

GLOBAL INITIATIVES IN LABORATORY IMPROVEMENT

WHAT IS THE PUBLIC HEALTH ISSUE?

The Global AIDS Program (GAP) supports 25 countries in Asia, Africa, South America, and the Caribbean, which have a substantial burden of HIV infection, tuberculosis (TB), and other diseases. While most countries have a unique infrastructure of laboratories that provide support for disease surveillance, prevention, and care activities, in other countries, this laboratory infrastructure may be lacking or non-existent. Programs to ensure the technical and managerial training for laboratory staff are needed. GAP countries have expressed concerns over having qualified personnel, adequate laboratory training, technology, resources, and other tools to maintain adequate laboratory testing services.

WHAT HAS CDC ACCOMPLISHED?

CDC works closely with partners to strengthen the laboratory systems, implement comprehensive laboratory quality assurance programs, and conduct laboratory training in GAP countries. Strengthening the laboratory systems requires conducting in-depth assessments and assuring testing capability and capacity at the national and international levels. A key component is integrating quality laboratory services across prevention and care programs. Additionally, laboratory training is provided through a multifaceted approach of developing training materials, linking GAP and U. S. laboratories, planning, facilitating, and conducting laboratory training courses, as well as enhancing in-country training capacity.

CDC is working with partners to provide leadership for laboratory training, as well as developing and implementing quality systems for HIV/sexually transmitted infections/opportunistic infections testing services supporting surveillance, prevention, and care activities in India, Asia, and 14 Sub-Sahara African countries. Activities include assessments and ongoing technical support to develop laboratory systems and quality assurance programs in Botswana, Cambodia, the Caribbean (the Caribbean Epidemiology Center), Ethiopia, Guyana, India (Tamil Nadu state), Malawi, Tanzania, Thailand, Zambia, and Zimbabwe

As a major regional initiative, CDC has developed a new Laboratory Quality systems framework that addresses basic infrastructure for all laboratory testing and provides practical materials for implementation. CDC has also worked with partners, such as the World Health Organization and the Association of Public Health Laboratories, to provide leadership in creating training materials and quality assurance guidelines for TB and HIV. These efforts have garnered international recognition and are distributed worldwide.

Examples of Program in Action

Plans and activities have been developed and initiated in many African and Asian countries to demonstrate the value of a laboratory systems approach that integrates service, quality assurance, and the healthcare system. For example, CDC

- Presented a Laboratory Quality Systems workshop in Botswana for 67 delegates from 16 African countries.
- Convened and presented an Atlanta conference, "Update on GAP Technical Strategies and Approaches for Lab Support."
- Conducted a workshop on integrated disease laboratory testing in Ethiopia.
- Published and distributed *Guidelines for Appropriate Evaluation of HIV Testing Technologies* in Africa.
- Provided comprehensive technical support to the Zimbabwe National Quality Assurance Program.
- Produced a training videotape "Performing Rapid HIV Tests," training aides and posters for Acid Fast Bacillus Microscopy and Rapid HIV tests.

WHAT ARE THE NEXT STEPS?

Successful implementation of the laboratory systems in each of the GAP countries will require continued coordination, communication, and interaction between the ministries of health, public health laboratories, regional and local public health laboratories, and each of the constituents that provide testing of public health importance.

For additional information on this or other CDC programs, visit www.cdc.gov/program

January 2004