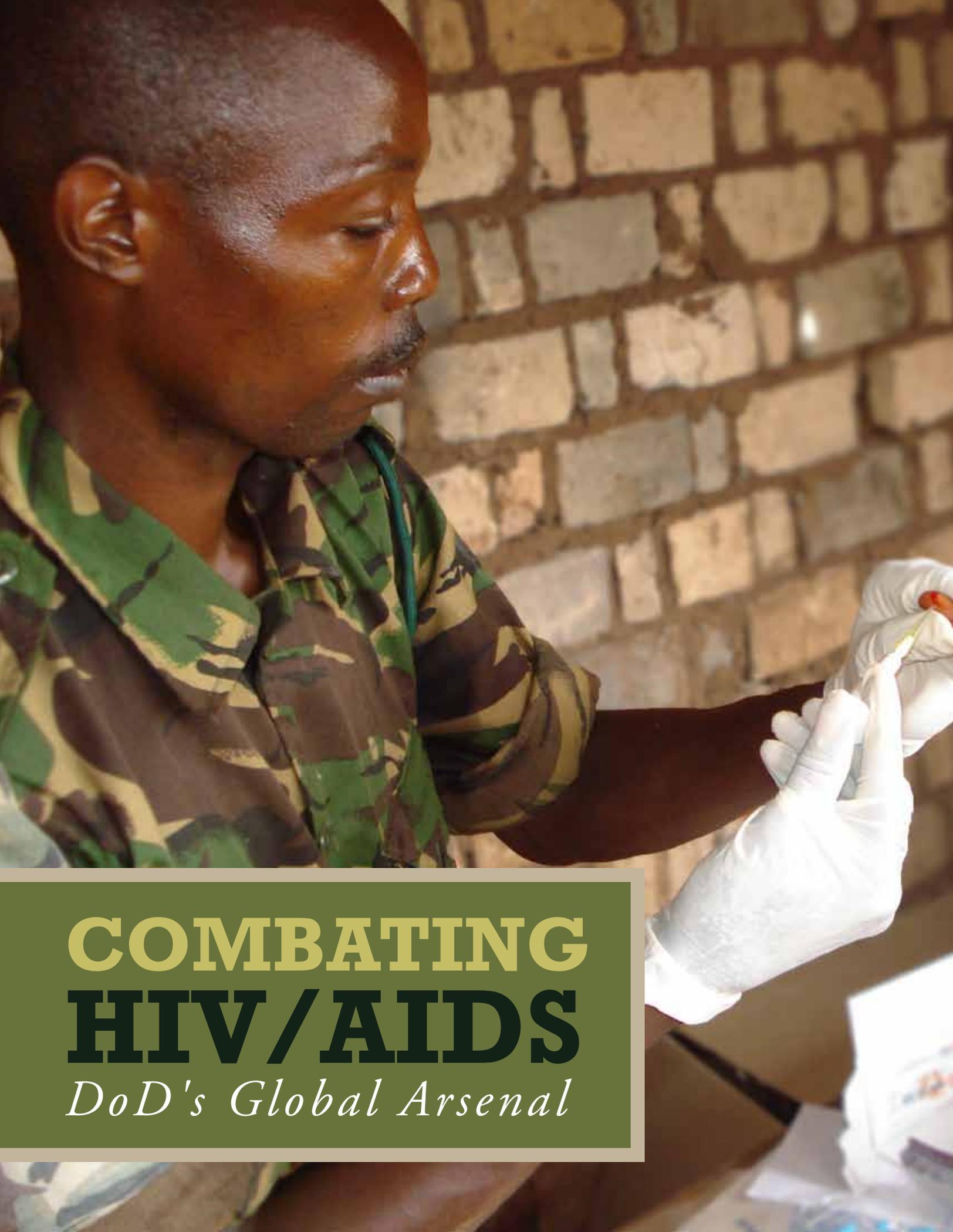


COMBATING HIV/AIDS

DoD's Global Arsenal

by Marisa Cole



**COMBATING
HIV/AIDS**

DoD's Global Arsenal

Testing for HIV/AIDS:

A member of the military administers an HIV rapid test in Kenya. DHAPP encourages military and civilian populations to be tested for HIV. Prevention, care, and treatment are the keys to combating HIV/AIDS. (Photo Courtesy DHAPP)

// Mozambique's civil war ended almost 20 years ago, but soldiers continue to die. However, this time the enemy is more difficult to fight against because it is invisible, silent and deadly. That new enemy is HIV/AIDS. //

These are the words of Antonio Langa, the U.S. Department of Defense HIV/AIDS Program Manager in Mozambique – one of 75 countries the DoD assists in the global fight against HIV/AIDS.

High HIV infection rates are both a national security issue for disease-burdened countries and a potentially destabilizing issue globally. Worldwide, AIDS directly impacts military readiness and kills many more people than any ongoing conflict.

The United States Department of Defense recognizes the global threat HIV/AIDS poses to U.S. national security – as well as that of the rest of the world – and is combating it through the efforts of the DoD HIV/AIDS Prevention Program and the U.S. Military HIV Research Program. Both programs receive funding from the U.S. President's Emergency Plan for AIDS Relief, and MHRP also receives a significant amount of funding from the Army and other federal agencies, such as the National Institutes of Health. DHAPP efforts focus on working with foreign

militaries to decrease the impact of the disease, benefiting not only foreign militaries but also their surrounding civilian populations. MHRP focuses on developing a safe, globally effective HIV vaccine to protect U.S. and foreign military members from infection and reduce the global impact of the disease.

DoD HIV/AIDS Prevention Program

DHAPP, based at the Naval Health Research Center in San Diego, Calif., is the DoD Executive Agent for the technical assistance, management and administrative support of the global HIV/AIDS prevention, care and treatment for foreign militaries. DHAPP administers funding, directly conducts training and provides technical assistance for focus countries and other bilateral countries. DHAPP oversees the contributions to PEPFAR of a range of DoD organizations, which fall under the various regional military commands, as well as specialized DoD institutions whose primary mission falls within the continental United States.

DHAPP's efforts grew out of the U.S. Leadership and Investment





Radio Broadcast: Antonio Langa (Left), Department of Defense HIV/AIDS Program program manager for Mozambique pictured here in the Mozambique Armed Forces Local Radio Station. The radio program is driven by the Mozambican military. (Photo Courtesy DHAPP)

Education: DHAPP-funded Testing and Counseling event in Rwanda, March 2008. (Photo Courtesy DHAPP)

for Fighting an Epidemic initiative, established in 2001 to combat HIV/AIDS in Africa and India. It now has implemented programs in 75 nations across Europe, Africa, Asia and Latin America – collaborating with a country’s military to support HIV prevention programs that address the special risk factors of military personnel, as well as treatment and care programs for HIV-infected individuals and their families.

“There can be a tendency to feel that the military might not need special attention,” says Dr. Anne Thomas, the DHAPP Director of Epidemiology and Surveillance. “The fact is that these

are special systems and they need a special approach. These soldiers are the protectors of nations, trained to believe that they are invincible. Helping them to deal with HIV really does take a special focus to help them support their unique risk perceptions and behaviors.”

To provide for the unique needs of the military population, DoD hires partner country nationals to facilitate interactions between the DHAPP technical experts located at its headquarters at the Naval Health Research Center in Point Loma, San Diego, and the partner country military HIV/AIDS program leaders.

// I would describe my role as one of an actor in action/thriller movie. If I don’t fight for money to fund [military] activities, then the program does not exist. //

These country nationals provide invaluable support because they are most familiar with the cultural and political backdrop of their individual nations and therefore provide a unique perspective and dedication to the programs.

One such individual is Antonio Langa, a Mozambican national working for the U.S. DoD. He is the main point of contact for DoD and PEPFAR activities directed to the Mozambican military – coordinating frequently with the

Mozambican minister of defense, the chief of the army and the director of national military health. His tasks range from discussing annual plans with the Mozambican military, to overseeing the training of military doctors and nurses, to implementing military prevalence and behavioral studies.

“I would describe my role as one of an actor in an action/thriller movie. I’m the beginning and end of whatever happens in benefit of the Mozambican military. If I don’t fight

for money to fund activities, then the program does not exist,” Langa says. One program that Langa has worked tirelessly to support is the Mozambique Armed Forces Local Radio Station Broadcast. The radio program informs soldiers about all aspects related to HIV/AIDS, such as prevention and risk reduction (male circumcision, condom use, partner reduction), diagnosis (counseling and testing), care (opportunistic infections, tuberculosis, sexually transmitted diseases), and treatment



DoD HIV/AIDS Programs

DoD is an implementing agency, along with seven other U.S. government agencies, supporting the PEPFAR mission.

- DHAPP, located at the Naval Health Research Center in Point Loma, San Diego, is the DoD executive agent for HIV/AIDS Prevention Support to Foreign Militaries.
- DHAPP engages in the international military cooperation of HIV/AIDS prevention, education, care, and treatment.
- MHRP is centered at the Division of Retrovirology, Walter Reed Army Institute of Research in Silver Spring, MD.
- MHRP is an international vaccine research program that successfully integrates HIV/AIDS prevention, care and treatment directly funded by PEPFAR.

(prevention of mother-to-child transmission, prevention with positives, anti-retroviral therapy). It includes live discussions with doctors and other relevant people with a telephone number that listeners can call to ask questions on the air.

“The idea for the radio program was inspired by the movie ‘Good Morning Vietnam,’ and I just used the same approach and converted it to focus on health issues, with an emphasis on HIV/AIDS,” Langa says.

According to Langa, the project presented logistical challenges, but because the Mozambican military took ownership of the station, it became a success. “The Mozambican military accepted the challenge and provided the space to install the station. They also identified young soldiers to be trained and operate the radio

equipment. The U.S. DoD brought in a team to train the Mozambicans on operating a military radio station – from gathering and processing information, to broadcasting, to monitoring and evaluation,” Langa says. “We found great acceptance of the project since it is operated by the Mozambican military themselves.”

The initial idea was to use a closed circuit radio (a DJ station and speakers installed in selected areas of the military base), but ultimately the project ended up as an FM radio station covering a much wider area around the military base, therefore reaching more people. Because the radio program also broadcasts to non-military areas, it covers other public health issues as well. “The surrounding community benefits from the radio program because they are able to discuss health issues of interest to them,” Langa says.

Community Education:

Community mobilization event in Uganda. Integrating host nation militaries and civilian populations is crucial in providing HIV/AIDS education. (Photo Courtesy DHAPP)



Langa describes his job as “challenging, rewarding, impacting people’s lives, requiring imagination and critical thinking to find solutions to problems.”

Understanding the Burden of Disease

Understanding the burden of disease is critical in formulating the appropriate disease response. To accomplish that, over the years DHAPP has deployed a series of HIV prevalence and risk surveys in many active duty foreign militaries – known

as the Seroprevalence and Behavioral Epidemiology Risk Survey, or SABERS. According to Thomas, who oversees the survey effort, “The purpose is two-fold: to determine HIV prevalence in foreign militaries and understand the behavioral risk factors.”

“The surveys support the militaries in determining the level of infection in their respective military populations,” Thomas says. “It gives them a better idea of their clinical needs and allows more informed planning. They also help define the behavioral risks,

which in turn help the militaries to fine tune their prevention programs. For example: Do they need to promote condom use? Are condoms not available? Do they have to make them more available? Or is there lack of education about different topics like basic transmission or treatment? Answering these questions leads to more tailored education programs.”

DHAPP is supporting survey work in Mozambique, Botswana, Swaziland, Ethiopia, Rwanda, Southern Sudan, Lesotho and Belize.



// Understanding the burden of disease is critical in formulating the appropriate disease response. //

Because every military is different, with varying internal capacities, DHAPP supports and works with the partner militaries to design the surveys and collect, enter and analyze the data. Thomas generally travels to each of the countries to “get the ball rolling.” She oversees and facilitates the work being done on the ground along with the DHAPP Epidemiology and Surveillance team and also helps form collaborative teams in each of the countries with the partner militaries, local U.S. Embassy, PEPFAR agencies and implementing partners.

She emphasizes that the work is not done alone. “Some countries have a lot of internal capacity and others don’t. Some can do the data entry and analysis and some countries we support with training and technical assistance. Implementing partners are usually brought in to help, as our staff is not big enough to support all of the ongoing surveys.”

DoD and other PEPFAR-funded U.S. government agencies support efforts such as SABERS as well as other types of capacity development to achieve and



Procession: MHRP programs in Africa are very involved with the local community. For HIV Vaccine Awareness Day they sponsored a marathon to increase community awareness and involvement. (Photo Courtesy MHRP)

Global Coverage: DHAPP and MHRP provide HIV/AIDS prevention, care and treatment programs and services in over 75 countries worldwide.

DoD Global Fight Against AIDS

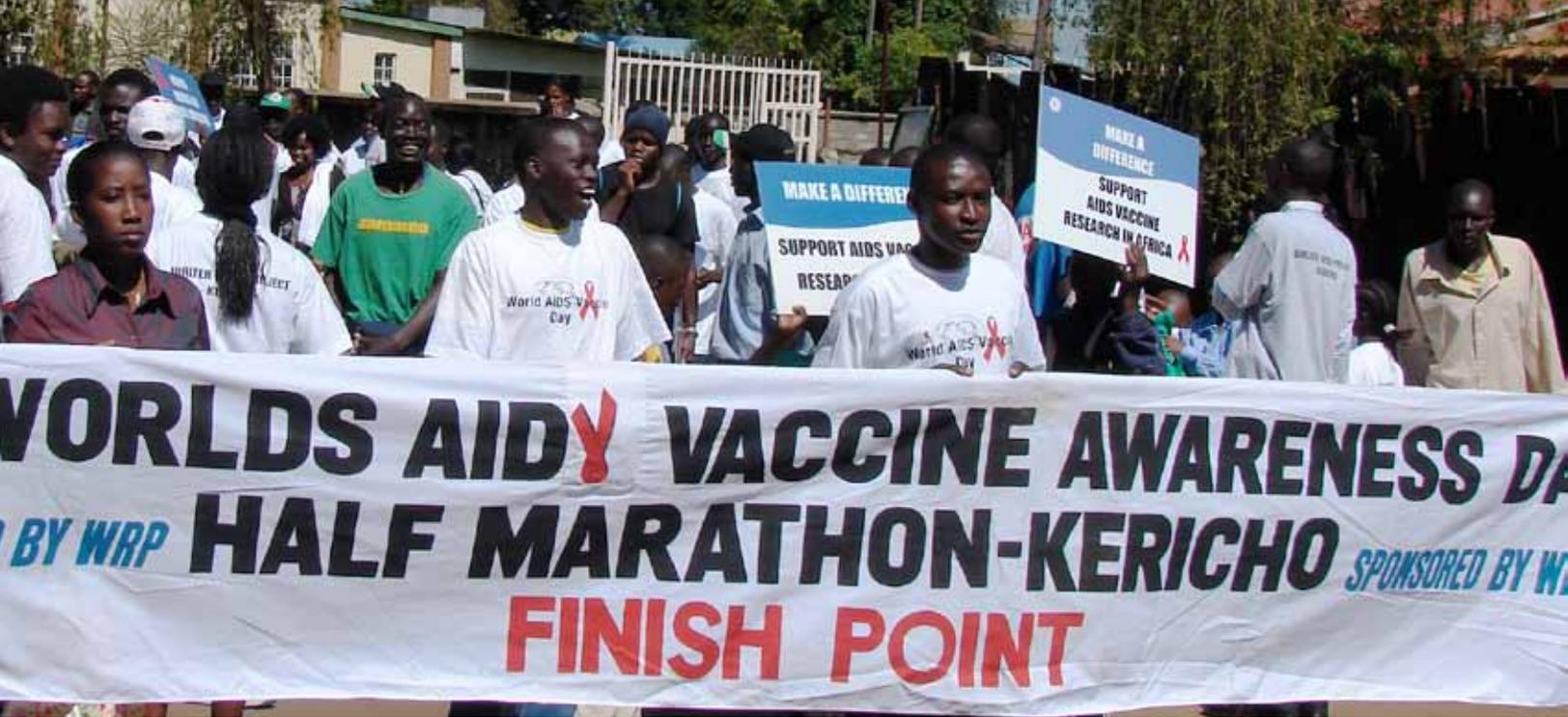
DoD supports the fight against HIV/AIDS in host militaries and civilian communities in 75 countries around the world through strategic communication, human capacity development, and program and policy development.

These activities are accomplished through:

- military-to-military assistance
- military-to-civilian assistance
- support to non-governmental organizations and universities
- collaboration with other U.S. government agencies in country

DoD and their in-country partners support:

- a wide range of HIV prevention programs
- infrastructure development and support (including laboratory, clinic and hospital facility renovation, equipment, and training)
- treatment and care activities



sustain success for years to come in the battle against HIV/AIDS. In doing so, they leverage each agency's technical expertise and strengths.

"We all try and use the best of what everyone is doing. Each country is unique in terms of what is available on the ground — at the U.S. government agency level and with the partner military," says Thomas.

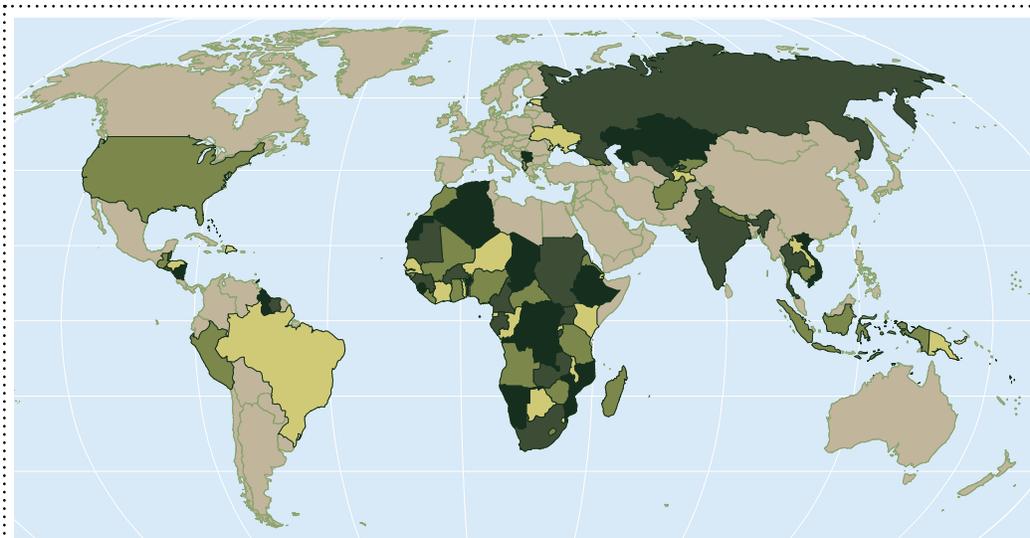
MHRP HIV Research

In 1986, Congress authorized the U.S. Military HIV Research Program at the Walter Reed Army Institute of Research to protect service personnel and serve the global community by reducing the risk of HIV. More than 20 years later, MHRP has become a leader in international HIV vaccine development efforts, with five research sites in Africa and Asia.

"Given the significant threat of HIV infection worldwide, an efficacious vaccine is urgently needed as part

of a broader prevention effort to help control the epidemic," notes Col. Nelson Michael, M.D., Ph.D., Director, Division of Retrovirology, WRAIR and Director, MHRP. The integration of PEPFAR-funded prevention, care and treatment services has helped MHRP build strong and trusting relationships with the communities in which research is conducted, while providing an ethical framework for the conduct of HIV clinical research.

"This extensive network, which includes state-of-the-art laboratories and clinical trial capabilities, allows MHRP to conduct targeted research in parts of the world hit hardest by the epidemic." Michael says. Michael notes that PEPFAR has had a tremendous impact in the last five years in Kenya, Tanzania, Uganda, Nigeria and Thailand, where MHRP operates. "When I first visited Uganda in 1999, every other stall at the roadside



Left to Right: Dr. Fred Sawe, MBChB, MMED, MHRP Kenyan Partner. Col. Nelson Michael, M.D., Ph.D., Director, Division of Retrovirology, WRAIR and Director MHRP. (Photos Courtesy DMHRP) . Dr. Anne Thomas, DHAPP Director of Epidemiology and Surveillance. Antonio Langa, DHAPP Program Manager in Mozambique. (Photos Courtesy DHAPP).



// An efficacious HIV vaccine is urgently needed given the significant threat of HIV infection worldwide. //

Major Accomplishments of MHRP:

*MHRP has made great strides forward toward finding an HIV vaccine.**

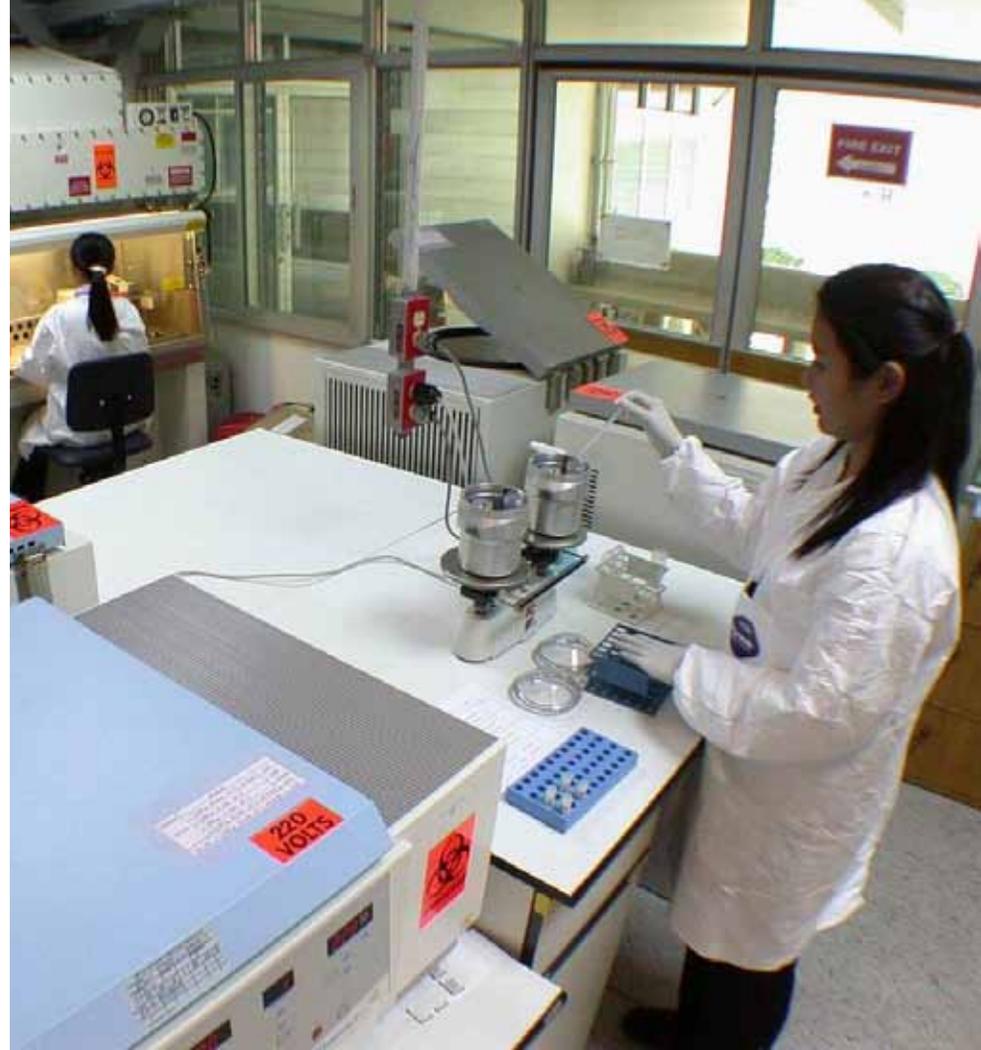
- Led first HIV vaccine trial to show that an investigational HIV vaccine regimen was safe and modestly effective at reducing the rate of HIV infection (RV144 in Thailand)
- First to identify heterosexual transmission of HIV-1
- Developed the initial HIV disease staging system
- Supported early diagnosis, comprehensive care and prevention and DoD policy development to retain Active Duty Soldiers
- Characterized more than half of the known HIV genetic subtypes
- Developed extensive clinical research infrastructure in East Africa and S.E. Asia
- Successfully implemented HIV Care and Treatment Programs in Africa (PEPFAR). In the four African countries MHRP has supported since 2004:
 - 72,000 have been enrolled on anti-retroviral therapy (ART)
 - 1.16 million have received voluntary counseling and testing, and received their results
 - 390,000 women have been helped through prevention of mother to child transmission efforts

markets had coffins for sale. They virtually lined the road. In contrast, on a recent trip I saw that only a few stalls were selling coffins. I'm convinced this is due to effective HIV prevention and treatment programs, which are funded through PEPFAR," he says.

HIV Vaccine Progress

MHRP led an Army-sponsored HIV vaccine trial that, for the first time, demonstrated modest effectiveness in preventing HIV infection, reducing the potential to contract HIV by about 31 percent. The study, RV 144, was conducted in Thailand and involved more than 16,000 Thai men and women. It was sponsored by the U.S. Army Surgeon General and conducted by the Thailand Ministry of Public Health. MHRP at the Walter Reed Army Institute of Research, U.S. Army Medical Research and Materiel Command, provided overall project leadership, and the U.S. Army Medical Component – Armed

*as of March 30, 2009



Forces Research Institute of Medical Sciences executed the trial in Thailand on behalf of the sponsor.

“This is the first evidence that a prime-boost HIV vaccine regimen may prevent infection and represents a significant step forward for vaccine research,” Michael says.

Michael has been with MHRP since 1989 and took over as director in 2006. He and his colleagues have been battling this evasive disease for more than 20 years together. “We were both humbled and gratified by this discovery that it was possible for an HIV vaccine to prevent HIV infection, albeit only modestly. We all have much more work to do, but the door is now open,” Michael says.

RV 144 was the largest HIV vaccine trial ever conducted, and trial volunteers were from a population at “community” risk for infection. “This was the first HIV vaccine efficacy study to be done in people at moderate risk for HIV infection largely as a result of heterosexual exposures,” notes Michael. “Much more research will be needed to understand how it protected some people from infection.”

Looking ahead, Michael and his team are hopeful. “This is the end of the beginning for HIV vaccine research. We have now shown that the 26 year global effort into developing HIV vaccines has not been in vain.”

Integrating Prevention, Care and Treatment

To accomplish the research mission at its sites in Africa, MHRP integrates HIV prevention, care and treatment, and vaccine development into one comprehensive initiative. Its philosophy is that a credible prevention program must accompany any vaccine research study and that, in resource-poor settings, medical benefits including comprehensive

Research: *Laboratories at the Armed Forces Research Institute of Medical Sciences in Thailand, where a recent clinical trial of a HIV vaccine combination showed modest success. MHRP has five state-of-the-art research laboratories on three continents that support international vaccine development efforts. (Photo Courtesy DHAPP)*



// This is the end of the beginning for HIV vaccine research. We have now shown that the 26 year global effort into developing HIV vaccines has not been in vain. //

HIV care and treatment must be available to the entire community, not just to research volunteers.

“In Africa, you have either been infected or affected by the disease. None of us have been left untouched by the epidemic,” says Dr. Fred Sawe, MBChB, MMED, who is one of MHRP’s partners in Kenya. HIV prevention and testing are critical to stemming the spread of the disease, and Sawe notes that the availability of anti-retroviral therapies has helped destigmatize HIV. “Suddenly people are willing to be tested because it is no longer a death sentence,” he says.

By the nature of its design and extensive local collaborations, the program not only provides treatment for individuals, but also helps develop a sustainable capacity among the health care facilities and local partners to serve long term community needs. In Kericho, Kenya, the program, known locally as the Walter Reed Project, has more than 180 employees—all but two of whom are Kenyans—who support its research and PEPFAR activities. “Our program is run by the sons and daughters of the community we are working in,” Sawe says. Since 2001, Sawe has been instrumental in building Kericho’s Prevention of Mother to Child Transmission of HIV infection program,

which has been the foundation for HIV care and treatment activities in this region of Kenya. The PMTCT program now includes 260 clinics, and the team has provided HIV counseling and testing to more than 260,000 women.

Without intervention, up to 40 percent of HIV-infected pregnant women will infect their babies, and the transmission rates in Africa are still too high because of lack of access to preventive services. According to Sawe, “We have the science, technology and resources to reduce MTCT of HIV to less than 2 percent; what is needed is the will to implement effective PMTCT interventions.” He added that the program has had a positive impact. “To be able to tell a pregnant HIV-infected woman that with interventions she can live to become a grandmother to the children of her unborn baby was beyond our imaginations a few years ago,” Sawe says.

Moving Forward in the Global Fight Against HIV/AIDS

While the programs and initiatives profiled here merely scratch the surface of the impact DoD is having in the countries where it is operating, they prove that DoD’s pursuit of HIV/AIDS prevention, care and treatment activities with foreign militaries is critical in combating the disease globally. The disease burden has



Group: *DHAPP Seroprevalence and Behavioral Epidemiology Risk Survey, or SABERS Survey Team in 2006, for HIV prevalence and behavioral risk study. DHAPP supports and works with the partner militaries to design the surveys and collect, enter and analyze the data.*



clear ties to security interests, regional stability, humanitarian concerns, counterterrorism and peacekeeping efforts because of its destabilizing effect in developing societies.

With the U.S. government's commitment of additional PEPFAR funding through 2013, combating HIV/AIDS remains a U.S. priority. DoD, as a key implementing agency of PEPFAR, is ensuring that enough people are trained, the necessary research is being done and the right systems are in place to guarantee strong human and organizational capacity for future generations. In the long run, the best programs are run by partner countries. Working together, these programs can help contain the global HIV/AIDS threat to public health and national security in the United States and worldwide.

Lisa Reilly, MHRP Director of Communications, contributed to this article.

PEPFAR

In 2003 President Bush launched the U.S. President's Emergency Plan for AIDS Relief to combat global HIV/AIDS with \$15 billion in funding - the largest commitment by any nation to combat a single disease in history.

On July 30, 2008 President Bush expanded commitment to PEPFAR for five additional years, from 2009 through 2013, with \$48 billion to address HIV/AIDS, TB and malaria.

The PEPFAR mission is implemented through the unified efforts of seven U.S. Government agencies:

- Department of State
- U.S. Agency for International Development
- Department of Commerce
- Department of Labor
- Department of Health and Human Services
- Peace Corps
- Department of Defense



MHS Profiles
MILITARY HEALTH SYSTEM

coming next...



**Paws for
Effect**

