A lab technician uses updated technology at the newly renovated National Blood Transfusion Center in Guyana, which was constructed and equipped with Emergency Plan support.

**"This effort is succeeding because America is providing resources and Africans are providing leadership. Local health officials set the strategy and we're supporting them."**

**President George W. Bush**
**June 30, 2005**

# Chapter 6
# Building Capacity for Sustainability

The tragic reality is that the fight against HIV/AIDS in hard-hit nations will have to continue for the long term. This fight will only be sustainable if it is owned by the people of each country. In many nations, this will require an increase in response of a magnitude that can best be described as a transformation. The primary responsibility for achieving such dramatic change ultimately rests with the leadership and citizens of developing nations themselves. The U.S. Government (USG) and other international partners can play a vital and catalytic role, but outside resources for HIV/AIDS and other development efforts must be focused on transformational initiatives that are owned by host nations.

Local civil society organizations – including nongovernmental organizations (NGOs), faith-based organizations, community-based organizations, and the private sector – are crucial for this development, and are well-placed to identify the needs of their own country and devise strategies for meeting them. In addition to working with governments, the Emergency Plan thus focuses on supporting grassroots organizations, prioritizing funding to develop their capacity. A commitment to local ownership is

## Human Resource Capacity Building

**Results**

In fiscal year 2005, the Emergency Plan supported training or retraining for more than 536,000 service providers (with individuals being trained in multiple areas in certain cases) and supported 14,960 service sites in the focus countries, including:

- Support for training of 267,600 individuals in prevention of sexual transmission
- Support for training of 28,600 individuals in prevention of mother-to-child transmission and 2,500 service sites
- Support for training of 20,300 individuals in prevention of medical transmission and 600 service outlets that carry out blood safety activities
- Support for training of 36,500 individuals to support antiretroviral treatment and 800 treatment sites
- Support for training of 74,800 individuals to care for orphans and vulnerable children
- Support for training of 86,300 individuals to care for HIV-positive people and 6,800 service sites
- Support for training of 22,200 individuals to provide counseling and testing (in addition to those trained in prevention of mother-to-child transmission) and 4,160 service sites

the basis for PEPFAR's focus on working with host nations and supporting their strategies to bring comprehensive national responses to scale.

At this point, international NGOs are indispensable partners in PEPFAR implementation, and there will always be more work to do in resource-poor settings. Yet we must support the building of sustainable, country-owned programs. Therefore, grant language for international NGO partners will require them to take steps to build local capacity, and the Emergency Plan will begin to require such partners to develop "exit strategies" – plans for reducing their own role and devolving responsibility to local people and organizations on a reasonable timeframe.

Review of annual Country Operational Plans (COPs) includes an evaluation of efforts to increase the number of indigenous organizations partnering with the Emergency Plan. This emphasis has led to impressive results: in fiscal year 2005, approximately 82 percent of Emergency Plan partners were local organizations. The progression toward reliance on local organizations, while challenging, is essential for PEPFAR to fulfill its promise to help host nations develop sustainable responses. As another step in the direction of sustainability, COPs for fiscal year 2006 were required to devote no more than 10% of funding to a single partner (with exceptions made for host government partners, commodity procurement, and "umbrella contractors" for smaller organizations). This requirement will help to expand and diversify PEPFAR's base of partners and facilitate efforts to reach out to new partners, particularly local partners – a key to sustainability.

Alongside efforts to support community capacity-building, enhancing the capacity of health care and other systems is also crucial for sustainability. Among the obstacles to these efforts in many nations are inadequate human resources and capacity, limited institutional capacity, and systemic weaknesses in such areas as: quality assurance; financial management and accounting; health networks and infrastructure; and commodity distribution and control. The Emergency Plan is intensively supporting national strategies to strengthen these critical systems. Across the focus countries in fiscal year 2005, partners reported that approximately 25 percent of activities had components that directly support health network development. Because building capacity goes hand-in-hand with expanding services, the previous chapters on Prevention, Treatment, and Care also summarize Emergency Plan efforts to ensure sustainability.

Financial capacity is another key issue. The capacity of host nations to finance HIV/AIDS efforts on the scale required varies widely. Many deeply impoverished nations are many years from being able to mount comprehensive programs with their own resources alone. Yet it is essential that these countries appropriately prioritize HIV/AIDS and do what they can to fight the disease with locally available resources, including financial resources. A growing number are doing so. Many other nations do have significant resources, and are in a position to finance much of their own HIV/AIDS responses. A growing number of these nations, also, are investing in fighting the disease on a scale commensurate with their financial capacity. In some cases, for example, host nations are procuring all or a portion of their own antiretroviral drugs (ARVs), while PEPFAR provides support for other aspects of quality treatment. Such developments within hard-hit nations are very positive for building sustainability in each country's fight against HIV/AIDS.

While HIV/AIDS is unmistakably the focus of PEPFAR, the initiative's support for capacity-building has important spillover effects that assist nations' broader efforts for sustainable development. Organizations whose capacity is expanded in order to meet USG fiduciary accountability requirements are also in an improved position to apply for funding for other activities or from other sources. Expanded health system capacity improves responses for diseases other than HIV/AIDS. Supply chain management capacity building improves procurement for health commodities generally. Improving the capacity to report on results fosters accountability, supporting the development of good governance and democracy. In a variety of ways, the Emergency Plan supports host nations in identifying their needs and in building the tools to address them in the future.

***Building sustainable institutional capacity***

Because of the intensive focus of the President's Emergency Plan on sustainability, many activities are intended to build the institutional capacity of local organizations to plan, implement, and manage HIV/AIDS programs. The Emergency Plan recognizes that all sectors of society, including governments, civil society institutions, and the private sector, must be involved.

The fiduciary accountability of local organizations is crucial to the Emergency Plan's effort to build capacity – and the Emergency Plan has made a major effort to provide technical assistance to partners in this area. An impediment to working with many local groups is the limited technical expertise in accounting, auditing practices, and other activities required to receive funding directly from the USG. In fiscal year 2005, several focus countries used local "umbrella contractors," including those that serve as local fiduciary agents for the Global Fund to Fight AIDS, Tuberculosis and Malaria. The resources of the Twinning Center, described below, were also used to strengthen capacity in these areas.

The Emergency Plan has also begun to gather data in COPs and through results reporting on capacity-building. USG partner agencies are instructed to review partner performance in strengthening indigenous organizations as part of portfolio reviews conducted in the field, and the Emergency Plan will conduct a cross-country assessment of partner performance in this area to identify best practices and tools for measuring success. As noted above, in fiscal year 2006, in-country teams will devote no more than 10 percent of resources to a single partner unless one of several specified exceptions is satisfied, helping to broaden PEPFAR's partner base.

### *Host governments*

The organizing structure, management, coordination, and leadership provided by capable, committed host governments are essential to an effective, efficient HIV/AIDS response. Without commitment from government, parallel service delivery systems – usually dependent on large international NGOs – dominate a country's response. This model puts host nations at the mercy of continued funding, and continued management, by outsiders – the antithesis of sustainability.

Strengthening the institutional capacity of host governments and national systems is thus a fundamental strategy of the Emergency Plan. As a result, more than 20 percent of Emergency Plan partners in fiscal year 2005 were host government entities, including ministries of health (MOHs) and associated institutions, research organizations, and AIDS coordinating authorities. The Emergency Plan has supported the development of national policy and training in planning, budgeting, performance improvement, monitoring of activities and finances, and other management skills.

In several focus countries, U.S. personnel are located in, or detailed to, MOHs. In others, PEPFAR has supported MOH personnel retention schemes or contractual staffing arrangements, bolstering the number of health professionals working in the public sector and in rural areas. This supports national health system development in the face of the dramatic human resource crises these countries are facing. In Namibia, for example, the USG partners with Potentia, a private sector Namibian personnel agency, to support doctors, nurses and pharmacists for public hospitals, at the same salaries as government workers, thus supporting needed staff positions in an equitable fashion. The Kenyan Medical Research Institute uses PEPFAR funds to actively train and support 260 healthcare workers who provide such services as: technical assistance; personnel support to improve laboratory capacity; support for adherence to counseling; and assistance with monitoring and reporting on the progress of antiretroviral treatment (ART) regimens.

### *Local civil society organizations*

Local community- and faith-based organizations also play critical roles as first responders to community needs, and often have access to hard-to-reach or underserved populations, such as orphans and people living with HIV/AIDS (PLWHA) in urban slums or remote rural areas. When trained in program management and HIV/AIDS best practices, these groups often design the most culturally appropriate and responsive interventions. They often have the legitimacy and authority to imple-

## The HIV/AIDS Twinning Center

To assist nations' efforts to develop local capacity for sustainability, the Emergency Plan has supported establishment of the HIV/AIDS Twinning Center by HHS/HRSA. The Center is helping to strengthen human and organizational capacity by using health care volunteers and twinning relationships between similar organizations. These relationships facilitate skills transfer and can rapidly expand the pool of trained providers, managers, and allied health staff delivering quality HIV/AIDS services.

Twinning partnerships are typically formed between a U.S. partner and a country partner, but eligible participants may be U.S.-based, regional or local. Eligible entities include government agencies; schools of medicine, nursing, public health, management, and public administration; health sciences centers; community- and faith-based organizations; and third party country governments or organizations with cultural or linguistic ties to host nations.

The Twinning Center also oversees the new Volunteer Health-Care Corps, a network of health care volunteers, HIV/AIDS professionals, and support personnel who will be placed within the twinning partnerships. They will assist partners with clinical, educational, and capacity-building services without interrupting ongoing efforts.

ment successful programs that deal with sensitive subjects. In many focus countries, more than 80 percent of citizens participate in religious institutions, and upwards of 50 percent of health services are provided through faith-based institutions, making them crucial delivery points for HIV/AIDS information and services. The Emergency Plan thus recognizes the value faith-based organizations can add to HIV/AIDS efforts. In fiscal year 2005, approximately 25 percent of all Emergency Plan focus nation partners were faith-based.

In addition, local civil society organizations play a key role in organizing citizens to work in effective partnership with their governments. Organizations of people living with HIV/AIDS are among the key community-based groups that have been integrated into the Emergency Plan. PEPFAR has also launched pilot programs in multiple countries that allow groups to apply directly to Emergency Plan country teams for rapid approval of small grants in order to get funds quickly to local organizations doing needed work on the ground. One example of PEPFAR's impact comes from Côte d'Ivoire, where despite a fragile political environment, the Emergency Plan has worked with community leaders to create a local organization which has now become a PEPFAR partner, while also making grants to smaller community-based entities.

### *The private sector*

The nations where the Emergency Plan is at work have private sectors in a wide variety of stages of development. In many of the nations of sub-Saharan Africa, the private sector remains small, while in such nations as India, China, and South Africa, it is large and growing. Every nation does have a business community on some scale, however, and in every nation businesses have special contributions to make to the national HIV/AIDS response. PEPFAR considers expanding its support for public-private partnerships a priority area for fiscal year 2006. Key strengths businesses can bring to the fight include:

- Leveraging products, expertise and core competencies
- Educating employees and surrounding communities on HIV/AIDS prevention
- Making voluntary, confidential HIV counseling and testing available
- Supporting lifesaving ART
- Combating stigma and advocating for people living with HIV/AIDS
- Adopting company-wide polices to protect against HIV/AIDS discrimination
- Forming strategic partnerships with governments and civil society to address the needs of the broader community

## Best Practices
## The African Palliative Care Association: Improving quality of life for people living with HIV/AIDS across Africa

Supporting indigenous organizations in building their capacity is a key element of PEPFAR's focus on sustainability. Three months after its 2004 inaugural meeting in Arusha, Tanzania, the African Palliative Care Association (APCA) received $250,000 in Emergency Plan funding to support the expansion of palliative care for PLWHA in African focus countries. At that time, APCA was a nascent, indigenous pan-African association in the formative stages of organizational development. APCA aims to support the expansion of affordable and culturally-appropriate palliative care, helping to realize the Emergency Plan vision of a holistic approach to relieve physical, emotional and practical suffering of people living with HIV/AIDS (PLWHA). With PEPFAR support, APCA established headquarters in Kampala, Uganda and supported scale-up of local and national palliative care associations and programs across Africa. APCA mobilized its Advisory Committees to provide technical assistance and training in various countries.

The Emergency Plan supported APCA in providing institutional development to national palliative care associations in Zambia, Tanzania and Kenya. The Palliative Care Association of Zambia (PCAZ), for example, entered into a twinning partnership with APCA through PEPFAR's HIV/AIDS Twinning Center. Through the partnership's work, PCAZ established its office and work plan, and put plans in motion to hold a national stakeholders meeting and train-the-trainer program to advance Zambian palliative care goals.

For over three years the Government of Botswana sought training from palliative care experts in other African countries to integrate palliative approaches (such as pain and symptom management, holistic care, antiretroviral treatment (ART) support, and bereavement care) into their national community home-based care training program. With Emergency Plan support, APCA developed the training program in partnership with the government, and almost 200 health professionals and community home-based care coordinators were trained in palliative care in 2005. The Honorable Minister of Health, Professor Sheila Dinotshue Tlou, launched the training event.

In April 2005, APCA brought together African stakeholders and health providers from 10 of the 12 African focus countries to develop a strategy that would build donor relations and develop key palliative care policies across Africa. The workshop emphasized priorities set forth by the World Health Organization to advance palliative care, including expanded palliative care drug access, policy development, and training and education. With this support, African stakeholders and providers are now able to more effectively leverage other support and address key policy gaps in their countries. This includes appropriate symptom management for PLWHA who are on ART and pain management for PLWHA during the end-of-life stage of the disease.

Finally, as a direct result of the initial Emergency Fund support to build APCA's indigenous infrastructure, APCA has successfully leveraged $1.2 million in funding from other international partners, helping to ensure the sustainability of its valuable work.

## The New Partners Initiative

On World AIDS Day, December 1, 2005, President Bush announced that the Emergency Plan will provide $200 million for grants to new partners to provide HIV/AIDS prevention and care services – the New Partners Initiative (NPI).

## The need for new partners

Today, many organizations have the capability to reach people who need HIV/AIDS services, but lack experience in working with the USG and its processes. Community and faith-based organizations, in particular, represent vital but underutilized resources. Many such organizations are well-established within communities and well-placed to reach out to those infected and affected by HIV/AIDS.

Building the capacity of organizations at the community level also helps to build local ownership of HIV/AIDS responses for the long term. In some countries, such organizations provide as much as 40-50 percent of all care for people living with HIV/AIDS – with little support from the USG. In some cases, existing U.S.-based organizations can serve as a "bridge" due to their relationships with these entities in host countries.

## NPI goals

The Emergency Plan will reach out to organizations through NPI, working to enable them to become new partners. The goals of the initiative are to:

Increase the Emergency Plan's ability to **reach** people with needed services:

- Identify potential new Emergency Plan partner organizations
- Increase their capacity to provide prevention and care services
- Increase the total number of Emergency Plan partners

Build **capacity** in host nations:

- Develop indigenous capacity to address HIV/AIDS to promote the sustainability of host nations' efforts

## How the NPI will work

***Competitive grants:*** NPI will include a competitive process for $200 million through fiscal year 2008 in grants to provide HIV/AIDS prevention and care services. Eligible entities are nongovernmental organizations, working in any of the fifteen Emergency Plan focus countries, with little or no experience working with the USG – defined as no more than $5 million in USG funding during the preceding five years, excluding disaster or emergency assistance or funding as a subcontractor.

***Leadership:*** NPI will be led by the U.S. Global AIDS Coordinator, assisted by an interagency USG Executive Committee with representation from Emergency Plan in-country teams. The Coordinator will set and approve policies and direction for NPI and will appoint a New Partnerships Director, who will manage the program.

***Partner outreach:*** Initial inventories of potential participants already working in affected countries will be conducted in order to shape outreach strategies. Regional bidders' conferences, held in the U.S. and abroad, will be offered. The first U.S. conferences will take place from January through April of 2006 in Philadelphia, Atlanta, Denver, and Los Angeles.

***Pre-competition assistance:*** NPI will offer technical and capacity-building assistance to participants to help them compete now and in the future – both within the NPI grant process and in other competitions. Technical assistance will focus on topics such as: initial needs assessment; proposal writing; pre-award audits; personnel recruitment; competition processes; and monitoring and evaluation planning.

***Post-award capacity-building assistance:*** NPI will offer assistance to successful applicants, focusing on: successful program implementation; needs analysis; and organizational growth and strengthening.

## Best Practices
### Côte d'Ivoire: A company reaches out to its employees – and its community

In late 2004, the Ivoirian Ministry of Health received an urgent call from Bardot, one of West Africa's largest slums and an international melting pot, in the port city of San Pedro. SOGB, a rubber company, was losing too many of its workers and their family members to AIDS, and company officials were looking for help. The Ministry's National HIV Care Program (PNPEC) conducted a site visit in April 2005 to assess the situation, setting in motion a PEPFAR-supported public-private partnership that now provides free HIV prevention, care, and treatment services for SOGB employees as well as the underserved surrounding community.

Company and local health authorities in the region developed a global action plan, and PEPFAR funded training of a physician and a laboratory technician at SOGB's medical facility. The company-owned health center is now open to the community and provides services free of charge. Further demonstrating its willingness to establish a strong and collaborative public-private partnership, SOGB provides laboratory services such as free hematological exams to all patients, including those coming from the public sector. The Emergency Plan also supports equipment for biochemistry and CD-4 counts for clients at the company's health center.

The 30-year-old physician at the company health center has a deep understanding of the family approach to HIV care and is committed to providing a comprehensive package of services to HIV-infected clients and their families. He participates regularly in weekly antiretroviral treatment (ART) prescription meetings. In accordance with national policy, the drugs are provided free to patients employed by the company. In August and September 2005, 44 patients started ART at the company health center, making up about 20% of all patients on ART in the region. During a supervisory visit, the physician reported that company officials are so enthusiastic about the program that they want to add a prevention of mother-to-child transmission program.

Through its leadership, SOGB has generated interest in extending the program among other major private companies, including San Pedro's sea port, which employs more than 3,000 people.

The Emergency Plan is working in partnership with a growing number of local businesses, helping them to grow their capacity to meet the needs of their employees and their families, as well as the larger communities of which they are a part. In South Africa, for example, the large mining company Anglo American is a PEPFAR partner, reaching out to the community with effective programs and building the nation's capacity to address HIV/AIDS.

## Building Human Resources and Capacity

Quality and sustainability in HIV/AIDS prevention, treatment, and care begin with people – but under-resourced nations typically lack the trained health workforces to meet their desperate needs. The Emergency Plan supports national strategies with innovative approaches to training and retention; broadened policies regarding who can administer HIV/AIDS services; and the use of volunteers and twinning relationships to rapidly build the army of local service providers required to combat this disease.

Ministries of health throughout Africa are recognizing the importance of building their capacity in human resources management and human capacity development. The Emergency Plan, along with other international partners such as the Global Fund and the World Bank, is working with host governments to support these institutions, many of which suffer from severe shortages of staff. In Rwanda, the MOH requested that the USG fund and mentor a human resources for health (HRH)

specialist within the MOH. She has offered strong leadership and has made a significant difference on several important HRH initiatives, such as:

- Advising on recruitment criteria and contributing to plans for a staff appraisal system
- Preparation and presentation of a draft HRH policy for an interagency HRH technical working group
- Development of human resources strategic plan
- Identifying the need for and guiding the development of an HRH information database
- Arranging 32 postgraduate scholarships for Rwandan health professionals

This model of supporting the human resource planning and management functions within the MOH is currently being considered for other countries.

***Training networks***

Many nations have policies that mandate that only health professionals can provide health services – creating access constraints in under-resourced settings. The Emergency Plan supports efforts to train individuals to provide services at the hospital, clinic, community, and home levels, helping expand the reach of a limited pool of trained professionals such as doctors and nurses. Collaboration with the International Training and Education Center on HIV (I-TECH), active in Africa, East Asia, India, and the Caribbean, is a key part of efforts to develop highly trained HIV/AIDS educators, providers, and managers. PEPFAR and I-TECH collaborate on a Nursing Initiative, for example, which includes training of nurse trainers, development of curricula, and leadership and advocacy training. The Emergency Plan also supports training of home health aides to perform routine follow-up and patient counseling for adherence to drug regimens.

PEPFAR has developed a prevention of mother-to-child transmission (PMTCT) Generic Training Package in collaboration with the World Health Organization (WHO), building provider capacity and collaborative partnerships within countries. The Emergency Plan has sought to anchor the training in advanced centers to ensure quality, while also developing tools to assess the quality of the training. One example of a training assessment tool is the Instructional Design and Materials Evaluation Form. This research and evaluation tool evaluates and scores curricula in terms of instructional design elements, content review, and evaluation methodology. USG training efforts are directed not only at expanding clinical capacity, but at developing the pool of trained managerial personnel. These non-clinical staff are a key element of effective health networks, which foster quality programs. The Emergency Plan has made on-the-job HIV/AIDS training for health care workers a priority, in order to avoid the disruption to care that can occur with off-site training.

To reach prevention, treatment, and care goals, and to provide services equitably, networks must reach to the community level, often in rural areas that are not appealing places to live for many health care professionals. The Emergency Plan now supported a successful government project in Namibia to provide incentives to health professionals to locate to underserved rural areas. In Zambia, the Emergency Plan is supporting placement of 35 physicians in rural areas to help scale up treatment into these areas.

PEPFAR capacity-building activities integrate groups of PLWHA, training members to provide patient education, adherence counseling, and patient follow-up. This frees clinical staff to serve more specialized needs while helping to combat HIV/AIDS-related stigma.

***Access to health professionals and "brain drain"***

Shortages of physicians and other health professionals in the developing world remain a major challenge not only for HIV/AIDS efforts, but for all health care delivery. Root causes of limited human capacity include the toll of HIV/AIDS on providers, shortfalls in pre-service academic training, both in availability of professional education and accessibility of HIV/AIDS curricula within professional schools. The Emergency Plan supports the development and implementation of curricula in pre-

## Best Practices
## Namibia: Counselors from the community help meet the needs of the community

Namibia is one of few countries in Africa utilizing community or lay counselors for counseling and performance of rapid testing in public health facilities. The Ministry of Health and Social Services, in collaboration with the Emergency Plan, introduced the community counselors program in May 2005 to increase capacity to provide counseling and testing services and enhance the effectiveness of prevention of mother-to-child transmission (PMTCT) and antiretroviral treatment (ART) services.

**Taimi Monica Nyangele (right), a community counselor in a Namibian Ministry of Health facility, receives training in rapid testing from Helena Hidenywa, a nurse.**

Quality counseling and testing is a cornerstone for the success of PMTCT, ART and other services. Yet due to a lack of human resources capacity, quality services had been limited in Namibian public health facilities, with healthcare workers unable to cope with the high demand. Community counselors, selected from the community by health workers, fill this crucial gap in human resources by assisting over-burdened health workers with counseling and testing and a wide range of other activities.

The program grew from 24 counselors in May to 112 counselors, providing services in 45 public health facilities, in September 2005. The counselors are recruited and trained rigorously for twelve weeks before deployment to public health care facilities, and they work under close supervision from health care providers in charge of clinics. In just these initial few months, the initial counselors provided pre-test counseling to 11,474 clients and post-test counseling to 9,540, reflecting the important gap in the clinical setting that these counselors are filling.

In July 2005, the Ministry officially launched rapid HIV testing in public health facilities. Community counselors have been trained in rapid diagnostic test techniques by laboratory scientists at the Namibia Institute of Pathology (NIP). More than 95 % of deployed counselors have passed the rapid HIV testing examination and have been certified to perform the tests. This is a major accomplishment, considering that rapid testing is typically conducted by NIP laboratory scientists and the average community counselor has only a junior or senior secondary level of schooling. Community counselors provide an affordable ($200 per month) and effective resource appropriate to the needs of Namibian communities.

service settings and pre-service training for key health care professionals. Because HIV infection and stigma also contribute to limiting the number of clinical providers, prevention activities and leadership to combat stigma play important – but often overlooked – roles in addressing human capacity shortfalls.

The "brain drain" of trained health professionals from their home countries to wealthier nations continues to inflict a devastating toll on health systems in many countries with major HIV/AIDS burdens. Brain drain within countries, particularly from ministries of health to large international NGOs, is also a major issue. It should be noted, however, that recent discussions and data have questioned the impact of brain drain on systems in resource-poor settings. In Kenya, data suggest that limited nursing staff might be due primarily to nurses dying, presumably in large part from HIV/AIDS, rather than brain drain.

The Emergency Plan supports innovative programs in this area. Kenya, like many sub-Saharan countries, faces a human resources crisis due to lack of health care providers able to deliver treatment and care in high need areas. With PEPFAR support, the USAID-implemented Capacity Project is working with health sector leaders to refine and operationalize an emergency hiring plan that takes advantage of the country's surplus of unemployed nurses, physicians and other providers. The plan creates a non-governmental outsourcing mechanism to quickly hire, train and deploy 800 providers in public-sector health centers within a year's time. This plan has been approved and endorsed by the MOH. To keep physicians from leaving Zambia, the Emergency Plan is supporting hardship and housing allowances as an incentive to keep doctors in the country and in rural areas. Efforts to strengthen health care systems, discussed below, also play a key role in helping to keep qualified health professionals from leaving for other countries.

## Strengthening Essential Health Care Systems

In most of the resource-poor countries served by the Emergency Plan, achieving the Plan's vision of a high-quality, sustainable HIV/AIDS response requires implementing and strengthening essential systems, including clinical quality assurance systems; health care networks, including infrastructure; and commodity procurement, distribution, and management systems. One critical area of PEPFAR work with host nations is development of surveillance and monitoring and evaluation capacity, including training of host government staff to carry out surveillance activities, analyze data, and report results to key stakeholders. These activities are discussed in the chapter on Improving Accountability and Programming.

### *Clinical quality assurance*

The President's Emergency Plan reflects a belief that people in the developing world deserve HIV/AIDS prevention, treatment, and care services that are of high quality. In all of its clinical capacity-building work, PEPFAR seeks to support host nations as they expand their capacity to ensure quality.

Quality assurance capacity-building activities include support for monitoring and evaluating programmatic indicators, on-site supervision systems, and district, national, and international reviews. The Emergency Plan supports programs to adapt quality improvement approaches to the needs of developing countries. For example, the Quality Assurance and Workforce Development Project implemented by USAID uses a collaborative approach in which teams of providers have documented improvements in the quality of prevention, care and treatment services. These teams may bring counselors, clinicians, laboratorians, and pharmacists together to discuss difficult cases and recommend courses of action, such as helping to oversee changes to costly second line therapies. The providers work in tandem with community volunteers who help people living with HIV/AIDS to access appropriate services and develop self care skills.

Innovative means for information dissemination to improve clinical management also receive PEPFAR support. The Emergency Plan is supporting the updating and dissemination of HIV clinical care data management software (CAREWare), originally developed by HHS/HRSA for use in the U.S. The software promotes quality care by providing a clear, customizable, user-friendly, and confidential platform for entering, collecting, and reporting demographic, service, and extensive clinical information. An international version has been developed and implemented with PEPFAR support in Uganda, Zambia, Kenya, Tanzania, and Nigeria, with plans for adoption in Vietnam and Thailand. Clinical guides that have been made available both in hard copy and on CD-ROM include:

- A Guide to the Clinical Care of Women with HIV
- A Clinical Guide to Supportive and Palliative Care for People with HIV/AIDS
- A Guide to Primary Care of People with HIV/AIDS

The HIVQUAL software program is another tool currently in use in some PEPFAR host nations, such as in Rwanda's ART quality program. To facilitate quality improvement, HIVQUAL helps participants measure key indicators and use these measurements to benchmark

and make progress in working toward objectives. The software currently measures the following indicators: HIV staging, ART management, opportunistic infections prophylaxis, gynecologic care, tuberculosis and substance use screening, treatment adherence, specialty referrals, patient education, and access to expert HIV care. For further information, see the chapter on Treatment.

***Health care network and infrastructure development***

The HIV/AIDS epidemic has placed a huge burden on the health care systems of many high-prevalence countries. Major disparities often exist between urban and rural health services, with a concentration of health professionals and institutions in the major cities. The Emergency Plan is supporting host nations in meeting the demand for services by rapidly expanding existing indigenous health networks. This includes supporting linkages and coordination between central health facilities and outlying health clinics, including those in rural areas, to deliver quality HIV/AIDS services.

The Emergency Plan also helps strengthen linkages and coordination between health and other service delivery institutions and organizations, public and private, that provide necessary prevention, treatment, care, and other support to people infected and affected by HIV/AIDS. The goal is to increase the number of people accessing comprehensive HIV/AIDS services by improving reach and filling gaps in service delivery. Pfizer's Global Health Fellows program, for example loans personnel worldwide to governmental and nongovernmental organizations. Historically, Pfizer loaned medical personnel; now, complementing the Emergency Plan, Pfizer also loans financial and organizational management experts that support partner NGOs and MOHs to strengthen health systems. As a result of Pfizer loaning a fellow with an expertise in financial management to the Mothers to Mothers-to-Be Program (M2M2B) in Cape Town, South Africa, the program has been able to start new sites and plan for even more, expanding HIV-positive mothers' access to services.

Common infrastructure obstacles to national responses include under-resourced facilities; unreliable electricity and water supplies, especially outside urban areas; outdated or broken equipment; and lack of information and communications technology for basic program planning and monitoring. Flexible computer-based data systems can help host nations to classify, store, and analyze scientific information, allowing them to set national priorities, make important decisions on resource allocation, and monitor program activities.

In support of national strategies and Emergency Plan goals, PEPFAR is addressing these barriers by supporting such activities as renovation of existing health facilities; procurement of equipment, supplies, furniture, and vehi-

## Best Practices
## Developing a training package for HIV rapid tests

To meet the growing demand for a well-trained and competent workforce to perform rapid HIV tests, the USG worked with the World Health Organization to develop the HIV Rapid Testing Training Package. The package includes a training video/DVD, presentations slides, a trainer's guide, and a manual for participants. All training package materials are available in English and plans are under way to make them available in Spanish, French and Portuguese. The training package also provides flexibility for meeting specific country requirements.

Lab technicians work with HIV rapid tests.

## Best Practices
## Ethiopia: Talkline – A lifeline for people concerned about HIV/AIDS

In countries where health care infrastructure is scarce, creative steps for addressing HIV/AIDS can be critical. With support from PEPFAR, in March 2005, Ethiopia's first national, toll-free number, the Wegen HIV/AIDS Talkline, was officially activated to support the united HIV/AIDS response. The service reported that 363,970 callers from all over Ethiopia utilized it within its first nine months, of whom 11 percent sought and received counseling, 84 percent information, and 5 percent referral to clinical, psychological, financial and social support services.

Talkline provides a confidential and accessible avenue for up-to-date and accurate information and services to reach the general population, including those infected with and affected by HIV. Callers now have access to information on HIV/AIDS prevention, treatment and care, sexually transmitted infections, and tuberculosis. In many cases, this is their only reliable means for information or discussing sensitive, personal issues in a confidential manner.

A 27 year-old HIV-positive male in a rural location far from Addis Ababa has called Talkline regularly. It has been three years since the client discovered his HIV-positive status, but he has struggled to come to terms with it. He had declined to access other HIV services because he feared people would stigmatize him. Over the course of numerous calls to Talkline, the client developed a trusting relationship with a counselor, who provided clear and practical information on living with HIV/AIDS and eventually referred him to HIV services in the medical system. The client continues to rely on his counselor for psychosocial support and is preparing to initiate antiretroviral treatment – something that would likely not have happened if Talkline had not been there for him.

cles; improvement of information systems; and financing as needed for expanded HIV/AIDS service delivery under the Emergency Plan.

*Laboratory support*

A good laboratory network is a cornerstone of a strong response to HIV/AIDS. Without laboratory support, it is very difficult to diagnose HIV infection and provide quality care and treatment for PLWHA. In most Emergency Plan countries, existing laboratories lack equipment and trained staff, as well as established quality control procedures to help ensure the reliability of testing. Emergency Plan staff have worked to strengthen the capacity of all focus countries to diagnose HIV and related infections. This is allowing growing numbers of people to learn their HIV infection status, and allowing physicians to reliably determine which patients will benefit from HIV treatment and to monitor the success of that therapy.

One priority is to support the use of rapid HIV tests. These tests, which require minimal equipment and can be reliably performed by lay counselors, can dramatically expand a country's capacity to perform HIV testing, as described in the Care chapter. Rapid HIV tests are especially important in peripheral testing sites, far from fully equipped laboratories. Emergency Plan personnel have prepared a training package on Rapid HIV Testing. They have participated in training of trainers and other staff to ensure that trained manpower will be available for conducting such testing at PMTCT and other counseling and testing sites. Similar training packages for hematology, chemistry and CD-4 testing are being prepared that can be used by national personnel for future training.

Emergency Plan staff have been involved in supporting countries and collaborating agencies in the important task of evaluating rapid HIV test algorithms for use in-country. This ensures that counseling and testing programs use the proper tests to identify people living with HIV/AIDS. The Emergency Plan is devoting consider-

able resources to building capacity in a National Reference Laboratory (NRL) in each country. As the apex of a laboratory network, NRLs have an important responsibility to supervise and train personnel in other laboratory sites within a country. The NRL is also responsible for quality assurance for laboratory testing.

Incidence testing provides countries with the best data on where recent transmission has occurred. This information is essential for planning effective prevention programs and for measuring the success of programs in achieving the PEPFAR prevention goal. Emergency Plan teams have provided in-country/regional training on incidence testing in Ethiopia, Rwanda, South Africa and Vietnam. Training in China and an Asia regional workshop are planned.

As discussed in the chapters on Children and Treatment, diagnosis of HIV infection in newborns is technically complicated and costly. Laboratories providing such testing are usually not located near PMTCT sites. In an effort to expand access to vital infant testing, Emergency Plan staff have trained local staff in the use of dried blood spots (DBS). This allows for the ready transport of specimens to central or provincial laboratories where testing is available.

CD-4 testing is necessary for determining the level of immunosuppression in HIV infection. It is an important adjunct for determining when to initiate treatment and for monitoring response to treatment. Emergency Plan staff have been involved in the evaluation of lower cost and simpler assays for measuring CD-4 cells. Training has been provided in conjunction with partners in Ethiopia, Tanzania, Côte d'Ivoire, Tanzania, and Malawi.

As more individuals are treated the issue of resistance to ARVs will become more prominent. PEPFAR country teams are working with host nations to develop national or regional programs to conduct population-based resistance testing for monitoring resistance within a country. These will also use DBS for specimen collection and transport to laboratories.

Laboratory quality assurance is critical in assuring accurate diagnosis of HIV infection, determining when to start treatment, and for monitoring while on treatment. The Emergency Plan has supported extensive training of in-county staff on building and sustaining quality laboratory systems and is helping to establish proficiency testing programs for laboratory testing in such areas as hematology, chemistry, CD-4 testing, and infant diagnosis. This will build confidence in the ability of the laboratories to support the HIV programs, as well as sexually transmitted infection (STI) and TB programs. The USG will also assist in the development of laboratory certification programs in each country.

***Commodity procurement: the Partnership for Supply Chain Management***

Comprehensive HIV/AIDS programs that are sustained for the long term require a continuous inflow of high-quality medicines and supplies. In concert with in-country partners, the U.S. Government is supporting host nations to build the necessary infrastructure to fight the global pandemic of HIV/AIDS. The Partnership for Supply Chain Management (the Partnership), established in fiscal year 2005, will strengthen systems to deliver an uninterrupted supply of high-quality, low-cost products that will flow through a transparent, accountable system.

Participation in the Partnership is voluntary and services can be selectively utilized depending on the needs of the country and program. In those countries where existing supply chains are working well, the Partnership will be available as an option to "fill in the gaps" and monitor key steps in the supply chain process. Among the menu of services the Partnership will make available are commodity quantification, procurement, and shipping and delivery to points of service. The Partnership consortium will help deliver essential lifesaving medicines to the front lines of Emergency Plan joint efforts with host nations. The Partnership will ensure a healthy, robust lifeline of continuous drugs and supplies that are safe, secure, reliable and sustainable, and will offer the possibility of cost efficiencies. It will also allow reliable forecasting of need to ensure adequate production.

Its activities will include supporting the purchase of life-saving antiretroviral drugs (including low-cost generic ARVs approved or tentatively approved by HHS/FDA); drugs for opportunistic infections such as tuberculosis; quality laboratory materials such as rapid test kits; and supplies like gowns, gloves, injection equipment, cleaning and sterilization items.

Based on the winning proposal, the contract funds up to $77 million in system operating expenses and technical assistance over the first three years. The drugs and supplies handled by the system could total $500 million or more over that same period. The contract will be responsive to requests from countries and programs in the field and will be adjusted accordingly.

Under the President's Emergency Plan, the Partnership will not build parallel systems; it will be additive and complementary to existing supply chain efforts in the field. It is intended to "fill in the gaps" where supply chain services are needed the most. It will:

- Develop and maintain a competitive and transparent procurement system, including forecasting future need and leveraging volume purchasing to achieve significant reductions in the current costs of commodities
- Establish a quality assurance plan to manage documentation and ensure quality of commodities
- Provide freight forwarding and warehousing services to facilitate consolidation and shipping from manufacturers worldwide
- Establish in-country support teams to provide the highly complex technical assistance needed to improve existing programs
- Develop Management Information Systems (MIS) to track the commodities provided through this agreement by estimating needs by recipient programs, financial accounts by country and funding source, production and warehouse stock levels, and the status of all shipments in-transit

The Partnership will support the purchase of non-ARV drugs that are needed for HIV/AIDS patients, including opportunistic infection, STI, tuberculosis, and some anti-malarial drugs. In addition, drugs needed for home and palliative care of HIV/AIDS patients will be purchased.

The Partnership is a non-profit organization established by leaders in international supply chain management, including four African organizations. The partners are:

- Affordable Medicines for Africa - Johannesburg, South Africa
- AMFA Foundation - St. Charles, Ill.
- Booz Allen Hamilton - McLean, Va.
- Crown Agents Consultancy, Inc. - Washington, DC
- Fuel Logistics Group (Pty) Ltd. - Sandton, South Africa
- International Dispensary Association - Amsterdam, Netherlands
- JSI Research and Training Institute, Inc. - Boston, Mass.
- Management Sciences for Health, Inc. - Boston, Mass.
- The Manoff Group, Inc. - Washington, DC
- MAP International - Brunswick, Ga.
- Net1 UEPS Technologies, Inc. - Rosebank, South Africa
- The North-West University - Potchefstroom, South Africa
- Northrop Grumman Information Technology - McLean, Va.
- Program for Appropriate Technology in Health - Seattle, Wash.
- UPS Supply Chain SolutionsSM - Atlanta, Ga.
- Voxiva, Inc. - Washington, DC
- 3i Information, Inc. - Edison, N.J.

Each partner offers unique capabilities that will ensure that high-quality ARVs, HIV tests, and other supplies for treating HIV/AIDS are available to the people – patients, clinicians, laboratory technicians, and others who need them.