EarthTrends: Featured Topic

Title:	**Global AIDS Toll Bleak**
Author(s):	Laura Deame
Editor:	Wendy Vanasselt
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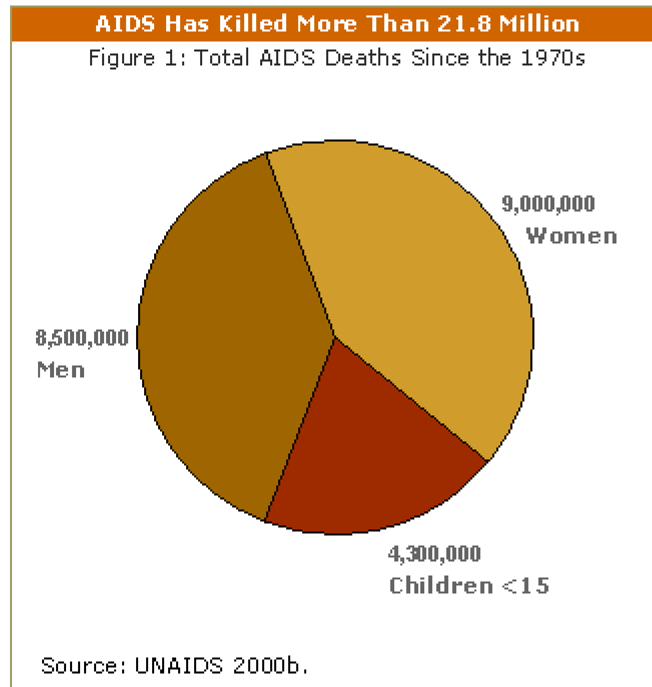
Often compared to the Black Death of the Middle Ages, the global AIDS epidemic is rapidly and powerfully attacking the fragile economic and social framework of some of the world's poorest countries.

Since the 1970s, AIDS has killed more than 21.8 million people (see Figure 1). In 2000, approximately 3 million died of AIDS, even as an additional 5.3 million became newly infected with the human immunodeficiency virus (HIV) that causes AIDS (UNAIDS 2000b:3). Today, about 34-36 million people are living with HIV or AIDS, a total that is expected to reach 47 million in 2010 (UNAIDS 2000b:3; Hunter 2000:14).



Numerous factors are contributing to the HIV/AIDS pandemic and thwarting health experts efforts to track and control the disease. In many eastern and southern Africa countries, prevalence of AIDS surpasses 30 percent; typically epidemics curb themselves at that level (Hunter 2000:11). The severity of AIDS in sub-Saharan Africa may be due in part to a more virulent HIV strain (World Bank 1999b:11; Hunter 2000:12, 34), although trade and migration patterns, the response to the epidemic, and other socioeconomic factors also contribute. In Eastern Europe and Central Asia, recent socioeconomic instability has fueled drug use and commercial sex—and, correspondingly, the spread of AIDS. In Latin America and the Caribbean, primary HIV transmission routes include male-to-male sex, heterosexual sex, and intravenous drug use (UNAIDS 2000b:5). In some regions, countries and officials may have underreported their HIV or AIDS data for political or economic reasons (Hunter 2000:5). And, in many of the less developed countries with the highest infection rates and largest populations, health budgets, foreign aid, and infrastructure to control the epidemic has been woefully insufficient.

The Impact of AIDS on Africa

The devastation caused by AIDS has been most pronounced in sub-Saharan Africa, which is home to nearly 70 percent of the adults and 80 percent of the children living with HIV in the world (Hunter 2000:8). Of the more than 20 million AIDS victims since 1970, three-fourths have died in sub-Saharan Africa (Piot et al. 2001:971). In the seven countries that form the southern cone of the continent, at least one adult in five is living with the virus (see Figure 2). South Africa has the largest number of people now living with HIV/AIDS in the world—4.2 million (UNAIDS 2000a:9).

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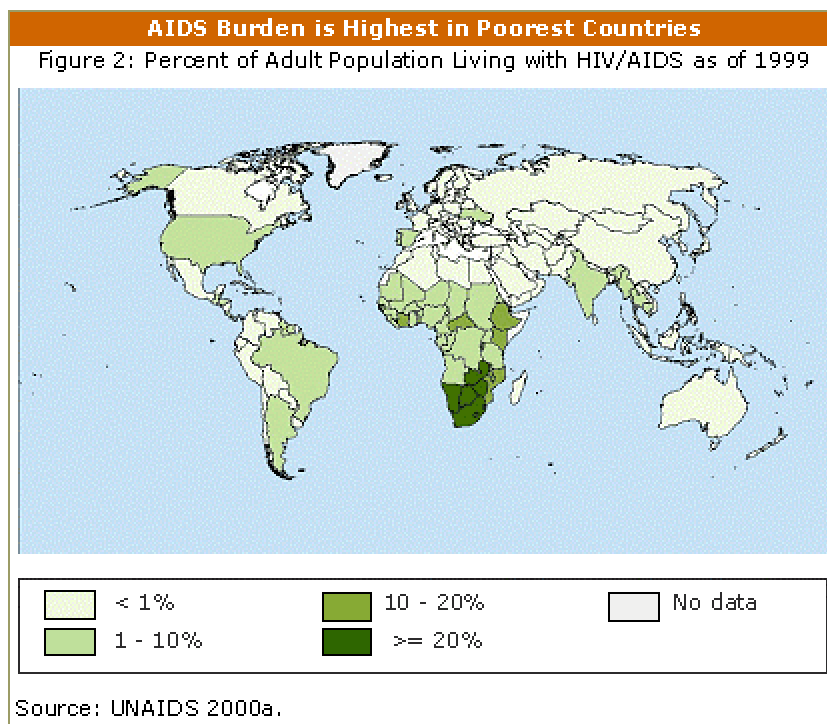

AIDS Burden is Highest in Poorest Countries

Figure 2: Percent of Adult Population Living with HIV/AIDS as of 1999

Source: UNAIDS 2000a.

Sub-Saharan Africa faces the triple challenge of bringing health care, economic support and solidarity to the growing population with HIV-related illness. Countries must reduce the annual toll of new infections by enabling individuals to protect themselves and others, while coping with the cumulative impact of a massive orphan population (see A Generation of Orphans [LINK]) and severe impacts on national development (UNAIDS 2000b:10).

Setbacks for the Poor

Poverty already exists on a vast scale in Africa. AIDS will make some poverty-stricken households poorer, while pushing others who lack insurance against financial setbacks into poverty (World Bank 1999a:36). A family member with AIDS can cause a dramatic decrease in household income, purchases, and savings. In Tanzania, Zaire, and Rwanda, studies suggest that households with AIDS spend a year's annual income meeting AIDS treatment and funeral costs (Hunter 2000:194). When people in urban areas fall ill, they often return to their villages to be cared for by their families, thus straining already scarce family resources (UNAIDS 2000a:27).

Health Care Handicapped

AIDS stretches care and health dollars thin for non-AIDS patients and jeopardizes progress toward other health-related development goals, like reduced infant mortality (World Bank1999b:15). AIDS is also associated with a rising death toll from tuberculosis, and AIDS patients crowd out non-HIV infected populations from health care systems (World Bank 1999b:15). HIV patients are not only a burden for families, they are also a burden for hospitals: in Côte d'Ivoire, Zambia, and Zimbabwe, 50-80 percent of the beds are occupied by AIDS patients (World Bank 1999b:15).

Teacher Shortages

Many African countries are losing skilled teachers as scores die of AIDS-related illnesses or become too sick to work years before retirement. In the Central African Republic, losses of teachers could deprive more than 70,000 children aged 6-11 of education by 2005 (UNAIDS 2000a:29). Other eastern and southern African countries face similar teacher shortages. In Zambia, six to eight teachers died each week in 1998; in Swaziland, AIDS killed three to four teachers a week in 1999 (Hunter 2000:60).

Agricultural Losses

AIDS has taken a devastating toll on Africa's agricultural production, on both commercial estates and small farms. A farmer who becomes ill is less able to work his crops. Households affected by HIV/AIDS may replace labor intensive cash crops like coffee with less labor intensive root crops, which mature faster but are less profitable (Barnett and

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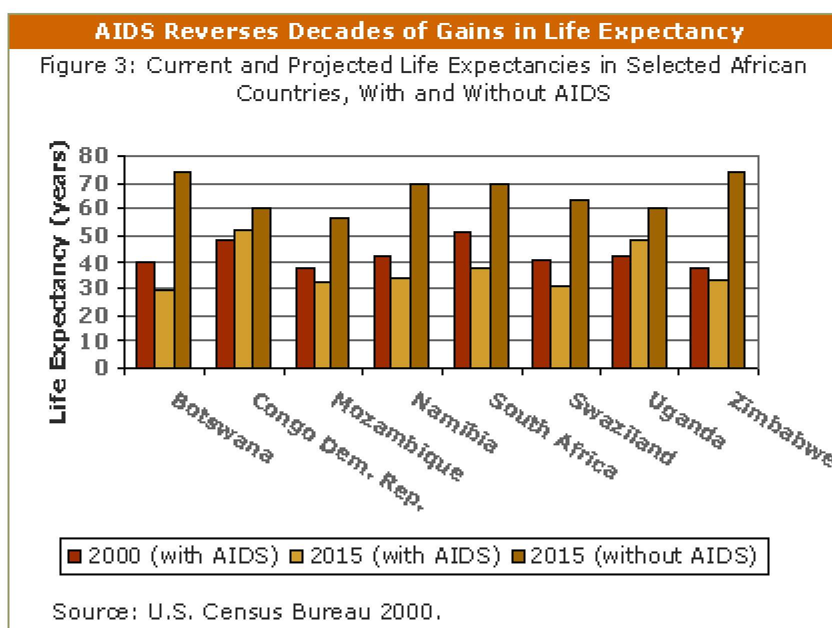
Rugalema 2001). Some may defer investments in capital improvements like irrigation systems and soil enhancements, with long-term impacts on output (World Bank 1999b:16). Livestock may be sold to generate cash for patient care, or animals may die because of poor management. When households lose livestock, they also lose manure for fertilizing crops and milk for the family (Barnett and Rugalema 2001). Agricultural knowledge and management skills are lost, too, when HIV/AIDS kills farmers (World Bank 1999b:16).

Life Expectancy
AIDS could hobble sub-Saharan Africa's economies by decreasing life expectancy from 64 to 47 years or lower (Logie 1999:806) (see Figure 3). By 2010, life expectancy in Botswana, Namibia, Mozambique, Swaziland, and Zimbabwe will be at or below 32 years old, a level not seen in decades (U.S. Census Bureau 2000). AIDS is expected to take the greatest toll among young people; worldwide, about half of all new HIV infections occur in those aged 15-24 (World Bank 1999b:13). The premature death of these millions of adults, typically at times when they have already started to form their own families and become economically productive, is expected to radically affect virtually every aspect of social and economic life (UNAIDS 2000a:22, 26).



GDP and Labor Productivity
The effect of high HIV rates on GDP in African countries and labor markets is difficult to predict. Studies have estimated that the GDP in Zimbabwe, Zambia, Kenya, and South Africa could be reduced 5-25 percent between 2000-2010 due to AIDS and its impacts on labor, health care expenditures, savings, and investment (Hunter 2000:57-58; Arndt and Lewis 2000:876). For example, by 2010, worker's deaths from AIDS could shrink Tanzania's workforce by 20 percent (Hunter 2000:59). Employers fear losses of productivity due to health-related absences and funerals, higher payments and insurance for medical care, and the need to hire and retrain workers (Piot et al. 2001:972). One company in Zambia estimated that its costs from HIV/AIDS illness and death exceeded its annual profits in 1995 (UNICEF/UNAIDS 1999:16). For the private sector, it may be more cost effective to contribute to AIDS prevention programs than to incur the expenses of absenteeism and medical costs due to HIV/AIDS. By one estimate, a comprehensive prevention program in Kenya would cost about $15 annually per employee, compared to perhaps $25-56 by 2005 in labor costs to firms if HIV incidence continues unchecked (World Bank 1999b:17).

However, it is possible that declines in population growth due to AIDS will actually have a fairly small impact on GDP growth per capita (World Bank 1999a:32-33). Where unemployment is already high, deaths of low-skilled workers from AIDS might have only a small effect on labor markets, until economies grow and the labor surplus shrinks (World

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Bank 1999a:34). Many other factors—from the severity of the epidemic, to countries' underlying growth rates, to how countries chose to finance AIDS treatment—will also determine the macroeconomic consequences of AIDS in Africa. Of course, the fundamental concern is per capita welfare, which will still clearly be reduced by AIDS—even if GDP per capita does not fall.

The Extent of AIDS in Asia, Latin America, and Eastern Europe

Cambodia, Myanmar, and Thailand have the highest prevalence rates among 15-49-year-olds in Asia—rates of 2-3 percent (Hunter 2000:12-13,44). However, AIDS is spreading dramatically in Asia, and some experts believe it will overtake sub-Saharan Africa in the number of people infected before 2010 (Flores 2001). As China and India between them account for approximately 36 percent of the world's population, even low HIV positivity rates in those countries equate to large numbers of infected people and high future AIDS rates (UNAIDS 2000a:12). In fact, the number of infected people in India rivals that of South Africa—more than 4 million (Hunter 2000:45).

Among injecting drug users and commercial sex workers in Asia, there is a full-blown AIDS crisis. HIV prevalence among injecting drug users has surpassed 40 percent in Thailand and 18 percent in Vietnam (Hunter 2000:47; World Bank 2000:3). More than half of all prostitutes in Cambodia are HIV-positive (Hunter 2000:47).

Infection rates vary greatly across Latin America. In Honduras, Guatemala, and Belize, for example, HIV prevalence among adults in the general population is 1-2 percent (UNAIDS 2000a:15). However, in some ethnic sub-groups, principally on the Caribbean coast, HIV prevalence in 15-49-year-old men and women exceeds 8 percent, and the rates in men and women in their 20s are twice as high (UNAIDS 2000a:16).

In countries of the former Soviet Union, the HIV epidemic is concentrated among intravenous drug users. Though perhaps only 300,000 Russians are currently infected with HIV, unsafe drug-injecting practices put at risk the country's estimated 2 million drug users (Piot et al. 2001:969). The increase in infection rates in the region in general appears to be given momentum by high levels of prostitution and the continuing economic crisis, which is associated with drug use, poorly funded government health programs, increased poverty, stress, and alcoholism (Piot et al. 2001:969; Zuger 2000). The CIA forecasts that by 2002, one in 70 Russians will carry HIV, an infection rate that is almost twice that in the United States (Vines 2000).

Fighting AIDS

Countries worldwide are eager to use new drugs to fight AIDS. But while the use of antiretroviral drugs is relatively common in the developed world, availability of the drugs is limited elsewhere. Drug manufacturers face mounting pressure to provide cheaper medication, worldwide, and with strict international quality standards. In fact, international pharmaceutical giants are offering knockoff versions of AIDS regimens at a cost of $500-600 per person per year, a fraction of the $10,000-15,000 Americans pay (Stolberg 2001). Realistically, however, national health budgets and individuals' incomes in the poorest countries—where the majority of the population lives on less than $1 a day—still will not allow widespread access to the drugs, even at relatively low prices.

The inability of most developing countries to access antiretrovirals underscores the broader, drastic lack of financial resources for the fight against AIDS. As the pandemic has grown, resources have not kept pace. USAID data suggests that the amount of funding per HIV-infected person may actually have declined by 50 percent between 1988 and 1997 (Attaran and Sachs 2001:59). Allocations for all health-related investments—including

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AIDS—by the central governments of many African countries in the 1990s have been less than 10 percent, and some as little as 5 percent, of the government budget (UNICEF 2001:Table 6). By one estimate, average public sector spending of the least-developed countries on health—not just AIDS—is about $7 per person (Attaran and Sachs 2001:59).

International development leaders have been slow to make the HIV/AIDS crisis a center of their funding and capacity-building agendas. Overseas development assistance for HIV/AIDS control in sub-Saharan Africa may have totaled just US$69-100 million annually in 1996-1998, amounting to just $3-5 per HIV-infected person in 1998 (Attaran and Sachs 2001:57, 59). Meanwhile, the level of support needed to control the epidemic and treat those who are HIV positive could be $3-10 billion per year (UNAIDS 2001:6; Attaran and Sachs 2001:60).

Limited developing-country financial resources puts constraints on monitoring and AIDS public education efforts as well as the provision of antiretrovirals. Another obstacle for many countries is a cultural stigma about AIDS and a reluctance to discuss sexually transmitted diseases (World Bank 1999b:26). Factor in widespread poverty and, sometimes, a lack of political will, and it becomes clear that stopping AIDS is a far more complex challenge than simply finding more money.

Deciding how to fight AIDS in the developing world raises difficult questions about priorities and equity. Experts emphasize that Africa needs more resources overall for health, not just a diversion of health funds to AIDS campaigns. Otherwise, AIDS treatment could crowd out funding for basic health and development problems like malnutrition or malaria, which still claims about as many African lives as AIDS. Other experts worry about finding the appropriate balance of funds for staunching the spread of AIDS versus treating those already infected. Another tough question is the amount of resources to devote to the provision of antiretroviral drugs.

Despite the grim news and grim economics underlying the fight against AIDS, there are signs that the epidemic can be controlled cost effectively. Many experts hope Thailand will serve as a model for other countries, particularly those where the AIDS epidemic is concentrated among drug users and sex workers. Thailand is the only developing country with a well-documented response and a national AIDS prevention program that has had a huge impact. Through a massive public information campaign launched in 1990-1991 through the media, government, and NGOs, and a program to promote universal and consistent condom use in commercial sex, Thailand has seen dramatic changes in the behavior of its most affected populations. Within a few years, fewer men were using prostitutes, condom use in commercial sex rose from 14 percent to more than 90 percent, and the number of patients with sexually transmitted diseases dropped by 90 percent (World Bank 2000:1,11).

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