bad luck, but our inability to accept the gothic dimensions of a disease that is transmitted sexually. Only when we cease to dodge this fact will effective HIV-control programs be established. Until then, it is no exaggeration to say that our polite behavior is killing us.

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The HIV–AIDS Pandemic at 25 — The Global Response

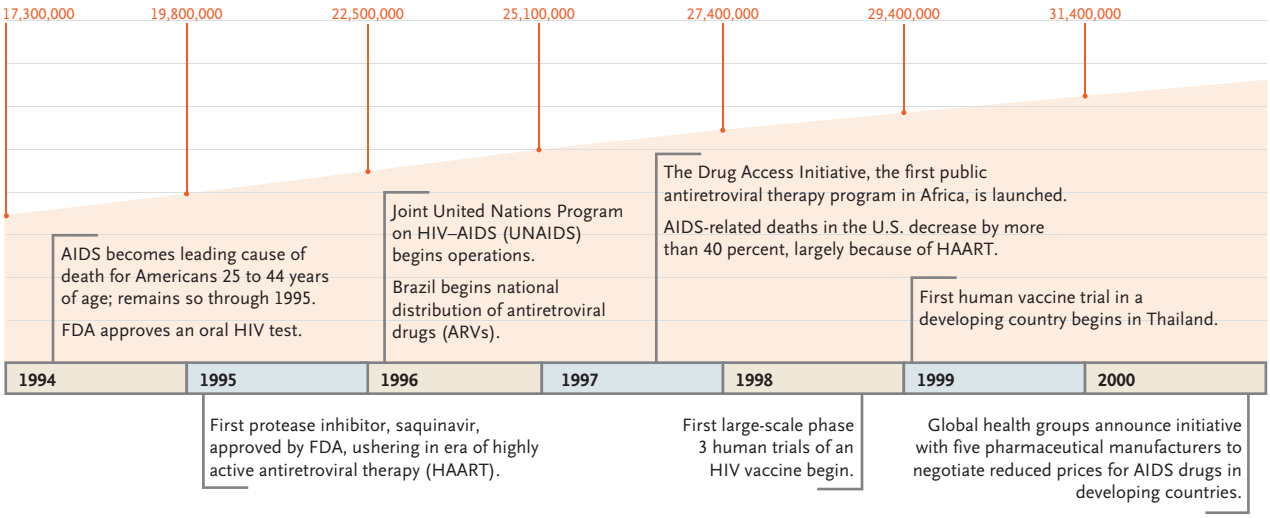
Michael H. Merson, M.D.

On June 5, 1981, when the Centers for Disease Control reported five cases of *Pneumocystis carinii* pneumonia in young homosexual men in Los Angeles,[1] few suspected it heralded a pandemic of AIDS. In 1983, a retrovirus (later named the human immunodeficiency virus, or HIV) was isolated from a patient with AIDS. In the 25 years since the first report, more than 65 million persons have been infected with HIV, and more than 25 million have died of AIDS. Worldwide, more than 40 percent of new infections among adults are in young people 15 to 24 years of age.[2]

Ninety-five percent of these infections and deaths have occurred in developing countries. Sub-Saharan Africa is home to almost 64 percent of the estimated 38.6 million persons living with HIV infection (see Figure 1). In this region, women represent 60 percent of those infected and 77 percent of newly infected persons 15 to 24 years of age.[2]

AIDS is now the leading cause of premature death among people 15 to 59 years of age. In the hardest-hit countries, the foundations of society, governance, and national security are eroding, stretching safety nets to the breaking point, with social and economic repercussions that will span generations.

This crisis demanded a unique and truly global response to meld the resources, political power, and technical capacity of wealthy countries with the needs and capacities of developing countries. Such a response would have required policymakers to address taboos concerning sexual behavior, drug use,



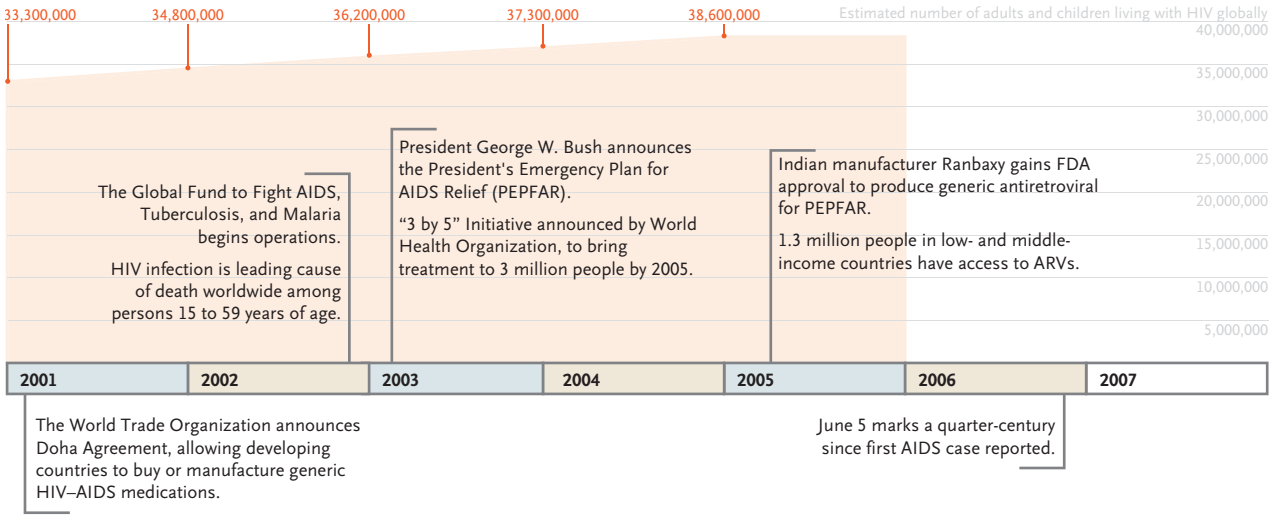
power relations between the sexes, poverty, and death. Instead, AIDS often engendered stigma, discrimination, and denial, because of its association with marginalized groups, sexual transmission, and lethality. The result was two decades of a slow, insufficient, inconsistent, and often inappropriate response.

In 1987, six years into the pandemic, the World Health Organization (WHO) established the Global Program on AIDS. This program, of which I was executive director from 1990 to 1995, raised awareness about the pandemic; formulated evidence-based policies; provided technical and financial support to countries; initiated relevant social, behavioral, and biomedical research; promoted participation by nongovernmental organizations; and championed the rights of those living with HIV. Among other efforts, the program provided assistance to two countries — Uganda and Thailand — that successfully reversed their epidemics.

Despite its achievements, the Global Program on AIDS was unable to muster the necessary political will in donor and affected countries, and its effectiveness was compromised by rivalries with other United Nations (U.N.) organizations, concern about the senior leadership of the WHO, and an increasing preference of wealthy governments for bilateral aid programs. So in 1996, the program was replaced by the Joint United Nations Programme on HIV/AIDS (UNAIDS), initially cosponsored by 6 U.N. agencies (now 10), with a mandate to lead an expanded, better-coordinated, multisectoral global response. UNAIDS found this task difficult. Its resources were limited, and resolving strategic conflicts among U.N. partners proved nearly impossible. Moreover, wealthy countries became disenchanted with the U.N. system and, as their own AIDS-related mortality declined, disengaged from the global response to the pandemic.

Then, around the turn of the millennium, four key developments inspired a new receptivity to the advocacy of UNAIDS. First, the World Bank became more active in AIDS-related lending, increasing its commitments from $500 million in 1998 to $2.7 billion today, much of it for sub-Saharan Africa. Second, in 2000, the XIII International AIDS Conference, in Durban, South Africa, raised global public consciousness about Africa's upward-spiraling AIDS-related mortality and the need for accessible, affordable antiretroviral drugs. Around the same time, Brazil reported that its use of antiretroviral drugs had dramatically reduced AIDS-related mortality and hospitalizations, providing hope for other developing countries. Emboldened nongovernmental organizations then agitated for the purchase of lower-cost, generic antiretroviral drugs and price reductions for brand-name products, while the Doha Declaration concerning the Agreement on the Trade-Related Aspects of Intellectual Property Rights and Public Health permitted broader access to antiretroviral drugs.

Third, politically powerful religious groups, particularly in the United States, that had long been reluctant to support condom distribution and other sex-related prevention programs embraced the need for global treatment, large-



Expanded timeline available with the full text of this article at www.nejm.org. Adapted with permission from the Henry J. Kaiser Family Foundation (whose complete Global HIV/AIDS Timeline is available at www.kff.org/hivaids/timeline) and from UNAIDS.

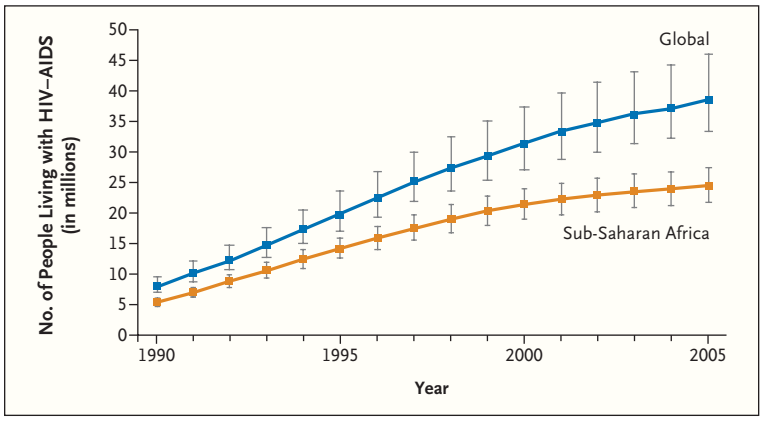


Figure 1. Number of People Living with HIV or AIDS, Globally and in Sub-Saharan Africa.

The I bars indicate the ranges around the estimates. The wider the range, the greater the uncertainty surrounding the estimate. Data are from UNAIDS.

ly in order to reduce the numbers of children being orphaned by AIDS. And fourth, the spread of HIV into Russia, China, and India prompted concern that AIDS could destabilize global political and economic systems beyond sub-Saharan Africa, threatening global security.

These developments generated a long-needed enhanced response. Shortly after the Organization of African Unity declared the AIDS situation in Africa a state of emergency, U.N. Secretary-General Kofi Annan convened a U.N. Special Session on HIV/AIDS in June 2001. There, political leaders from 180 governments adopted a declaration of commitment that set program targets for affected countries and funding levels for donor governments.[3] Soon thereafter, the multilateral Global Fund to Fight AIDS, Tuberculosis and Malaria was established to provide money rapidly for country-owned initiatives. As of March 2006, the fund had committed $5.2 billion to 131 countries, 57 percent of it for AIDS programs.

In January 2003, the U.S. government announced the President's Emergency Plan for AIDS Relief, through which it pledged $15 billion over a period of five years to prevention, treatment, and care, with a focus on 15 countries that are home to 80 percent of the people requiring treatment. Later that year, the WHO announced its intent to extend AIDS treatment to 3 million persons in the developing world by 2005. This "3 by 5" initiative fell short of its target but resulted in antiretroviral-drug treatment for 1.3 million patients (see Figure 2), preventing an estimated 250,000 to 350,000 deaths. In 2005 alone, $8.3 billion was spent on AIDS — about 30 times as much as at the creation of UNAIDS.[2]

Despite recent gains in treatment, only about one in five people in low- and middle-income countries who need antiretroviral drugs are receiving them. A renewed emphasis on the prevention of HIV infection is critical. There is good evidence that available behavioral prevention strategies are effective, yet key prevention services currently reach less than 10 percent of persons at risk. Expanding these strategies worldwide would avert more than half the HIV infections projected to occur by 2015 and save $24 billion in treatment costs.[4] Prevention programs must engage civil society and be evidence-based (not moralistic), locally planned, and linked to efforts to reduce stigma and elevate the status of women. Treatment programs, by increasing demand for HIV testing, can enhance prevention, provided that they minimize the high-risk sexual behavior that can result from the availability of antiretroviral drugs.

There is also a need for research on new approaches to prevention. Adult male circumcision, preexposure antiretroviral prophylaxis against sexual transmission in high-risk populations, acyclovir treatment for herpes simplex virus type 2, and microbicidal agents all hold promise. Although a preventive vaccine has been elusive, there is optimism that one will be developed within a decade.

Better international coordination remains imperative. Donors must align their assistance with and support robust, nationally led strategies, policies, and plans. UNAIDS should continue to enhance its coordination, technical support, monitoring, and leadership.

A quarter century into the pandemic, the global response stands at a crossroads. More new infections and deaths occurred in 2005 than ever before. A year ago, the Group of 8 (G8) countries and the U.N. World Summit embraced the goal of implementing "a package for HIV prevention, treatment and care, with the aim of as close as possible to universal access to treatment . . . by 2010."[5] Such a package will require more resourc-

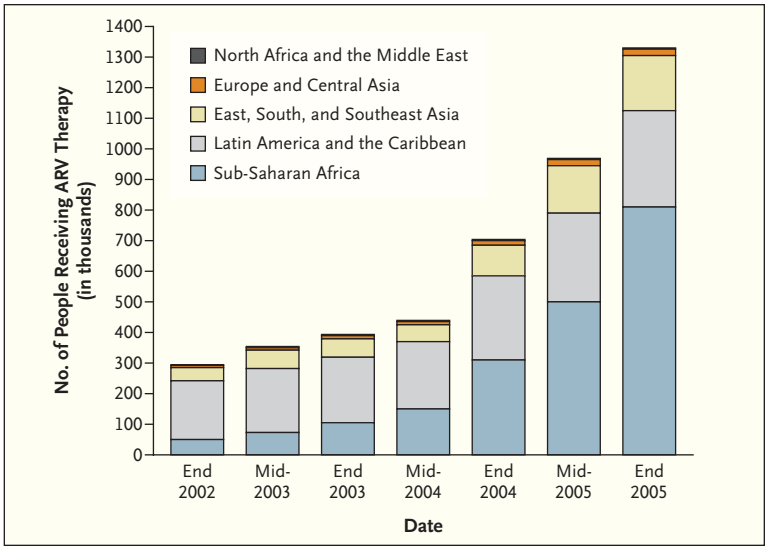


Figure 2. Number of People in Low- and Middle-Income Countries Receiving Antiretroviral-Drug (ARV) Therapy, 2002–2005.

Data are from the WHO and UNAIDS.

es — an estimated $18.1 billion in 2007 and $22.1 billion in 2008.[2] As AIDS becomes a chronic disease, this funding must be used in part to strengthen fragile health care systems. The progress of the past five years provides a solid foundation on which to build the comprehensive and sustainable response vital to ultimate control of this pandemic. Without this response, many millions more will die of AIDS or be catastrophically affected by its consequences.

An interview with Dr. Merson is available at www.nejm.org.

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