HIV/AIDS

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(Draft article for the Princeton Encyclopedia of the World Economy)

HIV/AIDS refers to the human immunodeficiency virus and the associated acquired immunodeficiency syndrome, and was first recognized as a global health issue in the early 1980s. In 2006, about 40 million people globally were living with HIV/AIDS, including 25 million in sub-Saharan Africa, and the epidemic claimed almost 3 million lives in that year. The international response has involved a rapid scaling-up of aid and an expansion of prevention and treatment programs, as well as the establishment of two specialized international agencies to deal with the epidemic – the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria (GFATM).

Epidemiology and Demographics

The most important modes of transmission of HIV are sexual contact with an infected person, sharing needles for injecting drug use, mother-to-child transmission before or during birth or through breast-feeding, and through transfusions of infected blood or blood clotting factors. HIV/AIDS is largely asymptomatic during the first years after infection. Over time, the immune system gets progressively damaged by HIV/AIDS, resulting in increased susceptibility to opportunistic infections (e.g., pneumonia, tuberculosis, and certain types of cancer) and, eventually, death. Antiretroviral treatment, by suppressing the virus, slows down the progression of the disease.

The region worst affected by HIV/AIDS is sub-Saharan Africa; however, the high HIV prevalence rate of about 6 percent for the region masks very substantial differences in HIV prevalence across countries, ranging from less than 1 percent (e.g., Senegal) to over 20 percent, as in Botswana, Lesotho, Swaziland, Zimbabwe (all data on HIV prevalence relate to the population of ages 15-49, at end-2005). While HIV prevalence has remained stabe in sub-Saharan Africa in recent years, it has been spreading rapidly in Eastern Europe and Central Asia. Outside Africa, the country with the highest population of people living with HIV/AIDS is India (5.7 million).

Development Impact

From an economic development perspective, the most direct impact of HIV/AIDS is the increase in mortality and consequent decline in life expectancy associated with it. For some of the worst-affected countries, it is estimated that HIV/AIDS has reduced life expectancy by over 20 years. Development indices like the UNDP's Human Development Index (HDI), combining measures of income, access to education, and health, suggest that HIV/AIDS has been the most significant single adverse development globally over the last decades. Another

consequence of the increase in mortality among young adults associated with HIV/AIDS is an increase in orphan rates, which are estimated to have reached 20 percent of the young population in some of the countries worst affected by the epidemic.

The evidence regarding the macroeconomic impacts of HIV/AIDS is less clear. In light of the slowdown of the growth of the working-age population, there is a consensus that GDP growth also slows down as a consequence of HIV/AIDS. Studies applying a neoclassical growth model typically find that adverse impact of HIV/AIDS on GDP per capita through declining productivity or from a decline in savings rates (e.g., owing to increased health expenditures) are at least partly offset by the impact of increased mortality on the capital labor ratio. The latter effect, however, partly dissipates if investment flows are sensitive to changes in the rate of return to capital.

On the microeconomic level, HIV/AIDS is associated with income losses (both as household members become to sick to work, and as working time is devoted to care) and increased health-related expenditures. Microeconomic data, largely from sub-Saharan Africa, therefore suggest an adverse impact of HIV/AIDS on incomes, consumption, and wealth of affected household. This is most pronounced during illness or around the time of death, while households appear to partly recover later on. To understand the impact of HIV/AIDS on poverty or inequality, it is necessary to take a broader perspective, also covering households that may gain financially as they benefit from income opportunities associated with deaths in other households, most obviously when household members fill HIV/AIDS-related vacancies. Overall, the sparse evidence suggest that an increased volatility in incomes associated with higher mortality translates into an increase in poverty.

International Response

On a global level, recognition of the health, humanitarian, and development challenges posed by HIV/AIDS has translated into an unprecedented effort to contain the epidemic and expand access to treatment. Important steps of the international response were the establishment of UNAIDS and the GFATM, and the United Nations General Assembly Special Session on HIV/AIDS (2004). In financial terms, the scale of the international response to HIV/AIDS has expanded very rapidly over the last years. Consistent estimates for HIV/AIDS-related spending are available for low- and middle income countries only; for these, spending has increased from about US$ 300 million in 1996 to about US$9 billion in 2006, of which about US$6 billion were financed by external aid. The most important funding agencies are the GFATM (see below) and the United States President's Emergency Plan for AIDS Relief.

Depending on the state of the epidemic in a country, national responses to HIV/AIDS emphasize, to different extents and among other aspects, public prevention measures, for example through schools and work places, prevention and awareness measures targeted at risk groups, health system strengthening, improvements in care for people living with

HIV/AIDS, measures to mitigate the social impacts (including support for the increasing number of orphans), and programs to expand access to treatment.

The most effective prevention measures are those targeted at groups at high risk of contracting (and passing on) the virus, including promotion of condom use among sex workers or provision of needles to injecting drug users. Those measures (together with the perceived impact of the epidemic) have been credited with increasing awareness and reducing risk behavior. However, social attitudes (e.g., towards men who have sex with men) or the illegal nature of some of the risk behavior (e.g., injecting drug use) can complicate comprehensive coverage of prevention programs.

However, in the worst affected countries in Southern Africa, the epidemic is generalized, and prevention efforts are more geared towards raising awareness and reducing risk behavior across the population, especially among young adults, for example through the education system, media and advertising campaigns, or public endorsements by leading politicians. While HIV prevalence has risen to double-digit levels in numerous countries in spite of these efforts, many of the worst-affected countries have recently (2005/06) reported increasing HIV awareness and somewhat falling prevalence rates among young adults.

The most significant development in recent years regarding the response to HIV/AIDS has been the decline in the costs of antiretroviral treatment. In many developing countries, certain forms of antiretroviral treatment are currently (2007) available at costs of around $300 annually, down from about US$10,000 in 2000. This development reflects voluntary agreements with drug companies, the possibility – and, sometimes, reality – of compulsory licensing by national governments of the production of patent-protected antiretroviral drugs to address a national health emergency, and the fact that only a certain range of antiretroviral drugs is available at these low prices, which allows for some market segmentation between industrialized and developing countries.

Falling prices of drugs and strong international financial support have contributed to a rapid expansion in access to treatment. UNAIDS reports that the number of people receiving antiretroviral treatment in low- and middle-income countries has increased from 400,000 to 1.3 million between 2003 and 2005 (corresponding to a coverage rate of about 20 percent), with sub-Saharan Africa accounting for the bulk of the increase.

Principal challenges in the future include the management of an increasing number of people requiring treatment (owing to a combination of longer survival of people receiving treatment and – in many countries – a projected increase in people newly requiring treatment); extending the gains made to countries with weaker public health systems, where progress in expanding access to treatment has been less pronounced so far; and managing the fiscal challenges and long-term commitments associated with the expansion in these health programs.

UNAIDS and the Global Fund

The perception of HIV/AIDS as a threat to global health, beyond the capacity and expertise of any single international organization, has resulted in the establishment of a unique institution, the Joint United Nations Programme on HIV/AIDS (UNAIDS) in 1994. UNAIDS coordinates the HIV/AIDS-related activities of its co-sponsoring organizations, which are 10 (initially 6) organizations under the UN system. While a relatively small organization on an international scale (its own operational budget amounted to about US$58 million annually in 2006-07), it is also financing part of the activities of its co-sponsors on HIV/AIDS, as well as interagency activities (US$42 million annually in 2006-07). Moreover, co-sponsors include all of their HIV/AIDS related activities in UNAIDS's Unified Workplan, which brings the total of HIV/AIDS-related spending coordinated by UNAIDS to about US$1.3 billion annually for 2006-2007, about one-sixth of global spending on HIV/AIDS. Additionally, UNAIDS is a key provider of public information on the epidemic, including the annual Report on the Global AIDS Epidemic which is the most important regular publication on HIV/AIDS.

The GFATM is primarily a funding agency. It receives about 95 percent of its funding from the government sources. Grants are typically underwriting comprehensive country programs covering several years, which are coordinated nationally. Between 2002 and end-2006, the GFATM has made total disbursement of US$ 3.3 billion, of which US$1.35 billion were made in 2006. Of the accumulated grant portfolio, HIV/AIDS accounts for the lion's share (56 percent), followed by malaria (27 percent) and tuberculosis (15 percent). While public institutions play the most important role as implementing agencies (accounting for about half of GFATM-supported funding), much of the national responses is implemented by NGOs (about a quarter of funding), or faith-based and academic organizations. Reflecting the burden of disease of HIV/AIDS in the region, sub-Saharan Africa accounts more than half of GFATM funding.

Further Reading:

Many key references are updated periodically and available online. Useful website are the ones of UNAIDS (www.unaids.org), including the Reports on the Global AIDS Epidemic, the GFATM (www.theglobalfund.org), and the Global AIDS Program of the U.S. Centers for Disease Control and Prevention (www.cdc.gov/nchstp/od/gap/). The World Bank's website also includes much useful material, accessible from http://www.worldbank.org/aids. Other references include:

Beck, Eduard J., and others (eds.), 2006, *The HIV Pandemic – Local and Global Implications* (Oxford and New York: Oxford University Press).

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