



Health Surveillance Research in Foreign Military Populations

The Naval Health Research Center and the U.S. Department of Defense HIV/AIDS Prevention Program

The Naval Health Research Center (NHRC) conducts research to improve the health and readiness of a worldwide deployed force of over 725,000 active-duty and reserve Sailors and Marines. Through the study Health Surveillance Research in Foreign Military Populations, RTI International is assisting NHRC staff of the U.S. Department of Defense HIV/AIDS Prevention Program (DHAPP) in developing and implementing an HIV Behavioral Health Surveillance Program for the armed forces in Mozambique and Uganda.

Background and Significance

Due in part to their youth, sexual activity, and mobility, most African military and security forces have high prevalence rates of HIV infection, generally 20% and in some instances even higher. As rates of infection among military personnel increase, the armed forces face an increasing diversion of resources from critical military operations to health care. Thus, the escalating rates of HIV infection in the military can pose a serious threat to both national and international security. By monitoring HIV prevalence rates and risk factors and behaviors associated with HIV rates among military personnel, we can greatly reduce this threat. Behavioral and serological surveillance in the military is important in determining the burden of the problem and in planning, implementing, and evaluating targeted prevention programs, clinical services, and drug provision.



Objectives

The objectives of this study are to assist DHAPP nations in

- obtaining accurate data on the magnitude of HIV prevalence in the military;
- obtaining information on knowledge, attitudes, and behavioral indicators related to HIV/AIDS and other sexually transmitted infections; and
- obtaining accurate information on program indicators.

The larger goal of RTI's support to NHRC and DHAPP nations is to facilitate sustained surveillance programs.

(continued)



RTI's Approach

Health Surveillance Research in Foreign Military Populations is a cross-sectional HIV/AIDS serobehavioral surveillance study with a target population of male and female soldiers aged 18 or older. The military's divisions contributed proportionately toward the sample. RTI is training foreign military organizations in administering personal and/or group interviews in paper and pencil format and collecting blood samples for linked confidential HIV testing.

The survey instrument is an adapted version of the AIDS Indicator Questionnaire from the national serosurveys in Mozambique and Uganda. Trained field staff draw the blood samples and conduct field HIV tests using rapid test kits. Participants are provided with pre- and post-test counseling and referrals for further care if they test HIV positive.

Trained staff conduct HIV tests on a sample of each participant's blood using a commercial brand HIV rapid test kit. All positive results are confirmed with a second HIV rapid test kit brand. In Uganda, any differences in the results from these two tests are resolved using a third HIV rapid test kit brand. Dry blood samples are collected using filter paper and are sent to the military hospital labs for storage. Where in-country laboratory facilities allow, serum is separated from the remaining sample and sent to the Centers for Disease Control and Prevention (CDC) lab in Uganda for ELISA confirmation and CD4 counts before the samples are stored. For quality control, all positive specimens are retested in the lab using the same algorithm; specimens with discordant results are resolved by repeating the algorithm.

In-country personnel perform data editing and entry, and an RTI programmer performs technical assistance and training. For in-country data entry, RTI developed a data entry system built using Epi Info™ that has a double key entry system that checks the range, structure, and internal consistency of data. At the local survey data management unit, data processing personnel register and track questionnaires and code open-ended responses. Data from these studies are then analyzed and used by military health officials to develop interventions to reduce the incidence of HIV/AIDS.

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