern Africa could face population declines by the end of the decade, according to experts.

According to many reports, AIDS has devastating effects on rural families. The father is typically the first to fall ill, and when this occurs, farm tools and animals may be sold to pay for his care. Should the mother also become ill, children may be forced to shoulder responsibility for the full time care of their parents. The Food and Agriculture Organization of the United Nations reports that since the epidemic began, 7 million agricultural workers have been killed in Africa. The agricultural workforce has been reduced by more than 20% in five countries (FAO, *HIV/AIDS, Food Security, and Rural Livelihoods*, May 2002), and a number of experts are relating serious food shortages in southern Africa in 2002 and 2003 to production losses caused by AIDS. (See "Cursed Twice Over — AIDS and Famine in Southern Africa," *The Economist*, February 15, 2003.) World Food Program Executive Director James Morris, testifying before the Senate Foreign Relations Committee on February 25, 2003, and the House International Relations Committee on February 27, said that HIV/AIDS was a central cause of the famine.

AIDS is being blamed for shortages of skilled workers and teachers in several countries. A May 2002 World Bank study, *Education and HIV/AIDS: A Window of Hope*, reported that more than 30% of teachers are HIV positive in parts of Malawi and Uganda, 20% in Zambia, and 12% in South Africa. AIDS is also claiming many lives at middle and upper levels of management in both business and government. Although unemployment is generally high in Africa, trained personnel are not readily replaced.

AIDS may have serious security consequences for much of Africa, since HIV infection rates in many armies are extremely high. Domestic political stability could also be threatened in African countries if the security forces become unable to perform their duties due to AIDS. Peacekeeping is also at risk. South African soldiers are expected to play an important peacekeeping role in Africa in the years ahead, but this could be threatened. Estimates of the infection rate in the South Africa army run from 17% to 40%, with higher rates reported for units based in heavily infected KwaZulu-Natal province.

#### **Responses to the AIDS Epidemic**

Donor governments, non-governmental organizations (NGOs) working in Africa, and African governments have responded to the AIDS epidemic primarily by attempting to reduce the number of new HIV infections, and to some degree, by trying to ameliorate the damage done by AIDS to families, societies, and economies. A third possible response, treatment of AIDS sufferers with medicines that can result in long-term survival, has not been widely used in Africa, largely due to cost; but treatment programs seem certain to expand in the near future (see below, **AIDS Treatment Issues**).

Programs and projects aimed at combating the epidemic typically provide information on how HIV is spread and on how it can be avoided through the media, posters, lectures, and skits. Donor-sponsored voluntary counseling and testing (VCT) programs, where available, enable African men and women to learn their HIV status. Those testing positive are typically referred to support groups and advised on ways to protect others from contracting the disease; while the majority testing negative are counseled on behavior changes that will keep them HIV-free. AIDS awareness programs can be found in many African schools and increasingly in the workplace, where employers are recognizing their interest in reducing the infection rate among their employees. Many projects aim at making condoms readily available and on providing instruction in condom use. USAID is a major provider of condoms in Africa. Pilot projects have had success in reducing mother-to-child transmission by administering the anti-HIV drug AZT or Nevirapine, during birth and early childhood.

Church groups and humanitarian organizations have helped Africa deal with the consequences of AIDS by setting up programs to provide care and education to orphans. The Farm Orphan Support Trust in Zimbabwe tries to keep sibling orphans together and in a family living situation; the Salvation Army sponsors a pilot, community-based, orphan support program in Zambia, providing education and health care to vulnerable children. (*Report on the Presidential Mission on Children Orphaned by AIDS.*) A United Nations study has found that community-based organizations, sometimes with the support of NGOs,

have emerged to supply additional labor, home care for the sick, house repair, and other services to AIDS-afflicted families. (UNAIDS, A Review of Household and Community Responses to the HIV/AIDS Epidemic in Rural Areas of Sub-Saharan Africa, 1999.)

Public-private partnerships have also become an important vehicle for responding to the African AIDS pandemic. The Bill and Melinda Gates Foundation has been a major supporter of vaccine research and a variety of AIDS programs undertaken in cooperation with African governments and donors. The Rockefeller Foundation, working with UNAIDS and others, has sponsored programs to improve AIDS care in Africa, and both Bristol-Myers Squibb and Merck and Company, together with the Gates Foundation and the Harvard AIDS Institute, have undertaken programs with the Botswana government aimed at improving the country's health infrastructure and providing AIDS treatment to all who need it.

On July 23, 2000, leaders at the G-8 world economic summit in Okinawa pledged to reduce the number of young people infected by the HIV virus by 25%. The World Health Organization estimated that this pledge, and G-8 pledges to attack malaria and tuberculosis as well, would cost at least \$5 billion per year for 5 years. The World Bank launched its Multi-Country HIV/AIDS Program (MAP) for Africa in September 2000.

The Global Fund to Fight AIDS, Tuberculosis, and Malaria was created in January 2002 and plans to disburse \$1.5 billion to fight the three diseases worldwide in 2003 and 2004. The Fund commits about 60% of its grant funds to Africa, and about 60% of its grants worldwide go toward fighting AIDS. For further information, see CRS Report RL31712, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background and Current Issues*.

Nonetheless, UNAIDS maintains that a significant funding gap remains. In September 2003, the organization issued a report entitled *Accelerating Action Against AIDS in Africa*, which estimated that \$8 billion is required to fight the African AIDS epidemic in 2004, whereas \$6 billion is likely to be provided from all sources, including donors, the Global Fund, African governments, and African households. UNAIDS expects the resource gap to widen further in 2005.

Further information on the response to AIDS in Africa may be found at the following web sites:

CDC: [http://www.cdc.gov/nchstp/od/nchstp.html] Global Fund to Fight AIDS, Tuberculosis, and Malaria: [http://www.theglobalfund.org/en/] International AIDS Vaccine Initiative: [http://www.iavi.org] International Association of Physicians in AIDS Care: [http://www.iapac.org/] Kaiser Daily HIV/AIDS Report: [http://report.kff.org/aidshiv/] UNAIDS: [http://www.unaids.org/] USAID: [http://www.usaid.gov/], click on "Health." World Bank: [http://www.worldbank.org/], click on "Topics."

#### **Effectiveness of the Response**

The response to AIDS in Africa has had some successes, most notably in Uganda, where the rate of infection among pregnant women in urban areas fell from 29.5% in 1992

to 5% in 2001 (UNAIDS, *AIDS Epidemic Update*, *December 2002*). HIV prevalence among young urban women in Zambia has also reportedly fallen, and UNAIDS indicates that urban sexual behavior patterns among young people in cities in other countries may be changing in ways that combat the spread of HIV. However, increases in infection rates continue in cities in several other countries. South Africa has recorded a drop in infections among pregnant women under 20, and Senegal is credited with preventing an AIDS epidemic through an active, government-sponsored prevention program. Despite some success stories, however, available evidence indicates that the epidemic is deepening in most of Africa.

Experts point out that there are a number of barriers to a more effective AIDS response in Africa, such as cultural norms that make it difficult for many government, religious, and community leaders to acknowledge or discuss sexual matters, including sex practices, prostitution, and the use of condoms. However, experts continue to advocate AIDS awareness and AIDS amelioration as essential components of the response to the epidemic. Indeed, there is strong support for an intensification of awareness and amelioration efforts, as well as adaptations to make such efforts more effective. With respect to amelioration, UNAIDS has recommended that donors find ways to strengthen those indigenous support institutions that are already helping AIDS victims and their families. (*A Review of Household and Community Responses*, 1999.) There is also support for a stronger focus on treatment of non-HIV sexually-transmitted infections, which studies show can dramatically lower the rate of HIV transmission.

The lives of infected people could be significantly prolonged and improved, some maintain, if more were done to identify and treat the opportunistic infections, particularly tuberculosis, that typically accompany AIDS. Millions of Africans suffer dual infections of HIV and TB, and the combined infection dramatically shortens life. Tuberculosis can be cured by treatment with a combination of medications over several months, even in HIVinfected patients. However, according to the World Health Organization, Africans often delay seeking treatment for TB or do not complete the course of medication (Global Tuberculosis Control: WHO Report 1999, Key Findings), contributing to the high incidence of death among those with dual infections. Pfizer Corporation has signed an agreement with South Africa to donate the anti-fungal Diflucan (fluconazole) for treating AIDS-related opportunistic infections, including cryptococcal meningitis, a dangerous brain inflammation. On December 1, 2001, Pfizer announced that it would sign memoranda of understanding on donating fluconazole with six other African countries. UNAIDS and the World Health organization recommended on April 5, 2000, that Africans infected with HIV be treated with an antibiotic/sulfa drug combination known by the trade name Bactrim in order to prevent opportunistic infections. Studies indicate that the drug could reduce AIDS death rates at a cost of between \$8 and \$17 per year per patient.

#### **AIDS Treatment Issues**

According to the World Health Organization's Accelerating Access Initiative, 150,000 AIDS patients in Africa were receiving treatment with antiretrovirals in December 2003, up from 75,000 six months earlier.<sup>3</sup> However, the number being treated is expected to increase sharply in coming months and years as the treatment programs of PEPFAR, the Global Fund,

<sup>&</sup>lt;sup>3</sup> Press release reported in the Kaiser Daily HIV/AIDS Report, March 19, 2004.

and other public and private groups begin or expand operations. On December 1, 2003, World AIDS Day, the World Health Organization formally released its own \$5.5 billion "three by five" plan to treat 3 million AIDS patients in poor countries by 2005, with resources to come from the Global Fund and donors. On October 23, 2003, former President Bill Clinton announced that his foundation had organized a program to provide antiretroviral drug treatment for AIDS patients in Africa and the Caribbean for about \$.38 per day. (In January 2004, Clinton said that the foundation had also negotiated deals with five manufacturers of medical supplies to sharply reduce the costs of HIV diagnostic tests.) Generic pharmaceutical manufacturers in India and South Africa would make the drugs, and funding would come from private donors, some donor governments, and other sources. On December 29, nine large multinational companies announced plans to expand AIDS treatment and prevention programs in and around their African facilities. As a result of the impending increased availability of treatment, estimates of the numbers likely to be receiving treatment soon are soaring. For example, the Kenyan health minister said on February 12, 2004, that 140,000 Kenyan AIDS patients would be receiving free antiretrovirals in 2005. Uganda expects to be treating 60,000 in the near future.

Access for poor Africans to combinations of AIDS medications or "antiretrovirals" (ARVs) has been perhaps the most contentious issue surrounding the response to the African epidemic today. Administered in a treatment regimen known as HAART (highly active antiretroviral therapy) these drugs can return AIDS victims to normal life and lead to long-term survival rather than early death. Such treatment has proven highly effective in developed countries, including the United States, where AIDS, which had been the eighth leading cause of death in 1996, no longer ranked among the 15 leading causes by 1998. (U.S. Department of Health and Human Services Press Release, October 5, 1999.)

The high cost of HAART treatments has been the principal obstacle to offering the therapy on a large scale in Africa, where most victims are poor and lack health insurance. The cost of administering HAART was once estimated at between \$10,000 and \$15,000 per person per year. On May 11, 2000, five major pharmaceutical companies announced that they were willing to negotiate sharp reductions in the price of AIDS drugs sold in Africa. UNAIDS launched a program in cooperation with the pharmaceutical companies to boost treatment access and, in June 2001, reported that 10 African countries had reached agreement with manufacturers. The agreements significantly reduced prices in exchange for health infrastructure improvements to assure that ARVs are administered safely. Patented AIDS medications are now reportedly becoming available in several African countries, at prices ranging from a few hundred dollars to just over \$1000 per patient per year, for a three-drug treatment comparable to that available in developed countries. On April 28, 2003, GlaxoSmith-Kline, the largest manufacturer of AIDS pharmaceuticals, announced further price reductions for poor countries, including all of sub-Saharan Africa.

Whether African countries are ready to "absorb" dramatically increased funding for treatment has been another issue. AIDS activists believe that millions of Africans could quickly be given access to AIDS drugs. Others maintain that African supply channels cannot make the drugs consistently available to millions of patients and that regular monitoring of patients by medical personnel is not possible in much of the continent. Monitoring is necessary, they maintain, to deal with side effects and to adjust medications if drug resistance emerges. Many fear that if the drugs are taken irregularly, resistant HIV strains will emerge that could cause untreatable infections worldwide; although a September 2003 report

indicated that African patients follow their AIDS therapy regimens more consistently than American patients.<sup>4</sup> In February 2002 Senate testimony, Dr. E. Anne Peterson, Assistant Administrator for Global Health at USAID stated that USAID would launch four treatment sites in Africa to provide "critically needed answers" to the challenges of providing antiretroviral therapy.

Botswana's President Mogae told a November 12, 2003, meeting, convened in Washington by the Center for Strategic and International Studies, that the widely-praised treatment program in his country is being hampered by a "brain drain" of health personnel. Physicians, nurses, technicians, and other are often hired away by foreign governments, international organizations, and non-governmental organizations. Moreover, the program is reportedly being affected by the stigma associated with AIDS, which inhibits Botswanans from being tested for HIV — a prerequisite to treatment. Fewer than 8% of Botswanans have reportedly been tested. ("Reluctance to Face Tests Slows Botswana AIDS Fight," *Boston Globe*, November 8, 2003.)

AIDS activists have urged that African governments issue "compulsory licenses" to allow the manufacture or importation of generic copies of patented AIDS medications. In November 2001, a ministerial-level meeting of the World Trade Organization(WTO) in Doha, Qatar, approved a declaration stating that the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS agreement) should be implemented in a manner supportive of promoting access to medicines for all. The declaration affirmed the right of countries to issue compulsory licenses and gave the least developed countries until 2016 to implement TRIPS. The question of whether countries manufacturing generic copies of patented drugs, such as India or Thailand, should be permitted to export to poor countries was left for further negotiation through a committee known as the Council for TRIPS.

Although the Doha declaration drew broad praise, some AIDS activists criticized it for not permitting imports of generics, cheap copies of patented medications. Some in the pharmaceutical industry, on the other hand, expressed concern that the declaration was too permissive and might reduce profits that, they argued, were used to fund research. Others, however, maintained that the declaration would have little practical impact, because in their view, poverty rather than patents is the principal obstacle to drug access in Africa. (See Amir Attaran and Lee Gillespie-White, "Do Patents for Anti-retroviral Drugs Constrain Access to AIDS Treatment in Africa?" *Journal of the American Medical Association*, October 17, 2001.) On August 30, 2003, the WTO reached agreement on a plan to allow poor countries to import generic copies of essential medications, but the debate over access to antiretrovirals in Africa seems likely to continue. For more information, see CRS Report RS21609, *The WTO*, *Intellectual Property Rights, and the Access to Medicines Controversy*.

On November 6, 2003, then Prime Minister Jean Chretien of Canada proposed legislation to allow generic drug manufacturers in Canada to supply inexpensive copies of patented medicines to poor countries under "compulsory licenses." The bill has been re-introduced in 2004.

<sup>&</sup>lt;sup>4</sup> "Africans Outdo Americans in Following AIDS Therapy," New York Times, September 3, 2003.

## **U.S. Policy**

U.S. concern over AIDS in Africa began to mount during the 1980s, as the severity of the epidemic became apparent. In 1987, in acting on the FY1988 foreign operations appropriations, Congress earmarked funds for fighting AIDS worldwide, and House appropriators noted that in Africa, AIDS had the potential for "undermining all development efforts" to date (H.Rept. 100-283). In subsequent years, Congress supported AIDS spending at or above levels requested by the executive branch, either through earmarks or report language. Nevertheless, a widely discussed July 2000 *Washington Post* article called into question the adequacy and timeliness of the early U.S. response to the HIV/AIDS threat in Africa. (Barton Gellman, "The Global Response to AIDS in Africa: World Shunned Signs of Coming Plague." *Washington Post*, July 5, 2000).

As the severity of the epidemic continued to deepen, many of those concerned for Africa's future, both inside and outside government, came to feel that more should be done. On July 19, 1999, then Vice President Al Gore proposed \$100 million in additional spending for a global LIFE (Leadership and Investment in Fighting an Epidemic) AIDS initiative to begin in FY2000, with a heavy focus on Africa. Funds approved during the FY2000 appropriations process supported most of this initiative. On June 27, 2000, the Peace Corps announced that all volunteers serving in Africa would be trained as AIDS educators.

USAID reported in 2001 that it had been the global leader in the international response to AIDS since 1986, not only by supporting multilateral efforts but also by directly sponsoring regional and bilateral programs aimed at combating the disease. (USAID, *Leading the Way: USAID Responds to HIV/AIDS*, September 2001). The Agency had sponsored AIDS education programs; trained AIDS educators, counselors, and clinicians; supported condom distribution; and sponsored AIDS research. USAID claimed several successes in Africa, such as helping to reduce HIV prevalence among young Ugandans and to prevent an outbreak of the epidemic in Senegal; reducing the frequency of sexually transmitted infections in several African countries; sharply increasing condom availability in Kenya and elsewhere; assisting children orphaned by AIDS; and sponsoring the development of useful new technologies, including the female condom. USAID reported that it spent a total of \$51 million on fighting AIDS in Africa in FY1998 and \$63 million in FY1999 (*Leading the Way*, 121). In addition, some spending by the Department of Health and Human Services was going toward HIV surveillance in Africa and other Africa AIDSrelated efforts.

#### **Bush Administration**

The President's Emergency Plan for AIDS Relief (PEPFAR) is expected to result in major spending increases for HIV/AIDS prevention, care, and treatment in 12 focus countries in Africa: Botswana, Cote d'Ivoire, Ethiopia, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia. The objectives of PEPFAR, which is to include 15 countries altogether, are to prevent 7 million new infections, provide antiretroviral drugs for 2 million infected people, and provide care for 10 million infected people, including orphans. The new funds are coming through the Global AIDS Initiative (GAI), headquartered at the Department of State. The GAI is headed by the United States Global AIDS Coordinator, Randall Tobias, who coordinates not only the GAI programs in the focus countries, but also the HIV/AIDS programs of USAID and other agencies in both focus and non-focus countries. President Bush announced the creation of PEPFAR in his January 2003 State of the Union address, pledging \$10 billion in "new money" worldwide, that is spending in addition to current levels, for fiscal years 2004 through 2008. Funding for the GAI was part of the FY2004 Omnibus Consolidated Appropriations (P.L. 108-199), signed into law on January 23, 2004.

On February 23, 2004, the Department of State issued a report [http://www.state.gov/s/ gac/rl/or/c11652.htm] providing details on the PEPFAR initiative. At the same time, the Administration announced plans to release \$350 million in PEPFAR funds initially for treatment programs conducted by the Elizabeth Glaser Pediatric AIDS Foundation, Harvard's School of Public Health, Colombia's Mailman School of Public Health, and Catholic Relief Services. Budget documents released in early February indicated that the Administration was requesting about \$1 billion for the African PEPFAR focus countries through the GAI in FY2005. In FY2004, PEPFAR spending in Africa is expected to range between \$426 million and \$528 million.

In May 2001, President Bush had made the "founding pledge" of \$200 million to the Global Fund, and on June 19, 2002, he announced a \$500 million International Mother and Child HIV Prevention Initiative (IMCPI) to support programs to prevent mother- to-child transmission of the virus. Eight African countries were named as beneficiaries. President Bush made AIDS a special focus of his 5-day trip to Africa in July 2003. On July 10, speaking in Botswana, the President said "This is the deadliest enemy Africa has ever faced, and you will not face this epidemic alone." On July 8, in Senegal, the President told Africans "we will join with you in turning the tide against AIDS in Africa." The President also spoke on the epidemic in South Africa on July 9. On September 22, 2003 Secretary of State Powell told a U.N. General Assembly special session on AIDS that the epidemic was "more devastating than any terrorist attack" and that the United States would "remain at the forefront" of efforts to combat the epidemic.

Many AIDS activists and others have praised the President's initiatives, but critics maintain that PEPFAR in particular is getting off to a slow start and have urged increased appropriations. Some also see the program as too strongly unilateral and would like the United States to be acting in closer cooperation with other countries and donors, particularly the Global Fund to Fight AIDS, Tuberculosis, and Malaria. In FY2004, Congress appropriated \$547 million for the Global Fund, more than twice the Administration's \$200 million request. The Administration has requested \$200 million for the Fund again in FY2005.<sup>5</sup> Several editorials have argued that the GAI should purchase antiretroviral drugs for its treatment programs through generic manufacturers in order to assure that the maximum possible number patients can be treated. The GAI has held out generic purchases as a possibility, but is considering other approaches as well.<sup>6</sup> Some observers are also questioning whether PEPFAR will do enough to strengthen African health care institutions

<sup>&</sup>lt;sup>5</sup> For funding details, see CRS Report RS21181, *HIV/AIDS International Programs: Appropriations, FY2002-FY2005.* 

<sup>&</sup>lt;sup>6</sup> Office of the United States Global AIDS Coordinator, *The President's Emergency Plan for AIDS Relief: U.S. Five-Year Global HIV/AIDS Strategy* (Washington, February 23, 2004), p.71.

and capabilities for coping with AIDS over the long term; or whether the funds will flow primarily to U.S.-based organizations.

Table 1 reports available information on recent U.S. spending levels on AIDS programs in Africa. Where information is not available, "NA" has been entered into the table. Under the FY2005 request, GAI assistance to the 12 focus countries in sub-Saharan Africa will total just over \$1 billion, or 72% or the total requested for the GAI. Allocations for FY2004 are still uncertain, but according to estimates, GAI assistance to the 12 focus countries in Africa will range between \$426 million and \$568 million in FY2004. The mid-point of these two numbers (\$497 million) is being used in the table below until further information is available. Prior to the launching of PEPFAR, USAID and the Global AIDS Program (GAP) of the Centers for Disease Control (CDC) in the Department of Health and Human Services were the principal channels for HIV/AIDS assistance to Africa. In addition, the Defense Department (DOD) has undertaken an HIV/AIDS education program with African armed forces. Funds from the Foreign Military Financing (FMF) program are also used to support this initiative. Meanwhile, a Department of Labor (DOL) program that supports AIDS education in the African workplace. (For more information, see CRS Report RS21181, HIV/AIDS International Programs: Appropriations, FY2002-FY2004.) Additional U.S. funds reach Africa indirectly through the AIDS programs of the United Nations, including the World Bank, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

	FY2000	FY2001	FY2002	FY2003	FY2004 Est.	FY2005 Request
USAID	109	144	183	320	231	231
CDC (GAP)	30	77	84	107	NA	NA
GAI (State)	-	-	-	-	497e	1,041
DOD	0	5	14	7	4.2	0
FMF	0	0	0	2	1.5	2.0
DOL	0	3	6	5	NA	0
Total	139	229	287	441		

 Table 1. U.S. Bilateral Spending on Fighting AIDS in Africa

 (\$ millions)

Nonetheless, the scale of the response to the pandemic in Africa by the United States and others remains a subject of intense debate. At the September 21, 2003 opening of an international conference on AIDS in Africa, meeting in Nairobi, the U.N. Special Envoy for HIV/AIDS in Africa, Stephen Lewis, said he was "enraged by the behavior of the rich powers" with respect to the epidemic. The singer Bono said he had a "good old row" with President Bush in a September 16 meeting on the level of U.S. funding for fighting the international AIDS epidemic. As Congress considered FY2004 appropriations, a number of editorials called for increased AIDS spending in Africa and elsewhere. (See, for example, summaries by the Kaiser Family Foundation Daily HIV/AIDS Report, September 25, 2003, [http://report.kff.org/aidshiv/]). Nonetheless, as noted above, others argued that Africa's ability to absorb increased AIDS funding is limited, that health infrastructure will have to be expanded before new funds can be spent effectively.

#### Legislative Action, 2000-2002

In August 2000, the Global AIDS and Tuberculosis Relief Act of 2000 (P.L. 106-264) became law. This legislation authorized funding for fiscal years 2001 and 2002 for a comprehensive, coordinated, worldwide HIV/AIDS effort under USAID. In the 107<sup>th</sup> Congress, a number of bills were introduced with international or Africa-related HIV/AIDS related provisions. A major international AIDS authorization bill, H.R. 2069, passed both the House and Senate during the 107<sup>th</sup> Congress but did not go to conference. (For information on appropriations for HIV/AIDS programs, see CRS Report RS21114, *HIV/AIDS: Appropriations for Worldwide Programs in FY2001 and FY2002.*)

#### Legislative Action in the 108<sup>th</sup> Congress

The FY2003 Omnibus Appropriations measure (H.J.Res. 2/P.L. 108-7), signed into law on February 20, 2003, funded a number of programs and initiatives that will support the struggle against AIDS in Africa. In May, Congress approved and President Bush signed into law H.R. 1298/P.L. 108-25, the United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003. This bill backs the President's Emergency Plan for AIDS Relief by authorizing \$3 billion per year for FY2004 through FY2008 (a total of \$15 billion) and creating the office of the Global AIDS Coordinator at the Department of State. (For details, see Legislation). The amounts to be appropriated for international AIDS programs, however, remain to be seen. The Senate-passed version of the budget resolution currently before Congress (S.Con.Res. 95) would permit higher spending under the international operations account for international AIDS programs. The House-passed version would permit less spending than requested by the Administration for international operations, leading to some concern that AIDS programs in Africa and worldwide might be affected. For further information on funding levels, see CRS Report RS21181, HIV/AIDS International Programs: Appropriations, FY2002-FY2004. Several bills with provisions related to the African AIDS pandemic have been introduced in the 108th Congress and referred to committee, including:

- H.R. 390 (Waters)/S. 185 (Daschle), African Famine Relief Act of 2003
- H.R. 643 (Waters), Debt Cancellation for the New Millennium Act
- H.R. 1145 (Millender McDonald) Peace Corps HIV/AIDS Training Enhancement Appropriations Act of FY2003
- H.R. 1857 (Hastings) Humanitarian Assistance to Combat HIV/AIDS in sub-Saharan Africa and the Caribbean And National Security Act of 2003
- H.R. 2470 (Waters), Medicines to Eliminate Diseases in Developing States Act or the "MEDDS Act"
- S. 250 (Durbin), Global Coordination of HIV/AIDS Response Act (Global CARE Act)
- S. 859 (Corzine), Microbicide Development Act of 2003
- S. 1067 (Alexander), AIDS Corps Act of 2003

#### LEGISLATION

#### P.L. 108-25, H.R. 1298

United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003. Authorizes \$3 billion for each of the fiscal years 2004 through 2008 for international AIDS, tuberculosis, and malaria activities. Requires the President to establish a comprehensive, integrated, 5-year strategy to combat global HIV/AIDS; establishes at the Department of State a Coordinator of United States Government Activities to Combat HIV/AIDS globally; establishes a central account to be administered by the Coordinator for all HIV/AIDS funds, except for contributions to the Global Fund, appropriated pursuant to the Act; states sense of Congress that 55% of funding should be spent for treatment (to become mandatory for FY2006-FY2008) and 20% for prevention, of which 33% should promote abstinence until marriage programs; mandates that 33% of prevention funds should promote abstinence until marriage in FY2006-FY2008; authorizes up to \$1 billion of the \$3 billion authorized for FY2004 for the Global Fund to Fight AIDS, Tuberculosis, and Malaria for FY2004 and such funds as shall be necessary through 2008, but U.S. contribution to the Fund not to exceed 33% of total funds contributed by other sources unless the President determines an international health emergency threatens national security; establishes a U.S. technical review panel to provide guidance to U.S. representatives to the Global Fund; requires the Comptroller General to monitor and evaluate projects supported by the Global Fund; amends the Foreign Assistance Act of 1961 to authorize the President to furnish assistance to prevent, treat, and monitor HIV/AIDS in countries of sub-Saharan Africa and other countries; authorizes a pilot program to place health care professionals in overseas areas affected by AIDS, tuberculosis, and malaria; authorizes the procurement of HIV/AIDS pharmaceuticals; authorizes such sums as may be necessary for a pilot program of assistance for children and families affected by HIV/AIDS, and for a pilot program on family survival partnerships; calls for 10% of funding to be used to help children whose parents have died of AIDS. H.R. 1298+ was introduced in the House on March 17, 2003; referred to the Committee on International Relations; marked up and reported (H.Rept. 108-60) April 2. Passed House (375-41), amended, May 1, 2003. (For text of amendments, see H.Rept. 108-80.) Passed Senate, amended, by voice vote, May 16, 2003. House agreed to Senate-passed version by voice vote, May 21. Signed into law May 27, 2003.