

The President's Emergency Plan for AIDS Relief

Mark Dybul, MD
 Assistant U.S. Global AIDS Coordinator
 and Chief Medical Officer
 Office of U.S. Global AIDS Coordinator
 United States Department of State
 Washington, District of Columbia

SUMMARY BY TIM HORN
 EDITED BY YVETTE DELPH, MD

Reprinted from *The PRN Notebook*® | MARCH 2005 | Dr. James F. Braun, Editor-in-Chief | Tim Horn, Executive Editor.
 Published in New York City by the Physicians' Research Network, Inc.® | John Graham Brown, Executive Director
 For further information and other articles available online, visit [HTTP://WWW.PRN.ORG](http://www.prn.org) | All rights reserved. ©MARCH 2005

THERE ARE BETWEEN 38 AND 42 MILLION PEOPLE WORLDWIDE INFECTED WITH HIV, 95% OF WHOM LIVE IN DEVELOPING COUNTRIES (see Figure 1). HIV/AIDS has killed more than 20 million people worldwide, with approximately 3.1 million deaths reported in 2002 alone. AIDS is the leading cause of death in Africa, where approximately 70% of the worldwide epidemic is concentrated, and the fourth-leading cause of death worldwide.

"The numbers are beyond comparison," Dr. Mark Dybul said in opening his December 2004 PRN lecture. "By 2010, there will be 45 million new infections, for a total of 105 million cases of HIV in the world. There will be 25 million orphans by 2020, a number that blows me away every time I hear it. Seventy million deaths are also anticipated by 2020. That's more than the number of people who died in World War II, including all civilian and military casualties. The impact on global stability is very real. When we look at Africa, the entire continent could very well implode. Fortunately, there is something we can do."

The U.S. Government Response to the Global HIV/AIDS Epidemic

IN A PAPER PUBLISHED TWO YEARS AGO IN *THE LANCET*, JOHN STOVER and his colleagues at The Futures Group International (TFGI), based in Glastonbury, Connecticut, examined the potential effect of an expanded response to the global HIV/AIDS epidemic using mathematical mod-

els of HIV transmission (Stover, 2002). In short, it was determined that if the successes achieved in some countries in preventing HIV transmission could be expanded to a global scale by 2005, approximately 29 million new infections could be prevented by 2010. "If we intervened two years ago," Dr. Dybul said in his review of the TFGI data, "we could have prevented 60% of new infections. This was how the President's Emergency Plan for AIDS Relief was born. We recognized the need to focus on both treatment and prevention."

The U.S. Government has been funding international AIDS programs for many years, initially in the form of contributions from the U.S. Agency for International Development (with funds usually going to UNAIDS, the United Nations AIDS program), international research sponsored by the National Institutes of Health, and additional funding from the U.S. Centers for Disease Control. Under the Bush Administration, in 2001, the U.S. Government co-founded the Global Fund to Fight AIDS, Tuberculosis, and Malaria, in collaboration with United Nations Secretary-General Kofi Annan, in an effort to increase resources to fight three of the world's most devastating diseases, and to direct resources to areas of greatest need.

In 2002, the U.S. Government announced a \$500 million International Mother and Child HIV Prevention Initiative. Through a combination of improving care and drug treatment, it is hoped that this ini-



FIGURE 1. Estimated Number of Persons Living with HIV/AIDS, December 2002

There are between 38 and 42 million people worldwide infected with HIV, 95% of whom live in developing countries. HIV/AIDS has killed more than 20 million people worldwide, with approximately 3.1 million deaths reported in 2002 alone. AIDS is the leading cause of death in Africa, where approximately 70% of the worldwide epidemic is concentrated, and the fourth-leading cause of death worldwide.

Source: UNAIDS

TABLE 1. PEPFAR Focus Country HIV/AIDS Profile Information: 2001 Surveillance Data

Country	Adults (15–49) With HIV/AIDS	Adult Infection Rate	Children (0–14) With HIV/AIDS	Orphans Currently Living	AIDS Deaths Adults and Children
Botswana	300,000	38.8	28,000	69,000	26,000
Côte d'Ivoire	690,000	9.7	84,000	420,000	75,000
Ethiopia	1,900,000	6.4	230,000	990,000	160,000
Guyana	17,700	2.7	800	4,200	1,300
Haiti	240,000	6.1	12,000	200,000	30,000
Kenya	2,300,000	15.0	220,000	890,000	190,000
Mozambique	1,000,000	13.0	80,000	420,000	60,000
Namibia	200,000	22.5	30,000	47,000	13,000
Nigeria	3,200,000	5.8	270,000	1,000,000	170,000
Rwanda	430,000	8.9	65,000	260,000	49,000
South Africa	4,700,000	20.1	250,000	660,000	36,000
Tanzania	1,300,000	7.8	170,000	810,000	140,000
Uganda	510,000	5.0	110,000	880,000	84,000
Zambia	1,000,000	21.5	150,000	570,000	120,000

A 15th country, in a region other than Africa or the Caribbean, has yet to be named.

Source: Office of the United States Global AIDS Coordinator

tative will reach approximately one million women annually and will reduce mother-to-child transmission of HIV by 40% within five years in twelve African countries and the Caribbean.

In 2003, the President's Emergency Plan for AIDS Relief (PEPFAR) was announced, and in 2004, the International Vaccine Initiative which, Dr. Dybul explained, "is focused on getting everyone in the world working together on the development of safe and effective vaccines against HIV infection."

PEPFAR

PEPFAR TARGETS \$9 BILLION IN NEW FUNDING OVER FIVE YEARS TO RAMP up prevention, treatment, and care services in 15 of the most affected countries of the world (see Table 1). PEPFAR also devotes \$5 billion over five years to ongoing bilateral programs in more than 100 countries and increases the U.S. Government's pledge to the Global Fund by \$1 billion over five years. "It's always worth noting that this is the largest international health initiative in history dedicated to a single disease," Dr. Dybul said. "It is an accountable program. The goals are to treat two million people within five years, to prevent seven million new infections, and to care for ten million HIV-infected people, orphans, and vulnerable children. We also intend this program to be sustainable. The heart and soul of PEPFAR is to support national strategies, to build capacity for the future."

Engendering Bold Leadership

A MAJOR COMPONENT OF PEPFAR IS TO ENGENDER BOLD LEADERSHIP and additional resources from other countries in the fight against the global HIV/AIDS epidemic. A number of strategies have been outlined to achieve this.

First, the U.S. Government must engage heads of state and other government officials through bilateral diplomatic interventions and multilateral forums. Heads of state have a vital role to play—and particular responsibilities to bear—in mounting an appropriate response to HIV/AIDS.

In countries facing current or emerging epidemics, leadership from heads of state can and must generate early and effective action by publicly acknowledging HIV/AIDS as a problem in their country, raising and devoting appropriate resources, and demanding broad involvement.

To encourage leadership from heads of state and other government officials, PEPFAR calls for diplomatic interventions by high-level officials in Washington and American ambassadors abroad: to engage directly with those heads of state and counterparts in government such as ministers of health, education, defense, and foreign affairs. This will require that American embassy staffs abroad become informed and engaged on issues of HIV/AIDS as it relates to their host countries. It will also require the U.S. to advocate for greater leadership through multilateral forums, such as UNAIDS, the Global Fund, and international HIV/AIDS events and conferences.

Engendering leadership, however, does not end with heads of state. There is also a need to reach out to a broad range of community leaders and private institutions to generate a multisectoral response to the global epidemic. As is true in virtually all nations, trusted community leaders have reach, authority, and legitimacy to carry forward vital messages about HIV/AIDS and to combat stigma, denial, and negative cultural practices. In addition, where government has not responded adequately to HIV/AIDS, grassroots leadership can help mobilize appropriate responses, including resources, from government.

To fulfill this requirement, the U.S. Government will continue to engage community leaders such as mayors, tribal authorities, elders, and traditional healers. Even in countries where there is strong government leadership, failure to involve community leaders can undermine efforts to implement sound policies and programs. Efforts will also be made to work with faith-based leaders, as well as national and international business coalitions and labor organizations.

PEPFAR also acknowledges the importance of using tools of communication—such as media—to engage new partners in the global fight against HIV/AIDS. In turn, media campaigns will be undertaken to inform the public of the extent and nature of the HIV/AIDS epidemic in the 162

countries where the U.S. is represented. This will include the placement of public service announcements on radio and television and publication of op-ed pieces by American ambassadors and others. Also in place are plans to assist journalists in promoting responsible reporting on HIV/AIDS.

Engendering bold leadership also requires significant coalition building among donor nations and public and private institutions working to raise additional resources for global AIDS. “We need to work with all of the countries and groups contributing to this effort,” Dr. Dybul said.

Interventions in the Focus Countries: Prevention

TO ACHIEVE ITS GOAL OF PREVENTING 7 MILLION NEW HIV INFECTIONS, PEPFAR plans to utilize “ABC” prevention programs: Abstinence, Be faithful, and correct and consistent use of Condoms. Identified best practices such as increased testing; appropriately tailored interventions for specific populations including women, men, and high-risk groups; the involvement of people living with HIV/AIDS, parents, and leaders from all sectors of society; and stigma reduction will be aggressively promoted to achieve real results in reducing the number of new infections.

There are four primary prevention strategies outlined in PEPFAR. The first calls for a rapid scale-up of existing prevention services. PEPFAR suggests that immediate action to implement comprehensive prevention programs could avert 60% of new HIV infections in resource-limited settings by 2010. A central goal of PEPFAR is to establish long-term, sustainable national prevention programs in each country. However, in the short term, it will work to move quickly through the expansion of current activities. Public and private organizations in affected countries are poised to rapidly and accountably scale-up programs in the following priority areas: prevention of HIV infection through abstinence and behavior change for youth; prevention of HIV infection through HIV testing, targeted outreach, and condom distribution to high-risk populations; prevention of HIV infection from mother to child; and prevention of HIV infection through safe blood, improved medical practices, and post-exposure prophylaxis.

To build capacity for effective long-term local and national prevention programs, PEPFAR plans to build, strengthen, and improve the quality and sustainability of prevention programs by promoting evidence-based best practices, encouraging innovation and evaluation to identify effective new approaches, and improving program planning, implementation, management and monitoring. Much like the short-term prevention program goals stated above, long-term operational strategies include the promotion of the “ABC” model, innovative expansion of HIV testing programs, supportive interventions for those at high risk of infection, reaching and engaging mobile male populations, improving the diagnosis and treatment of sexually transmitted infections, and developing and strengthening institutional capacity of implementing organizations.

Advancing policy initiatives that support the prevention of HIV infection is another priority of the PEPFAR prevention program. Not only is it necessary to support the work of organizations engaged in prevention projects, but also to support implementation of good policies and effective legislation, particularly at the community level. In turn, PEPFAR funding has been earmarked to ensure legal protection against stigma and discrimination, especially within workplaces, schools, and the military. Confidentiality, in the context of routine HIV testing, is also a priority. Other policy issues that may be addressed through PEPFAR technical assistance include human resources policies, including the broadening of responsibility for HIV testing and counseling to lower levels of care, along with access to health information and care, particularly among traditionally underserved populations. Policies to promote gender equality and the prevention of sexual violence against minors are also an initiative.

“A major component of PEPFAR is accountability,” Dr. Dybul said. “In turn, it is essential that we collect information to monitor and evaluate the progress of these programs and to ensure compliance with PEPFAR policies and strategies.”

Interventions in the Focus Countries: Treatment

ANOTHER AGGRESSIVE GOAL OF PEPFAR IS TO PROVIDE ANTIRETROVIRAL treatment over the next five years to at least two million people living in focus countries. However, meeting this goal requires far more than providing a consistent supply of essential antiretrovirals, although this is a daunting challenge in itself. It requires addressing complex issues such as the lack of adequate infrastructure, staff, and technical capacity to provide safe, high-quality treatment programs that reach even rural communities. Further, many countries have yet to develop appropriate treatment protocols and policies to ensure safe and adequate drug supply and the equitable distribution of health resources.

The first strategy outlined in PEPFAR is to rapidly scale up treatment availability through what is known as the “network model.” As explained by Dr. Dybul, network models are made up of central medical facilities, district-level hospitals, and local health clinics, supplemented by private facilities (see Figure 1 on page 28). This network concept of public and private health care institutions currently provides the backbone design of healthcare delivery systems, and many of the focus countries—e.g., Nigeria, Uganda, and Haiti—have planned their HIV/AIDS strategies with networked healthcare systems as the foundation.

Unfortunately, the current capacity of these existing networked healthcare systems to deliver HIV/AIDS prevention, treatment, and care services is limited, particularly in rural areas. PEPFAR, in accordance with national health and HIV/AIDS strategies and with the intent to build long-term sustainability, aims to strengthen linkages between central facilities and international and private support to build the capacity of different network components and strengthen network-wide linkages in order to more effectively deliver quality HIV/AIDS services to those who need them most.

Within these networks, central medical centers and referral hospitals must have an adequate number of healthcare professionals trained in all aspects of HIV/AIDS clinical and program management. These facilities need to have adequate physical infrastructure, research capabilities, and must be able to effectively link with a series of smaller regional hospitals and district facilities—down to community-level satellite clinics, mobile units, and community based services. To reach rural areas, community-based healthcare workers will deliver essential supplies, including medications, to patients in their communities.

Nurses and community healthcare workers will be trained in routine care, symptom management, and monitoring for treatment adherence, while highly trained doctors—currently in scarce supply in many of the focus countries—will use their expertise in specialized and difficult cases. For example, doctors will periodically visit a community to evaluate patients identified for advanced care by nurses and community healthcare workers.

“Networks such as this are already established in countries like Uganda,” Dr. Dybul commented. “We actually do this in the United States as well.” In Alaska, for example, there are healthcare networks that work with a single central medical center in Anchorage. “The university in Anchorage provides the tertiary care, but the network allows nurses and community health aids to provide care to those who need it in some of the most remote tribal communities, some several hundred miles away from the central medical center.”

Beyond scaling up treatment availability through the network

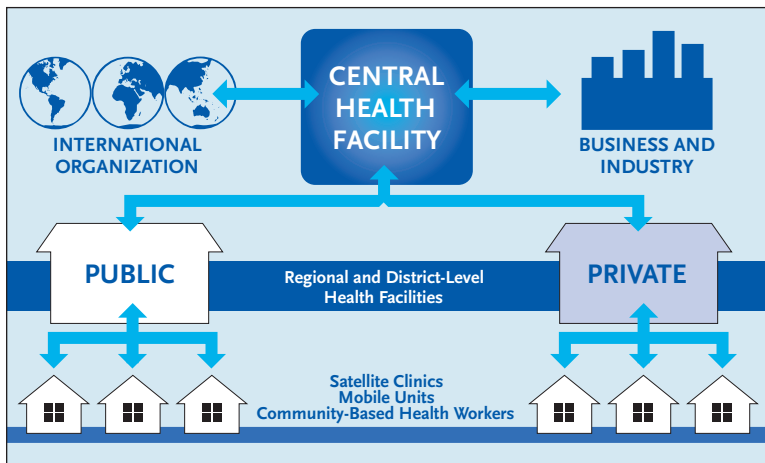


FIGURE 1. The Healthcare Network Model

PEPFAR plans to scale up treatment availability through what is known as the “network model.” Network models are made up of central medical facilities, district-level hospitals, and local health clinics, supplemented by private facilities. This network concept of public and private health care institutions currently provides the backbone design of healthcare delivery systems, and many of the focus countries—e.g., Nigeria, Uganda, and Haiti—have planned their HIV/AIDS strategies with networked healthcare systems as the foundation.

Within these networks, central medical centers and referral hospitals must have an adequate number of healthcare professionals trained in all aspects of HIV/AIDS clinical and program management. These facilities need to have adequate physical infrastructure, research capabilities, and must be able to effectively link with a series of smaller regional hospitals and district facilities—down to community-level satellite clinics, mobile units, and community based services. To reach rural areas, community-based healthcare workers will deliver essential supplies, including medications, to patients in their communities.

Source: Office of the United States Global AIDS Coordinator

model, PEPFAR also aims to build capacity for long-term sustainability of quality HIV/AIDS treatment programs, to advance policy initiatives that support treatment, and—as with the planned prevention work—collect information to monitor and evaluate progress and compliance with PEPFAR strategies and policies.

Interventions in the Focus Countries: Care

A FINAL INITIATIVE OF PEPFAR IS TO RAPIDLY SCALE UP CARE SERVICES FOR 10 million people living with—and affected by—HIV/AIDS. This involves palliative care for people living with HIV and AIDS: basic health care and support services, including symptom management, social and emotional support, and end-of-life care. This also involves rapid scale-up of existing care services for orphans and vulnerable children.

Routine clinical monitoring and management of HIV-associated complications is a component of this strategy. This will include opportunistic infection prophylaxis and treatment; management of AIDS-related neoplasms; management of neurological complications; symptom diagnosis and relief; social support, including organization of basic necessities such as nutrition, financial assistance, legal aid, housing, and permanency planning. End-of-life care that is to be scaled up through PEPFAR will include mental health care and support, social support, support for caregivers, and bereavement support for family members.

As for the scale-up of services for orphans and vulnerable children, PEPFAR seeks to support family and community mechanisms that will


ultimately reduce the need for institutionalized care (e.g., orphanages). Alternatives to traditional orphanages, such as community-based resource centers, continue to evolve in response to the massive number of orphans left behind by the AIDS epidemic. These centers help families continue to support children within the community, providing support groups, counseling, temporary medical care for HIV-infected children, training in parenting skills, skills training programs for older children, and daycare for parents or foster parents who need relief. They can also prevent children from entering the worst forms of child labor.

In some cases, however, institution-based care is necessary. For abandoned children or children living on the street, an institution might be the only alternative to death from exposure and starvation. The challenge is to develop better alternatives, such as emergency and long-term foster care and local adoption. In addition, there has been an increase in facility-based palliative care for children living with HIV/AIDS. Many of these institutions are also reaching out to provide care in local communities.

PEPFAR plans to build, strengthen, and improve the quality and sustainability of programs to meet the needs of orphans and vulnerable children through rapid scale-up, capacity building, strengthening the enabling environment, tracking progress and establishing the best practices.

Conclusion

IN 2004, THE UNITED STATES GOVERNMENT RELEASED A TOTAL OF \$2.4 billion for PEPFAR-related programs. “This is more than all other international donor governments combined,” Dr. Dybul said. “\$865 million has already been provided to programs in focus countries. By June of 2005, we will have succeeded in providing antiretroviral therapy to more than 200,000 HIV-positive people in our focus countries—more than our target—which is pretty astonishing, especially when you consider that, in January 2004, only 100,000 HIV-positive people in all of sub-Saharan Africa were receiving antiretroviral therapy. Also by June of 2005, we will exceed our goal of support care for 1.2 million people and will have provided \$1.45 billion in funding in our focus countries.”

Beyond the numbers, Dr. Dybul closed his lecture with a very telling and reaffirming anecdote: “In South Africa there was a hospice center where people came to die. As a result of the generosity of many people, PEPFAR began supporting that hospice center in January 2004, treating individuals rather than having them come there to die. On World AIDS Day, it was traditionally a day of remembrance at the hospice for all the people who died. The hospice would bring in the families and the orphans to speak of their lost parents and loved ones. This year on World AIDS Day, in December 2004, because of the President’s Emergency Plan, they had a day of celebration—to celebrate the life of everyone who was living throughout the year because of the intervention of the Emergency Plan. Of course, it’s not just the President’s Emergency Plan that we’re talking about here; it’s the people in the country doing the work—the individuals and our organizational partners. This is what we’re doing and this is what the world is doing. I think we can all be very proud of that.” 

References

- Office of the United States Global AIDS Coordinator. *The President’s Emergency Plan for AIDS Relief: U.S. Five-Year Global HIV/AIDS Strategy*. Accessed at: <http://www.state.gov/documents/organization/29831.pdf>
- Stover J, Walker N, Garnett GP, et al. Can we reverse the HIV/AIDS pandemic with an expanded response? *Lancet* 360(9326):73-7, 2002.