**BACKGROUND**

**Introduction/General Information**

Ethiopia's population is estimated to be 65 to 68 million, with an average life expectancy of approximately 44 years; the latter has been significantly affected by the HIV/AIDS epidemic. Amharic and English are the predominant languages, with a literacy rate of approximately 36% for adults (people over age 15). Literacy is disproportionately distributed between men and women. The Ethiopian economy is primarily based in agriculture with agricultural production comprising half of the gross national product and employing 80% of the workforce. Annual per capita income in Ethiopia ranges from $100 to $700.

**Country HIV/AIDS Statistics and Risk Factors**

HIV/AIDS prevalence estimates range from 6.4 to 11% of the Ethiopian population, and estimates of the number of people believed to be living with HIV range from 2.1 to 3 million. Identified risk factors include blood transfusions, unsafe injections, perinatal transmission, and unprotected sexual contact. Eighty-eight percent of all transmissions are acquired through heterosexual contact, and 87% of new infections are the result of "multiple sex-partnering" (i.e., non-monogamous relationships).

**Military HIV/AIDS Information**

The National Defense Force of Ethiopia (NDFE) is estimated at approximately 250,000. Prevalence rates among military personnel are not available since Ethiopia has no reliable HIV/AIDS surveillance data for the military.
PROPOSED PROGRAM

In February 2001 the NDFE submitted a proposal to DHAPP that was designed to:

- Reduce the rate of HIV and sexually transmitted infection (STI),
- Increase condom use by soldiers,
- Create a system to provide healthcare and psychosocial support to HIV-positive NDFE personnel and their dependents,
- Establish an HIV/AIDS/STI information center at military headquarters and satellite facilities,
- Establish a program to provide voluntary counseling and testing (VCT) within the NDFE, and
- Train healthcare workers in universal precautions and HIV case management.

DHAPP funds sponsored an HIV/AIDS public awareness campaign in Ethiopia in response to a country proposal.

PROGRAM RESPONSE

Military-to–Military

DHAPP staff traveled to Addis Ababa in August 2002 to assist with further development of the NDFE FY03 plan and to acclimate a US military and clinical consultant team to the HIV environment in Ethiopia. The 2003 effort was discussed and priorities were established.

Contractor-Based Assistance

In addition to the assistance described above, Ethiopia is the recipient of aid from an external contractor funded by DHAPP. Specifically, the Johns Hopkins University, Baltimore, Maryland, was awarded a contract in November 2001 to develop and implement a voluntary counseling and testing (VCT) program in 3 military hospitals and to train a cadre of NDFE personnel in teaching others how to conduct HIV screening and counseling, thereby providing VCT services on a force-wide basis.

In order to develop the VCT program for the NDFE, Johns Hopkins University modified a program already in use in the Antenatal Clinic at the Tikus Anbessa Hospital in Addis Ababa. The program was adapted for use in the Armed Forces General and Bella Hospitals in Addis Ababa, and the Air Force Hospital in Debretie, both of which provide healthcare to NDFE personnel and their dependents.

During the first phase of this effort, teams consisting of a site nurse coordinator, 2 counselors, and a lab technician received training in HIV screening, as well as pretest and posttest counseling based upon VCT training materials that were developed specifically for the project. In the second phase, the teams of trained staff provided a series of seminars, teaching VCT to 60-90 personnel from the 3 project hospitals.

Johns Hopkins University also screened 5% of the active duty personnel based in and around Addis Ababa for HIV using the VCT program it developed. HIV status and demographic data were entered in an electronic database for future analysis, with confidentiality of participants assured.

In January 2003, Johns Hopkins University was awarded a second contract to build upon the program developed over the previous year by opening 5 additional VCT centers for NDFE personnel. Coupled with the site
expansion, Johns Hopkins also plans to evaluate the effectiveness of the VCT program created in 2002 and to update all VCT training course materials.

Finally, Johns Hopkins plans to introduce a program to provide TB prevention therapy to persons infected with HIV. The pool of infected persons will be identified through NDFE VCT clinics.

**Clinical Provider Training**

DHAPP funded a variety of programs to enhance the HIV/AIDS management skills of NDFE physicians as follows:

- Six NDFE physicians were sent to receive training from the *Study Tour to Royal Thai Armed Forces Research Institute of Medical Sciences*, in Bangkok Thailand.
- Two NDFE physicians attended the XIV International AIDS Conference in Barcelona, Spain.
- In January 2003, 3 NDFE physicians completed the *Military International HIV Training Program* course in San Diego, California.

Supporting troops in HIV prevention protects accompanying family members.

The San Diego-based program included both didactic and hands-on experience in clinical aspects of HIV treatment and management, integrated military response/care, social marketing of public health, and training in epidemiology methods. Other topics covered in the curriculum included methods for reducing the risk of HIV infection due to occupational exposure, post exposure prophylaxis, and clinical management of opportunistic infections among persons infected with HIV.

![Ethiopian physicians received in-country training in HIV management.](image)

Subsequent to the January 2003 training, two infectious disease specialists from the Naval Medical Center, San Diego, and University of California, San Diego, traveled to Addis Ababa to conduct a 3-month mini-residency training program with NDFE physicians. The objectives of this visit were to:

- Assess infection control practices in military hospitals,
- Conduct a study of HIV occupational exposure,
- Initiate an HIV post exposure prophylaxis program (PEP) for military healthcare providers, and
- Provide lectures on HIV-related topics to include virology, epidemiology, immunology, antiretroviral therapy (ARV) in resource-limited settings, ARV toxicities, opportunistic infections, and dermatologic and neurological complications.

Infection control policies were developed and are undergoing final review. Critically needed supplies and equipment were also identified and ordered, along with an HIV PEP for high-risk occupational exposure, which should be in place by September 2003.
Interoperability

The Centers for Disease Control and Prevention is supporting VCT programs that Johns Hopkins University established under contract to DHAPP.

PROGRAM IMPACT

Master Trainers and Peer Educators

DHAPP prepared 5 VCT instructors who are approved to teach VCT methods; these VCT instructors trained 100 VCT counselors. Additionally, 24 master educators, and 198 peer educators have been trained to conduct HIV/AIDS prevention education sessions.

Number of Troops Trained

To date, 6,554 troops have received specific training and over 25,000 have attended seminars and dramas presenting HIV/AIDS awareness and prevention information.

Potential Number of Troops Affected

DHAPP-sponsored programs affect 250,000 troops.

Voluntary Counseling and Testing (VCT)

Three VCT centers were opened at Armed Forces General, Bella, and Air Force Hospitals. To date, VCT counselors have screened 2,969 troops for HIV.

Laboratory Capability/Infrastructure

Twenty laboratory technicians were trained to perform rapid screening tests for HIV. In addition DHAPP funds were used to purchase a small storage freezer to enable screening for HIV.

Mass Awareness

DHAPP supported establishing a drama troupe that conducted 12 shows viewed by approximately 25,000 troops and their family members.

Drama troops spread the HIV/AIDS prevention message to NDFE troops in garrisons throughout the country.