Order Code IB10050

Issue Brief for Congress
Received through the CRS Web

AIDS in Africa

Updated December 2, 2002

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SUMMARY

Sub-Saharan Africa has been far more severely affected by AIDS than any other part of the world. The United Nations reports that 29.4 million adults and children are infected with the HIV virus in the region, which has about 10% of the world's population but more than 70% of the worldwide total of infected people. The overall rate of infection among adults in sub-Saharan Africa is 8.8%; compared with 1.2% worldwide. Twelve countries, mostly in east and southern Africa, have HIV infection rates of more than 10%, and the rate has reached 38.8% in Botswana. As of 2001, an estimated 21.5 million Africans had died of AIDS, including 2.2 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, HIV is spread primarily by heterosexual contact, and 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 ameliorate the damage done by AIDS to families, societies, and economies. The adequacy of this response is the subject of much debate. Spending from all sources on HIV/-AIDS in sub-Saharan Africa was estimated at $500 million for FY2000, while U.N. experts believe the region could effectively absorb $4.6 billion to combat the pandemic.

Treatment of AIDS sufferers with medicines that can result in long-term survival is reportedly available to fewer than 30,000 Africans. Advocates of expanded treatment argue that in view of recent drug price reductions, treatment is an affordable means of reducing AIDS damage to African economies, reinforcing prevention programs, and keeping parents alive. Skeptics argue that treatment is still too expensive to be an option for most Africans and would require donors to fund costly improvements in Africa's health infrastructure.

U.S. concern over AIDS in Africa grew during the 1980s, as the severity of the epidemic became apparent. According to the U.S. Agency for International Development, the United States has been the global leader in the international response to AIDS since 1986. Legislation enacted in the 106th and the 107th Congresses increased funding for worldwide HIV/AIDS programs, and the Administration has requested a further increase for FY2003. The United States has also pledged $500 million to the new Global Fund to Fight AIDS, Tuberculosis, and Malaria. Nonetheless, critics find the U.S. response inadequate in view of the scale of the African pandemic.

MOST RECENT DEVELOPMENTS

In its annual AIDS Epidemic Update, *released on November 26, 2002, the Joint United Nations Program on HIV/AIDS (UNAIDS) reported that 29.4 million people were living with HIV and AIDS in sub-Saharan Africa, including 3.5 million newly infected during the year. The report noted that HIV/AIDS had eroded the ability of households in southern Africa to cope with deepening food shortages by causing labor losses, the depletion of assets, and a weakening of social support networks. AIDS activists demonstrated at the White House on November 26, demanding increased funding for domestic and international AIDS programs, including the Global Fund to Fight AIDS, Tuberculosis, and Malaria. On November 22, the Global Fund announced that it had signed agreements to provide $6.5 million to Ghana, including $4.2 million for HIV/AIDS prevention and treatment. The agreements were the first to be concluded by the Fund. Secretary of State Colin Powell, speaking on November 13 at a dinner honoring U.N. Secretary General Kofi Annan, said that the HIV/AIDS pandemic is "the biggest problem we have on the face of the earth today." (For further information, see CRS Report RS21181,* HIV/AIDS International Programs: FY2002 Spending and Outlook for FY2003*, and CRS Report RS21340,* Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background and Current Issues.*)*

BACKGROUND AND ANALYSIS

Sub-Saharan Africa has been far more severely affected by AIDS than any other part of the world. In November 2002, UNAIDS (the Joint United Nations Program on HIV/AIDS) reported that in 2002, 29.4 million people were living with HIV and AIDS in sub-Saharan Africa, up from 28.5 million in 2001. Africa, where an estimated 3.5 million people were newly infected in 2002, has about 10% of the world's population but more than 70% of the worldwide total of infected people. The infection rate among adults is about 8.8% in Africa, compared with 1.2% worldwide. Through 2001, an estimated 21.5 million Africans had lost their lives to AIDS, including an estimated 2.2 million who died in that year(UNAIDS, *Report on the Global HIV/AIDS Epidemic, 2002*). UNAIDS estimates that by 2020, an additional 55 million Africans will loose their lives to the epidemic. In Botswana, the worst-affected country, 55.6% of urban pregnant women aged 25-29 and attending ante-natal clinics were HIV positive in 2001. Rising infection rates continue to be seen in Zimbabwe, Namibia, and other countries as well. 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.

Reports by scientists at the XIV International AIDS Conference, held in Barcelona in July 2002, noted that the HIV virus probably could not be eliminated by drug treatment, due to its newly discovered ability to "hide" in cells of the immune system for decades. Thus, drug therapy, once begun, would have to be provided throughout a patient's lifetime. Some progress was reported in vaccine research, but most reports suggested that an effective vaccine was still years in the future. The limited availability of AIDS treatment in Africa was another focus of the meeting, but success was reported in small-scale treatment programs. Some successes in prevention were also noted, and many speakers urged sharply increased spending both for treatment and prevention.

Characteristics of the African Epidemic

- HIV, the human immunodeficiency virus that causes AIDS, is spread in Africa primarily by heterosexual contact.

- 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).*

- 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 has 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. The number of orphans due to all causes is expected to total 42 million in 2010, including 6.7 million in Nigeria, 5 million in Ethiopia, and 2.3 million in South Africa. (UNAIDS, UNICEF, and U.S. Agency for International Development, *Children on the Brink, 2002, a Joint Report on Orphan Estimates and Program Strategies*, p. 28.)

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. AIDS treatment is 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." (*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.

Many observers believe that the spread of AIDS in Africa could have been slowed if

Adult HIV Infection Rates (%), end of 2001

Botswana	38.8
Swaziland	33.4
Zimbabwe	33.7
Lesotho	31.0
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.

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. 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 17, 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, possibly by December. 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.

On July 5, 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. However, continuing South African government objections to a grant awarded by the Global Fund to Fight AIDS, Tuberculosis, and Malaria to KwaZulu-Natal Province, where infection rates are extremely high, has caused some to question whether official attitudes on the AIDS epidemic have in fact changed.

In the rest of Africa, meanwhile, 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 the presidents of Botswana, Nigeria, and several other countries are today in the forefront of the AIDS struggle as well. Several regional AIDS initiatives have been launched.

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.)

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 have been widely expected to play an important peacekeeping role in the Democratic Republic of the Congo (DRC, formerly Zaire) and perhaps other countries in coming months and years, but

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 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, although some treatment is now being offered at private clinics or through programs offered by a few large employers. Demands for large-scale treatment are mounting in Africa, and are drawing support from outside the continent among AIDS activists and others concerned for the region's future. (For more information on the international response to the epidemic, see CRS Report RL30883, *Africa: Scaling Up the Response to the HIV/AIDS Pandemic.*)

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. The U.S. Agency for International Development (USAID) is currently supporting VCT centers in 10 African countries. 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. (See "A Small Nation's Big Effort Against AIDS," *Washington Post*, December 2, 2002.)

USAID estimates that in FY2000, all donors and lending agencies, together with African governments, spent approximately $500 million in combating AIDS, but donors have committed to scaling up the response. 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, and a Bank official said in October 2002 that to date, $1 billion had been committed. Since July 2002, such funding is being provided exclusively as grants. The MAP, designed to be both flexible and rapidly disbursing, according to the Bank, helps fund AIDS prevention, care, and treatment programs in countries that have developed a strategic approach. (According to some reports, however, MAP recipients have had difficulty in disbursing funds in a timely way. Sebastian Mallaby, "An AIDS Policy that Makes Sense," *Washington Post*, December 2, 2002.) On December 9, 2001, Peter Piot, executive director of the Joint United Nations Program on HIV/AIDS (UNAIDS), told an international AIDS conference in Burkina Faso that assistance to fight HIV/AIDS in sub-Saharan Africa should be increased "many-fold," and that the region requires $4.6 billion per year to confront the pandemic. (For more information, see CRS Report RL30883, *Africa: Scaling Up the Response to the HIV/AIDS Pandemic*.)

The Global Fund to Fight AIDS, Tuberculosis, and Malaria was created in January 2002, and to date nearly $2.2 million has been pledged to this new organization. The first grants were announced in April, and of the $616 million to be awarded over two years worldwide, Africa is to receive 60%. However, the disbursement of funds for these grants has been delayed while monitoring and other procedures are put in place. For further information, see CRS Report RS21340, *Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background and Current Issues.*

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]
European Union: [http://europa.eu.int/comm/development/aids/]
The Global Fund to Fight AIDS, Tuberculosis, and Malaria:
[http://www.globalfundatm.org]
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).* The Uganda government sponsors an active AIDS awareness program that openly advocates the use of condoms. HIV prevalence among young urban women in Zambia has also reportedly fallen, and UNAIDS indicates that urban sexual behavior patterns may be changing in ways that combat the spread of HIV. 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.)* 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 HIV-infected 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

Access for poor Africans to combinations of AIDS medications or “antiretrovirals” (ARVs) is 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.)

Advocates of making HAART widely available in Africa argue that the therapy would keep parents alive, slowing the growth in the number of AIDS orphans; and keep workers, teachers, civil servants, and managers alive as well, thus reducing the economic impact of the epidemic. Moreover, proponents argue, treatment will strengthen prevention efforts, since the possibility of treatment will create strong incentives for participation in VCT programs. Some also see a moral obligation to try to save lives when the medications for doing so exist. Other, however, argue that as long as resources for combating AIDS are limited, the focus should continue to be on prevention, which, they maintain, is more cost effective in saving lives.

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.

Private clinics in some African cities are now offering HAART, and Uganda as well as Cote d'Ivoire are providing treatment in publicly-funded programs to several hundred patients. Nonetheless, UNAIDS estimates that only about 30,000 Africans are receiving treatment. A Nigerian program to treat 15,000 AIDS patients with generic antiretrovirals imported from India was launched in December 2001, but has encountered organizational problems and difficulties in drug distribution. (*Africa News*, April 5, 2002; *Agence France Presse*, May 21, 2002.) In Kenya, a law came into force on May 1, 2002 permitting the importation or manufacture of generic copies of more expensive patented AIDS drugs, although even these medications would likely cost more than most Kenyan AIDS patients can afford. (*BBC*, May 1, 2002.) Anglo American, the South African mining firm, announced on August 6, 2002, that it would provide antiretroviral drug therapy to employees requiring it. Other mining companies subsequently made similar announcements. The Global Fund maintains that its initial round of grants will make possible a six-fold increase in the numbers being treated in Africa over five years.

The degree to which Africa's poorly developed health infrastructure prevents the wider availability of HAART is controversial. 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. In February 2002 Senate testimony, Dr. E. Anne Peterson, Assistant Administrator for Global Health at USAID stated that USAID would be launching four treatment sites in Africa in 2002 to provide "critically needed answers" to the challenges of providing antiretroviral therapy.

AIDS activists also advocate "parallel imports" of drugs and "compulsory licensing" by African governments to lower the price of patented medications. Through parallel importing, patented pharmaceuticals could be purchased from the cheapest source, rather than from the manufacturer; while under "compulsory licensing," an African government could order a local firm to produce a drug and pay a negotiated royalty to the patent holder.

Although both parallel imports and compulsory licensing are permitted under Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS agreement) of the World Trade Organization agreement for countries facing national emergencies, U.S. officials once strongly opposed such measures on grounds that they could lead to infringements of intellectual property rights. Advocates for the pharmaceutical companies argued that parallel importing and compulsory licensing could reduce profits, and that this would hinder the ability of manufacturers to conduct research on new drugs, including drugs that might be even more effective against HIV. A third view has been that some combination of subsidization, price reduction, and local manufacturing might be found that would make the drugs much more widely available while maintaining drug company revenues through the sheer volume of African sales.

On May 10, 2000, then President Clinton issued an executive order stating that the United States would not seek to prevent sub-Saharan countries from promoting access to HIV/AIDS pharmaceuticals or medical technologies consistent with the World Trade Organization's TRIPS agreement. On February 22, 2001, an official of the U.S. Trade Representative's office said the Bush Administration was not considering any change in current "flexible policy" on this issue. On November 14, 2001, a ministerial level meeting of the World Trade Organization in Doha, Qatar, approved a declaration stating that the 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.

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 eventually open the way to such imports. Others, however, argued that the declaration would have little practical impact, since most AIDS drugs are not actually patented in many of the countries most heavily affected by the epidemic. From this perspective, 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.)

The United Nations convened a General Assembly Special Session (UNGASS) on HIV/AIDS on June 25-27, 2001 in New York. Much of the debate at the session centered on the issue of whether large-scale treatment with anti-retroviral drugs could be provided in Africa. The Special Session concluded with passage of a resolution emphasizing the need for "widespread and effective prevention," but "recognizing that care, support, and treatment can contribute to effective prevention."

U.S. Policy

A 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). Nonetheless, U.S. concern did begin 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.

USAID states that it has 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 has sponsored AIDS education programs; trained AIDS educators, counselors, and clinicians; supported condom distribution; and sponsored AIDS research. USAID claims 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 reports 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 AIDS-related efforts.

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, Vice President 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.

Bush Administration

The Bush Administration has continued to support increases in HIV/AIDS spending for Africa, and the President has appointed a cabinet level task force, co-chaired by Secretary of State Colin Powell and Secretary of Health and Human Services Tommy Thompson, to

develop and coordinate HIV/AIDS policy. An interagency policy coordinating committee headquartered at the White House has been established to back up the task force. Moreover, as noted above, President Bush made the "founding pledge" the Global Fund.

Many support a larger U.S. contribution to the Global Fund, and bills currently before Congress would provide considerably more than has been pledged. (See below.) Others argue, however, that the Administration has taken significant first steps in what will likely be a major long-term commitment. At the same time, concern has been expressed about the Administration's focus on the Global Fund, as some observers worry that the Fund may be diverting attention and support from the bilateral programs of USAID and the CDC. Many regard these programs as more effective than those of other organizations and agencies in coping with the African pandemic. In response, others argue that by supporting the Fund, the United States sets an example that helps to "leverage" contributions from other donors, thus attracting new resources to the fight against AIDS.

Table 1. U.S. Bilateral Spending on Fighting AIDS in Africa
($ millions)

	FY2000	**FY2001**	**FY2002** estimate	**FY2003** request
USAID	109	144	183	250.4
CDC	34	86	89	89 est.
DOD	0	5	14	0
FMF	0	0	0	2
DOL	0	3	6	0
Total	**143**	**238**	**292**	**341.4** est

Table 1 indicates recent U.S. spending levels on AIDS programs in Africa. USAID and the Centers for Disease Control (CDC) of the Department of Health and Human Services are the principal channels for assistance. In addition, the Defense Department (DOD) has undertaken an HIV/AIDS education program with African armed forces. (See CRS Report RL30761, *HIV-1/AIDS and Military Manpower Policy*. The amount reported in Table 1 for this program in FY2002 is the appropriated amount.) Meanwhile the Department of Labor (DOL) has launched a program that supports AIDS education in the African workplace.

USAID is targeting three heavily affected African countries – Kenya, Uganda, and Zambia – for a rapid scale up in HIV/AIDS activities intended to show measurable results in one to two years. Ten African countries have been identified for "intensive focus" to reduce prevalence rates as well as mother-to-child transmission and to increase support services for people living with or affected by AIDS within 3 to 5 years. USAID will maintain basic programs, including technical assistance, training, and provision of

commodities in eight other African countries. In July 2002, USAID announced that it had launched pilot antiretroviral treatment projects in Ghana, Kenya, and Rwanda. 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.

The Bush Administration's proposed FY2003 budget seeks $500 million in Development Assistance for HIV/AIDS programs worldwide, and of this amount, $250.4 million would be spent in Africa. In addition, the Administration is requesting $2 million in Foreign Military Financing to complement the Defense Department's AIDS prevention education program for African armed forces. However, funds have not been requested for the Defense Department program itself. Africa-specific funding levels for other programs have not yet been determined, but substantial increases seem unlikely. For CDC HIV/AIDS activities worldwide, the Administration is requesting $143.8 million, the same level as appropriated for FY2002. This suggests that CDC spending in Africa will reflect the FY2002 level of $89 million. The $200 million FY2003 request for the Global Fund is also the same as the FY2002 level. No funds have been requested for the Department of Labor's AIDS in the Workplace program. For more information, see CRS Report RS21181, *HIV/AIDS International Programs: FY2002 Spending and FY2003 Outlook.*

On June 19, 2002, President Bush announced a 3-year, $500 million initiative to prevent mother to child transmission of HIV worldwide. On September 3, the President submitted a budget amendment, requesting $200 million for this initiative in FY2003.

Legislative Action

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, not less than 65% to be available through non-governmental organizations, including religious-affiliated organizations, not less than 20% to be available for a multi-donor strategy to address the support and education of orphans in sub-Saharan Africa, and not less than 8.3% for the prevention of mother to child transmission. In the 107th Congress, a number of bills have been introduced with international or Africa-related HIV/AIDS related provisions.

H.R. 684 (Millender-McDonald), to authorize assistance for mother-to-child HIV/AIDS transmission prevention efforts.
H.R. 933 (Waters), Affordable HIV/AIDS Medicines for Poor Countries Act.
H.R. 1185 (Lee), Global Access to HIV/AIDS Medicines Act of 2001.
H.R. 1269 (Crowley), Global Health Act of 2001.
H.R. 1567 (Lee), to encourage the provision of multilateral debt cancellation for countries eligible to be considered for assistance under the Heavily Indebted Poor Countries (HIPC) Initiative or heavily affected by HIV/AIDS, and for other purposes.
H.R. 1642 (Waters), Debt Cancellation for the New Millennium Act.
H.R. 1690 (Waters), Export-Import Bank HIV/AIDS Medicine Access Promotion Act.
H.R. 2104 (Eddie Bernice Johnson), to amend the Foreign Assistance Act of 1961 to authorize the provision of education and related services to law enforcement and military personnel of foreign countries to prevent and control HIV/AIDS and tuberculosis.
H.R. 2209 (Bereuter), World Bank AIDS Trust Fund Amendments Act of 2001.

H.R. 2839 (Millender-McDonald), Peace Corps HIV/AIDS Training Enhancement Appropriations Act for Fiscal Year 2002.
H.R. 3975 (Leach), To provide for the donation of IMF Special Drawing Rights to the Global Fund, and for negotiations with other countries to induce them to do the same.
H.R. 4524 (Smith of New Jersey), Debt Relief Enhancement Act of 2002.
S. 463 (Feinstein), Global Access to AIDS Treatment Act of 2001.
S. 895 (Kerry), Vaccines for the New Millennium Act of 2001.
S. 1032 (Frist), International Infectious Diseases Control Act of 2001.
S. 1120 (Boxer), Global AIDS Research and Relief Act of 2001.
S. 1230 (Frist/Clinton), Global Leadership in Developing the Expanded Response Act, or the "GLIDER Act."
S. 1752 (Corzine), Microbicide Development Act of 2001.
S. 1936 (Durbin), Global Coordination of HIV/AIDS Response Act.
S. 2210 (Biden), Debt Relief Enhancement Act of 2002.

Bills that have been reported out of committee or received floor action are detailed below, under **Legislation.** For information on appropriations for HIV/AIDS programs in FY2002, see CRS Report RS21114, *HIV/AIDS: Appropriations for Worldwide Programs in FY2001 and FY2002*.

LEGISLATION

P.L. 107-228, H.R. 1646

Department of State Authorization. Authorizes $1 million for HIV/AIDS scholarships for New Century Scholars in Fulbright Academic exchange program; states the sense of Congress that U.S. officials should urge the United Nations to adopt an HIV/AIDS mitigation strategy as a component of U.N. peacekeeping operations. Passed the House, May 16, 2001. Received in the Senate and referred to the Committee on Foreign Relations, May 17, 2001. Discharged from the committee, and Senate version passed in lieu by unanimous consent, May 1, 2002. Conference report (H.Rept. 107-671) filed September 23, 2002. Conference report passed House September 25; passed Senate September 26. Signed into law (P.L. 106-228) September 30, 2002.

P.L. 107-248, H.R. 5010

Department of Defense Appropriations. Conference version provides $7 million for the Department of Defense AIDS education program with African militaries. Conference report (H.Rept. 107-632) passed House October 10, 2002; passed Senate October 16. Signed into law (P.L. 107-248) October 23, 2002.

H.R. 2069

Global Access to HIV/AIDS Prevention, Awareness, Education, and Treatment Act of 2001. House version states the sense of Congress that the United States should provide additional funds for multilateral programs and efforts to combat HIV/AIDS, including programs that make available pharmaceuticals and diagnostics for HIV/AIDS therapy in sub-Saharan Africa; and that programs to help AIDS orphans as well as micro-enterprise programs for HIV/AIDS affected families should be expanded; amends the Foreign

Assistance Act of 1961 (P.L. 87-195) to state that HIV/AIDS assistance should include prevention (including assistance through faith-based organizations), treatment, monitoring, and related activities; requires an annual report on USAID HIV/AIDS activities; authorizes $560 million for these activities in each of fiscal years 2002 and 2003; requires USAID to assist sub-Saharan and other developing countries to procure and distribute HIV/AIDS pharmaceuticals, including antiretrovirals, and authorizes $50 million for this purpose; states that the President shall establish an inter-agency task force to coordinate international HIV/AIDS activities; establishes a permanent Global Health Advisory Board to assist in the development and implementation of international health programs; authorizes $750 million in FY2002 for contributions to a global health fund or other multilateral efforts to prevent and treat HIV/AIDS. Introduced on June 6, 2001; referred to the Committee on International Relations. Amendment in the nature of a substitute marked up and approved by the House International Relations Committee, June 27, 2001. Reported (H.Rept. 107-137) July 12. Passed the House by a voice vote under a suspension or the rules, December 11. Received in the Senate and referred to the Committee on Foreign Relations, December 12, 2001.

Senate-passed version replaces provisions of H.R. 2069 with those of S. 2525 (Kerry), the United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2002, and S. 2649 (Kennedy). Requires the President to establish a comprehensive, five-year strategy to combat global HIV/AIDS; requires USAID to develop a comprehensive plan to empower women to project themselves against the spread of HIV/AIDS; requires the Department of State to appoint a Coordinator of United States Government Activities to Combat HIV/AIDS; authorizes $1 billion in FY2003 and $1.2 billion in FY2004 for contributions to the Global Fund; authorizes $60 million in FY2002 and $70 million in FY2003 as contributions to the global Vaccine Fund, $12 million and $15 million respectively for contributions to the International AIDS Vaccine Initiative, and $5 million and $6 million for the Malaria Vaccine Initiative; authorizes and requests the Secretary of the Treasury to seek improvements in the Heavily Indebted Poor Countries Initiative (HIPC) to combat AIDS, tuberculosis, and malaria; authorizes $800 million in FY2003 and $900 million in FY2004 for the bilateral HIV/AIDS programs of USAID, specifying amounts for microbicide research and the procurement of pharmaceuticals; authorizes funding to combat tuberculosis and malaria; requires the President to establish pilot programs to facilitate the service of U.S. health care professionals in Africa and elsewhere, authorizing $10 million in FY2003 and $20 million in FY2004; authorizes $50 million in FY2003 and $55 million in FY2004 for a required expansion of the Department of Defense AIDS prevention activities with African armed forces; requires a report on USAID and CDC programs to provide treatment, as well as annual reports on preventing MTCT; authorizes $15 million in FY2003 and $30 million in FY2004 for a pilot program of assistance for children and families affected by AIDS; sets out principles for U.S. firms operating in countries affected by the AIDS pandemic; in Title VI (from S. 2649), provides additional authorities for the Department of Health and Human Services and the Department of Labor with respect to international AIDS activities; authorizes $400 million for CDC international activities in FY2003, $50 million for AIDS care and treatment, and $10 million for the Department of Labor. H.R. 2069 passed the Senate, as amended, by unanimous consent, July 12, 2002; message on Senate action sent to the House on July 15.

H.R. 4546/S. 2515

National Defense Authorization. Amendment to S. 2515 by Sen. Reid (for Kerry, Frist) authorizes $30 million for an expanded Department of Defense AIDS education program

with African armed forces, adopted June 26, 2002; H.R. 4546 passed the Senate (97-2), with provisions of S. 2515 substituted, June 27, 2002 (House version, passed on May 10, does not include a comparable provision); conference began September 5, 2002.

H.R. 5410/S. 2779

Foreign Operations Appropriations, FY2003. House version provides $746.5 million from the Child Survival and Health Programs Fund for international HIV/AIDS activities, as well as $40 million in other economic assistance; earmarks $250 million of the Child Survival amount for the Global Fund; states that up to $100 million from the Child Survival amount may be used for a mother and child HIV transmission prevention program, and up to $10 million for the International AIDS Vaccine Initiative. Senate version provides $700 million under Child Survival and Health Programs for global HIV/AIDS programs and $50 million in other economic assistance; of the Child Survival aid, $18 million is to be used for microbicide development, $200 million as a contribution to the Global Fund, and $12 million for the International AIDS Vaccine Initiative. Senate version reported (S.Rept. 107-219) July 24, 2002. House version reported (H.Rept 107-663) September 19, 2002.

H.R. 5263/S. 2801

Department of Agriculture Appropriations. Both versions provide $25 million of any Section 416(b) food aid to mitigate the effects of HIV/AIDS on communities overseas. Senate version reported (S.Rept. 107-223), July 25, 2002; House version reported (H.Rept. 107-623) July 26.

H.R. 5320/S. 2766

Departments of Labor, Health and Human Services, and Education Appropriations, FY2003. House version provides $143.8 million for CDC international HIV/AIDS programs and permits $100 million to be made available by the National Institute of Allergy and Infections Diseases of the National Institutes of Health as a contribution to the Global Fund Senate version similarly provides that $100 million may be made available to the Fund and $168.8 million for CDC international HIV/AIDS programs. Senate report language recommends that $10 million be provided for the Department of Labor's AIDS in the workplace initiative, but solely for the purpose of funding workplace-based AIDS education and prevention programs of the International Labor Organization. House version referred to the Committee on Appropriations, September 4, 2002. Senate version reported (S.Rept. 107-216) July 22, 2002.

S. 15 (Kerry)

United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2002. Generally similar to the Senate-passed version of H.R. 2069, but does not include the provisions found in Title II of that bill (with respect to improvements in the enhanced HIPC initiative), nor in Title VI. Also does not include provisions related to the Department of Defense AIDS prevention program in Africa. Authorizes $750 million in FY2003 and $1.2 billion in FY2004 as a contribution to the Global Fund; $12 million in FY2003 and $15 million in FY2004 for the International AIDS Vaccine Initiative; authorizes $550 million in FY2003 and $900 million in FY2004 for the bilateral HIV/AIDS programs of USAID; authorizes $20 million in FY2004 for the health care professionals program; authorizes $30 million in FY2004 for the pilot program for children and families affected by AIDS. Introduced on November 20, 2002 and referred to the Committee on Foreign Relations.