AIDS and global health
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Over the past decade the AIDS response has played a major role in producing better health outcomes for people in developing countries. The response mobilizes new advocates, networks, governments and stakeholders every day for greater health outcomes. The AIDS response is leveraging the resulting political capital to move and catalyze agendas to focus on HIV, health and human rights.

However, the AIDS epidemic is not over in any part of the world. As long as there are more people becoming infected than people going on treatment, the world will never get ahead of the epidemic. The 33 million people living with HIV are counting on all of us to deliver results.

The role of the health sector is central to achieving the goal of universal access to HIV prevention, treatment, care and support. AIDS is part of the global health agenda, just as the global health agenda is part of the AIDS response: neither can work in isolation. The AIDS response is an opportunity to improve health systems, and there is a need to further embrace other areas that contribute to health solutions, such as human rights, the law and education.
The status of the HIV epidemic

There are an estimated 33 million people living with HIV, half of whom are women. Two out three people living with HIV are in sub-Saharan Africa. There are about five new HIV infections every minute, of which three are among children and young people. Each day about 5,500 people die from AIDS-related illnesses. As a result, the number of orphans is growing; more than 12 million orphans live in sub-Saharan Africa.

However, since 2001 there has been substantial progress in delivering HIV services to millions of people, especially in low- and middle-income countries. Today, nearly more than three million people are on antiretroviral treatment. By the end of 2007, the annual number of new HIV infections had fallen from 3 million in 2005 to 2.7 million. New infections among children have dropped, due to a rapid scale-up of services to prevent mother-to-child transmission of HIV. Young people in many parts of the world are waiting longer to become sexually active, are having fewer sexual partners or are using condoms. And millions of children orphaned by AIDS now have access to social support and protection. These gains have to be sustained in these tough economic times.

If countries reached their 2010 targets for universal access*, this would dramatically change the course of the epidemic.

Expected outcomes in 132 low- and middle-income countries (in millions)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2010</th>
<th>2015</th>
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<tbody>
<tr>
<td>Number of new HIV infections (annual)</td>
<td>2.7</td>
<td>1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>People on antiretroviral treatment</td>
<td>3.0</td>
<td>6.7</td>
<td>11.6</td>
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<tr>
<td>Workers reached in the workplace</td>
<td>11.8</td>
<td>46.2</td>
<td>96.7</td>
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<tr>
<td>Pregnant women offered comprehensive prevention of mother-to-child transmission services</td>
<td>20.0</td>
<td>74.5</td>
<td>78.7</td>
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<tr>
<td>Men who have sex with men reached</td>
<td>3.9</td>
<td>20.4</td>
<td>23.3</td>
</tr>
<tr>
<td>Safe injections provided</td>
<td>348.3</td>
<td>4,247</td>
<td>5,742</td>
</tr>
<tr>
<td>Orphans supported</td>
<td>1.5</td>
<td>6.7</td>
<td>18.9</td>
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* Under the country-defined universal access approach countries achieve different programmatic targets at different times and the achievement of universal access by all countries by 2015.
Increasing investments in health and being accountable for outcomes

Investments in global health have increased manifold in recent years: it is estimated that US$ 616 billion was spent on health in 2006 in low and middle income countries. Investments have also increased for the AIDS response from a mere US$ 300 million in 1996 to nearly US$ 14 billion in 2008.

Resources are, however, falling short for all health needs, and AIDS is no exception. The number on the waiting list for antiretroviral treatment is nearly twice that already on treatment. Adding to the challenge is the ever increasing number of new HIV infections: more than 7400 each day. To meet the country-set targets for universal access, US$ 25 billion is required in 2010, far short of the nearly US$ 14 billion available.

Advocates for global health must find ways to increase sound investments in global health and AIDS. It is important to sustain the momentum in investments for health. Maintaining the present level of funding or a reduction in the resources available for health will only add to the disease burden and the erosion of health outcomes.
In times of economic crisis, difficult choices have to be made every day. These choices must be informed by evidence and grounded in human rights and must place special emphasis on vulnerable people in poor countries.

Through the ‘knowing your AIDS epidemic and response’ approach, the AIDS response has shown how public health choices can be made without compromising on human rights. Many countries have recently completed a full analysis of where and how the most recent new HIV infections occurred and understand the reasons why they occurred. These data will assist in choosing not just the right strategies but will also make the investments in the AIDS response more effective. At present, the data available on HIV are considered the most comprehensive and accurate health data available.

As we develop health systems the focus must be on outcomes. Since the AIDS response is carried out by many stakeholders, there is a high level of accountability, with reporting to the 2001 and 2006 United Nations declarations and on progress towards achieving the Millennium Development Goals. Stakeholders from all sectors are part of the reporting process, and in some cases also play the watchdog role, through, for example, shadow reports on progress made by countries on the AIDS response. This alone has increased the transparency and accountability of investments in health.
Addressing health equity

The AIDS response is an opportunity to improve health equity. As global health expert Bill Foege has said, “with a new interest in global health research, global health delivery, and social will, we now dare to have a vision of a time when global health equity will be expected… the social norm… rather than simply rhetoric”. Substantial progress on a number of the Millennium Development Goals can be achieved by taking the AIDS response out of isolation and integrating it with efforts to achieve broader human development and the goals of health and social justice. The AIDS response can be used as a bridge for restoring trust in public institutions.

The AIDS response confronts some particularly sensitive issues, sex, gender inequality, sex work, male–male sex, drug use, stigma and discrimination, which have all proved to be enormous barriers to government and civil society responses to the epidemic. Overcoming these barriers will have a wider impact on public health goals.

Today, people living HIV and other marginalized populations have a voice in global health issues, thanks to the AIDS movement. Working together, they are helping find solutions for their communities. The global movement of people living with HIV and the more than three million people on treatment are a force for change.
Primary health care as a means to strengthening health systems

The Alma-Ata primary health-care principles of social justice, solidarity, community participation, wider involvement of all sectors including health, and the right to health for all have been essential elements of the AIDS response. The AIDS movement has demonstrated that it is possible to scale up programmes using these principles and to achieve positive health outcomes.

Evidence shows mostly beneficial effects from an increase in AIDS resources being spent on health and community systems. In many countries, health infrastructure and laboratories have been strengthened, and, in some, primary health-care services and overall health outcomes have improved as a result.

In Ethiopia and Malawi, for example, AIDS programmes provide funds for the construction of health posts. Logistics and medicine supply systems have been strengthened—for example, warehousing and transport capacity have increased. In Haiti, integrated HIV prevention and care was found to have a positive association with a number of primary-care goals, such as vaccination, family planning, tuberculosis (TB) case detection and cure, and health promotion. HIV programmes were designed, from the outset, to generate simultaneous improvements in a range of health outcomes that extend beyond HIV services alone.

In Malawi, the Global Fund, along with the government and bilateral partners, was instrumental in implementing an Emergency Human Resources Plan. This addressed a number of health workforce issues that were impeding scale-up of HIV services, including negotiation with the International Monetary Fund to address fiscal constraints around the recruitment of health workers, changing regulations to allow nurses to prescribe antiretroviral therapy, creation of a mid-level cadre, and workforce retention measures.
Health system strengthening in action

JENGRE, Nigeria—At the Seventh Day Adventist Hospital in this central Nigerian town, one room housed a generator that produced electricity to power Internet connections and the lights for the surgical unit. In the laboratory, a scientist prepared tests on blood samples. In the dirt parking lot in front of the hospital sat a new pickup truck.

All of it—even the salary of the scientist—was paid for by AIDS funding.

“It’s a very critical component of our AIDS programme—to use the HIV funds as a way to strengthen the entire health system and tackle these poverty-related issues”, said Professor John Idoko, a medical doctor and principal investigator for a United States Government-funded Harvard AIDS treatment programme in nearby Jos. At the hospital, administrators gave a tour of the facility to Idoko, who has been working on AIDS issues for 15 years. Idoko oversees AIDS funding for more than two dozen hospitals, clinics and health centres, including the Jengre hospital.

One hospital official showed him the laboratory, the well-stocked pharmacy, the pick-up truck and the primary health-care clinic. The official told Idoko that the AIDS funding enabled the hospital to offer free services for children and for pregnant mothers enrolled in antenatal care.

“This is great! Fantastic!” Idoko said. “This is like a teaching hospital in here!” Idoko said he has often heard the complaints from some analysts and activists that AIDS funding has distorted health systems and caused some to not offer other essential life-saving services, or that well-funded AIDS programmes have lured doctors and nurses away from district and State government programmes.

But that’s not what he sees.

Instead, he said, “through AIDS you are actually attacking so many other diseases because you’re building infrastructure. Look at what happens when you donate a generator to a hospital. The hospital links it to the surgical department and that enables the surgeons to have electricity and light.”

“Through AIDS funding, the three poverty diseases—AIDS, TB and malaria—are being tackled. And by strengthening the health system at the primary health-care and community levels, we are reducing maternal and infant mortality. That is an AIDS programme helping out the other programmes.”

Contributed by John Donnelly
Synergies with other health issues

Linking AIDS treatment and HIV prevention to other health issues and priorities has meant that they have received more attention. Good examples include programmes for sexual reproductive health, TB and safe motherhood. AIDS responses have also strengthened hospital infection control and improved blood safety and transfusions. Substantial Global Fund resources are used for TB control, STI treatment and condom promotion, which have wider health benefits. The issue of paediatric AIDS has contributed to the debate on better medicines for children and new opportunities have emerged to challenge social norms that contribute to ill health. The provision of post-exposure prophylaxis in health settings has led to increased protection for health workers and reduced the stigma and discrimination associated with HIV.

In some countries, delivery systems supported by AIDS programmes have led to more people accessing non-AIDS health services, including immunization and antenatal and maternal care.

HIV has highlighted the underlying causes of poor health, social determinants such as gender inequality, stigma, migration and lack of education. Lessons learned from the AIDS response show that social determinants must be addressed when addressing global health.
**TB and HIV: one life, two diseases**

People living with HIV are particularly vulnerable to TB. Drug-resistant TB and the emergence of extensively drug-resistant TB (XDR-TB), which is essentially untreatable in many parts of the world, could become one of the greatest threats to the success of the global AIDS response. People living with HIV should not have to die of TB.

Multidrug-resistant and extensively drug-resistant TB (MDR/XDR-TB) have developed in large part due to inadequate investment in basic TB control programmes. Relatively little research exists on the full impact of these resistant strains on people living with HIV. Data on the risk of MDR-TB among HIV-positive TB patients is available from just two countries, Ukraine and Latvia, which showed that TB patients living with HIV are almost nearly twice as likely to have MDR-TB as patients without HIV. An XDR-TB outbreak affecting primarily people living with HIV was reported in South Africa and is a cause for great concern to the global community of people living with HIV.

More evidence and surveillance is needed to systematically understand the extent of the problem. In addition, improved and strengthened collaboration between TB and HIV programmes can help to prevent rapid transmission of drug-resistant TB and the resulting high mortality among communities heavily affected by HIV.

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**Influenza A(H1N1) and HIV**

There is no documented information on clinical interactions between HIV and the influenza A(H1N1) virus, whose transmission, incubation period and clinical manifestations have generally been similar to those of seasonal influenza viruses. Although there are inadequate data to predict the impact of a possible human influenza pandemic on people living with HIV, interactions between HIV and A(H1N1) influenza could be significant. Country preparedness plans for influenza will need to address the needs of people living with HIV, and national AIDS plans, especially in high HIV prevalence countries, must consider the public health action required in the event of pandemic influenza.

*(Adapted from WHO guidance on A(H1N1) and HIV infection, May 2009)*
Climate change and HIV

The AIDS epidemic and the climate change phenomenon are two of the most important ‘long wave’ global issues of the recent past, present and future. They share similarities and interactions and present possibilities for a more united response. Yet these links have received little analysis so far.

The maximum impact of climate change is likely to occur decades after the peak incidence of HIV. The severity of HIV and climate change will largely be determined by the temporal overlap of these ranges.

There is agreement that the most important impact of HIV and climate change will be a further deterioration in regional and global food security. At the individual level, nutrition is vital for good immune function, to reduce the risk of acquiring HIV if viral exposure does occur and to slow the progression of HIV to AIDS, and of AIDS to death.

There is agreement that the second major impact will be the climate change related alteration of the distribution of infectious diseases that interact with HIV. Of these, malaria is the most important. Climate change is projected to reduce malaria transmission in some regions that experience a comparatively low rate of HIV, both now and in the future. However, a large population with a high rate of HIV lives on the plateaus of sub-Saharan Africa, an area as yet little affected by malaria. If the climatic, ecosystemic and other factors for malaria transmission alter sufficiently in these plateau regions, the HIV burden of this population is likely to be substantially higher, and will also be worsened by increased poverty and greater food insecurity.
Generating demand for good health

The AIDS response has shown that when the people and communities affected create demand, governments and others have to respond. HIV has put global health on the political agenda and brought increased resources and attention to neglected health and social services.

The AIDS response has brought new ways of working together—by bringing advocates, partners and experts together from all sections of society. This has created a broad and vibrant constituency that extends beyond public health experts. As the Alma-Ata Declaration says, “the people have the right and duty to participate individually and collectively in the planning and implementation of their health care”.

The demand created for equity and rights meant that workable solutions had to be found, especially with regard to expensive treatments. The Agreement on Trade Related Aspects of Intellectual Property Rights on public health (TRIPS Agreement) allowed countries to take action to treat people living with HIV in an emergency health context. Differential pricing helped lower costs in poor countries while ensuring space for future research and development. Strengthened public health delivery systems have helped to reduce the use of counterfeit drugs by poor people.

Using multisectorality to advance the global health agenda

HIV is a health and social issue. By involving the education, agriculture, business, media, labour and other social service sectors, the AIDS response has been able to leverage better health outcomes, just as efforts to eradicate polio, improve dental hygiene and reduce tobacco use have done in recent years. HIV education has strengthened life skills for young people in most countries. Businesses have invested in health in order to safeguard their profits, and in the process saved lives.

Public–private partnerships have helped deliver HIV services in many parts of the world. In Sierra Leone, the government and labour unions, in partnership with the International
Labour Organization, extended a workplace programme in the mining sector to communities. Garment workers in Lesotho are able to access comprehensive health services through a combination of private and public health resources. While in Swaziland, wellness centres set up with support from private companies and health authorities are training the workforce to cope with the stresses of their jobs and are helping to retain workers.

Millions of children are receiving critical social services, resulting in a reduction in the pressure on health services. Bursaries through HIV programmes are keeping thousands of children in school and are meeting their nutritional needs. Home-based care has harnessed the power of communities to look after their people and, at the same time, is reducing the workloads of health-care staff.

Investing in health research and innovation

The experience of combination antiretroviral treatment is a powerful reminder that science and a culture of innovation can tackle many global health problems. Investment in finding new diagnostic tools for TB should be a top priority. The world is a long way off from finding a vaccine or microbicide to protect against HIV, but efforts must continue. Prevention research in pre-exposure prophylaxis and other clinical trials are needed to add new tools to the combination HIV prevention mix. Social science research has advanced significantly the understanding of the socioeconomic dimensions of HIV transmission and provides a model for analysis of other health issues. A better understanding of the social determinants and of ways to change them for positive health outcomes is essential for sustainable health outcomes.

Moving forward

The global response to the HIV epidemic is at a crossroads. The emergency footing of the response over the past 25 years and the broad social mobilization of stakeholders have spearheaded remarkable action and results. Yet the hard-won gains are fragile and call for sustained commitment and leadership. Moving the AIDS or health response in isolation is no longer an option. Investments in health must contribute to people’s ability to lead a socially and economically productive life. Ultimately, we must be united around one common goal: results for people.
UNAIDS is an innovative joint venture of the United Nations, bringing together the efforts and resources of the UNAIDS Secretariat and ten UN system organizations in the AIDS response. The Secretariat headquarters is in Geneva, Switzerland—with staff on the ground in more than 80 countries. The Cosponsors include UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO and the World Bank. Contributing to achieving global commitments to universal access to comprehensive interventions for HIV prevention, treatment, care and support is the number one priority for UNAIDS. Visit the UNAIDS website at www.unaids.org