2000. Training will last about 1 or 2 weeks and will involve topics such as general knowledge of HIV/AIDS and of its progression, prevention, mitigation, and care of HIV/AIDS patients. Approximately six teams of HIV/AIDS experts from various services and the AIDS service organizations would be formed. The training teams would set up multisectoral training camps at the level of each prefecture and of each large urban section. The leaders of the different frontline services and associations would invite their respective members to participate in these training programs. The trainees would receive reimbursement of their travel costs, a small per diem for the training, and would be housed and fed during the week.

During the last 2 days of the workshop, the trainees from each rural or urban municipality (the commune) would form a local committee. They would prepare their own multisectoral action plans to train their local population and to start the process of behavior change. The committee would then be given a small budget in cash or by check to finance incidental costs of their respective program for the first 6 months.

The initial objective in training of the population would be to provide 80% of the rural population and 90% of the urban population with basic knowledge about HIV/AIDS and its prevention. The program should lead to a de-stigmatization of HIV/AIDS victims and to a rapid start in behavior change. During the early part of 2001, a random sample of the population would be given a small test about their knowledge of HIV/AIDS to see whether the target of 80 or 90% coverage had been achieved. The use of prevention techniques would also be measured.

During 2001, training camps at the prefecture level would evaluate the results, deepen the training and focus more sharply on participatory methods for behavior change and on mitigation, treatment, and support to caregivers, survivors, and orphans. Successful committees would prepare more comprehensive action plans, which would also be funded on the spot.

Building on These Experiences

As suggested by the examples discussed above, it is possible to cover entire local government areas or districts with HIV/AIDS programs that include several components, multiple sectors, and many actors. Once a single district can be covered, the approach can be scaled up quickly to national levels. But this will only happen if governments, multilateral institutions, and bilateral donors are willing to empower communities and local and sectoral HIV/AIDS committees with financial resources and enlist those people who have struggled for years in the small, underfunded boutiques to train and guide the large numbers of locally credible volunteers needed to reach the entire population.

As part of the Intensified Action for Africa of the UNAIDS partners, the World Bank can help national AIDS programs to improve the financial architecture of their programs and to radically simplify their disbursement and procurement procedures for the small amounts involved at the level of each committee. In this way, the many actors in multiple sectors who have to implement the different components of a national HIV/AIDS program can be properly trained and funded. The World Bank will complement the domestic resource mobilization efforts and grants from external donors by acting as the lender of last resort for any unfunded component of national HIV/AIDS programs. Other UNAIDS partners, NGOs, and bilateral donors can then better focus their support on their respective areas of expertise.

The task of building truly national HIV/AIDS programs is daunting and risky, but feasible. Only by starting quickly and learning by doing can the risks of such a complex program be mastered. Waiting any longer for fear of making some mistakes will only further increase suffering and death, beyond the unspeakable levels they have already reached.

References

1. G. Foster, T. Nyaruwa, L. Muchaneta, *SAfAIDS News* **7**, 3 (1999).
2. J. C. Caldwell, *Pop. Dev. Rev.* **26**, 117 (March 2000).
3. W. Rojanapithayakorn and R. Hahnenberg, *AIDS* **10**, 1 (1996).
4. The World Bank, *Integrated Rural Development: The World Bank Experience 1965–86* (Operations Evaluations Department, Washington, DC, April 1988).
5. The World Bank, *Rural Development: From Vision to Action* (World Bank, Washington, DC, 1997).
6. *Regional Partnerships to Reduce HIV Infection and Mitigate its Impact in Southern Africa* (Annual Progress Report, Psychology Department, University of Zimbabwe, 31 January 2000).
7. TANESA *Planning of District HIV/AIDS Programmes: Components, Conditions, Contents, Costs* (Mwanza, Tanzania, October 1996).
8. D. Schapnik and R. van Poelje, with I. H. Reerink, *Strategic Principles to Involve Communities in HIV/AIDS Response Development* [Working Document, Royal Tropical Institute (KIT) and TANESA Project, February 2000].
9. J. Ng'weshemi, T. Boerma, J. Bennett, D. Schapink, Eds., *HIV Prevention and AIDS Case in Africa: A District-Level Approach* (Royal Tropical Institute, Netherlands, 1997).

10. The HIV-positive author is director of rural development and environment for Africa in the World Bank and president of AIDS Empowerment and Treatment International. Ernst Lutz helped in the writing of this paper.

VIEWPOINT

Global AIDS Epidemic: Time to Turn the Tide

Peter Piot

HIV/AIDS is catastrophic both from a public health perspective and in terms of its impact on economic and social stability in many of the most severely affected nations, including virtually all of southern Africa. A public health response alone is insufficient to address this devastating epidemic. Political leadership at the highest levels is needed to mobilize a multisectoral response to the impact of HIV/AIDS on educational systems, industry, agriculture, the military, and other sectors. With a few notable exceptions, political response was slow to mobilize in the early years of the epidemic, but response has dramatically improved in the past 18 months. The Joint United Nations Programme on HIV/AIDS (UNAIDS) is involved in ongoing efforts to encourage political leaders to make a multisectoral response to the epidemic a major focus of their national plans.

The AIDS epidemic is not only pushing biomedical research to its frontiers but is also taking public health into uncharted territories in the national and global political arenas. It is sometimes argued that AIDS is treated unnecessarily as a special issue rather than as another disease added to the long list of old and new health problems plaguing the developing world. Such a view does not take into account the full extent and nature of the pandemic.

1) In contrast to most health problems, it primarily affects young adults. This age factor results in at least two of the major consequences of HIV/AIDS, including the unusually high impact on the economy through lost productivity and the large number of orphans left behind, creating a generation of desocialized youth- and child-headed households.

Joint United Nations Programme on HIV/AIDS (UNAIDS), 20 Avenue Appia, Geneva 27, Switzerland.

2) Unlike most other infectious diseases, HIV also affects the educated and skilled, further accentuating its economic impact. In the worst-affected countries, AIDS is single-handedly wiping out decades of investments in education and human resource development.

3) AIDS brings with it a stigma unprecedented in modern times, which is a major impediment in responding to the epidemic.

The year 2000 opened with a debate in the United Nations (UN) Security Council that recognized AIDS as an issue of human security, redefining security to mean not just the presence or absence of armed conflict. Although history offers other examples of destabilizing epidemics, such as Europe's bubonic plague, the speed and scope of HIV transmission worldwide are unprecedented. That AIDS has gone from a disease unknown to the global community to an epidemic infecting 50 million people and killing 19 million to date worldwide offers a clearer lesson on globalization and the interconnectivity of the world than does any media report on the global economy.

Indeed, unchecked, AIDS may become the first example of a massive nonconventional threat to worldwide security, illustrating not only the globalization of problems but the accompanying increase in vulnerability of all countries. Already, in southern Africa, AIDS is devastating the ranks of the most productive members of society with an efficacy history has reserved for great armed conflicts. In the first 10 months of 1998, for example, Zambia lost 1300 teachers—the equivalent of about two-thirds of all new teachers trained annually (*1*). Life expectancy at birth in southern Africa, which rose from 44 years in the early 1950s to 59 in the early 1990s is set to recede to just 45 years between 2005 and 2010. (Figure 1 shows the predicted diminished life expectancy of children born today in several AIDS-affected countries.) Conversely, all-too-frequent armed conflicts and associated population movements are themselves a fertile ground for the spread of HIV and an obstacle to an effective response to the epidemic. The dilemmas raised by AIDS are thus not simply limited to the field of health and science but fall squarely into the political arena: namely, whether world leadership will meet the global threat with a global political response.

Whether we conceptualize AIDS as a health issue only or as a development and human security issue is not just an academic exercise. It defines how we respond to the epidemic, how much money is allocated to combating it, and what sectors of government are involved in the response. Given all we now know about AIDS and its implications for development and security, is the world responding appropriately to AIDS today? With some early notable exceptions, particularly Thailand, Brazil, Uganda, and Senegal, global political leadership is late in responding to the wakeup call. In 1998, long after AIDS had emerged as the leading threat to countries in the Southern Hemisphere, only $300 million in international assistance funds was available for HIV/AIDS activities. Although this figure shows signs of a sharp upward rise, it is estimated that between $1.6 billion and $2.6 billion is needed annually just to mount an effective response in sub-Saharan Africa.

The groundbreaking UN Security Council debate, the high-level political momentum developing in the United States, and the announcement by other industrialized donor countries of increased interest and supply of funds signal the emergence of a new and welcome international response. But the front line of the epidemic is in southern countries themselves, where positive evidence of the impact of all actors coming together under national political leadership is mounting. Indeed, the past 12 months have seen an unprecedented increase in political commitment from leaders throughout the world in addressing the epidemic. This not only takes the form of statements by heads of state and other leaders, but such actions as the formation of high-level AIDS councils with a mandate well beyond public health issues, and often chaired by the president or his deputy.

Support of political advocacy is one of the key mandates of UNAIDS. With an annual budget of $60 million, UNAIDS operates as a catalyst and coordinator of action rather than as a direct funding or implementing agency. UNAIDS has worked to keep the epidemic at the forefront of international political attention through the collection and compilation of data on HIV prevalence, by consistently monitoring and publicizing the status of the global response (or lack thereof) to this crisis, and by formulating strategies to tackle the epidemic.

UN Theme Groups on HIV/AIDS have been successful in mobilizing political commitment in over 100 affected countries. UNAIDS is also the Secretariat for the International Partnership against AIDS in Africa (IPAA), a coalition of governments, civil society, the UN, donors, and private-sector members that was created in 1999. The IPAA works toward the accomplishment of existing goals, such as the one set by the UN General Assembly Special Session on the followup to the Fourth International Conference on Women: to ensure that HIV incidence in 15- to 24-year-olds is reduced by 25% in the most affected countries by 2005.

Within the UN, AIDS is now high on the institutional agenda. The Millennium Report of the Secretary General (available at www.un.org/millennium/sg/report/key.htm) sets specific targets for reducing HIV infection rates and providing young adults access to HIV prevention information and services. The report recommends that every seriously affected nation have an action plan in place 1 year after the Millennium General Assembly, to be held in September 2000. We also use forums such as meetings of the International Monetary Fund and World Bank, the Organization of African Unity, the Economic Commission for Africa, the International Labor Organization, and the Group of 77 South Summit, recently held in Havana, to ensure that AIDS becomes a key part of the agenda of government leaders.

This is a complex epidemic. Simple solutions are unlikely to be effective, notwithstanding our collective desire for such simplicity. The response to the epidemic is therefore not just about best practice (in public health, for example) but about new practice. Access to care for people living with HIV is undoubtedly one of the most complex development challenges that the world currently faces, raising ethical, political, economic, and social issues that most of us would prefer not to have to face.

The wide availability of highly effective antiretroviral therapy in high-income countries has greatly increased the gap between the

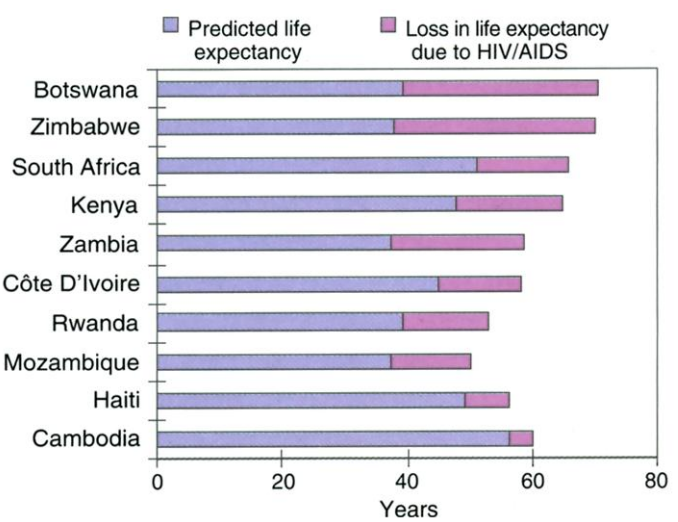

Fig. 1. The impact of HIV/AIDS on the life expectancy of newborn children in 10 developing countries. Source: U.S. Bureau of the Census, 2000.

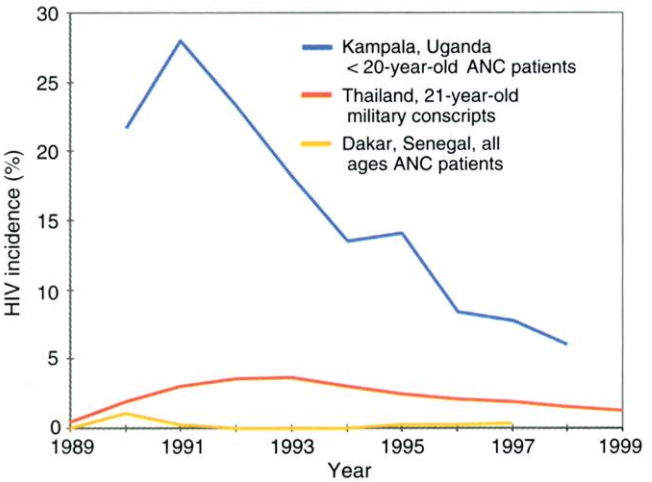

Fig. 2. Trends in the seroprevalence of HIV in populations in Uganda, Thailand, and Senegal, indicating the impact of effective government leadership in fighting the epidemic. ANC, antenatal clinic. Source: National STD/AIDS Control Programmes, Uganda and Senegal; Armed Forces Research Institute of Medical Sciences, Thailand.

North and the South. It is fueling growing anger against the pharmaceutical industry and international development and financing agencies and is confronting governments in heavily affected countries with tough, if not impossible, choices regarding the allocation of meager public resources. Even considering the effects of poor infrastructure and the absence of sustainable financing for health care, the current price of HIV-related medicines is a major factor in the affordability of care for the majority of those who need it. AIDS once more uncovers a conflict in contemporary society—in this particular case, in how it deals with the protection of intellectual property. Although such protection brings important gains in the discovery of new technologies for affluent societies, it can be an obstacle to making these technologies and drugs widely accessible at affordable prices in poor societies.

However, complexity should never be a barrier to action. Lifesaving prevention efforts are not exclusively the domain of the industrialized world. Several countries in Africa and Asia, even as they face sharp budgetary restrictions, devastation of their economic base, and sharp decreases in skilled labor, have mounted productive responses to HIV. (For examples of prevention efforts in Uganda, Thailand, and Senegal, see Fig. 2.)

Successful national programs appear to be characterized by at least seven features: the impact of all actors coming together under one powerful strategic plan; visibility and openness about the epidemic, including involving people with AIDS, as a way of reducing stigma and shame; addressing core vulnerabilities through social policies; recognizing the synergy between prevention and care; targeting efforts to those who are most vulnerable to infection; focusing on young people; and, last but not least, encouraging and supporting strong community participation in the response.

It is an accepted wisdom that responses to the epidemic must be based on solid scientific evidence. Unfortunately, too often science is neutralized by ideology when it comes to issues that are difficult for some members of society to accept. For example, harm reduction among injecting drug users, including needle exchange programs, has been shown in numerous studies to reduce the risk of HIV infection, and yet in most countries of the world such programs are not supported by the government or are even against the law. Another critical area is sex education for school-aged children. Again, there is sound evidence from numerous studies that sex and life-skills education not only results in safer sexual behavior but also does not lead to earlier onset of sexual intercourse nor to increased sexual activity. So why do many school authorities deny their children access to life-saving sex education?

The challenge now is to be highly strategic, highly skillful, highly coordinated, and highly disciplined in applying what we know and to catalyze a social movement against AIDS, fully involving those living with HIV. We should offer nothing less than wholehearted support. Our partners in developing countries should accept nothing less.

References and Notes

1. UNAIDS, *Report on the Global HIV/AIDS Epidemic–June 2000* (UNAIDS, Geneva, Switzerland, 2000). This report is available beginning 27 June 2000 at www.unaids.org (see also B. Schwartlander *et al.*, in preparation). More statistical information on the AIDS epidemic is available at the UNAIDS Web site at www.unaids.org.