

Group B. Basic Laboratory Support for HIV Care and Prevention Services (Hematology, Chemistries) and Information Technologies

General Recommendations

- Advocate for resources to expand laboratory technical assistance staff
- Develop and implement national laboratory quality system plans (based on the recent Botswana Conference recommendation)
- Create a laboratory emergency response team to focus on trouble-shooting
- Develop a self-evaluation plan and an annual certification process
- Promote laboratorians as an integral part of the in-country HIV ARV team
- Procure necessary reagents
- Review basic hematology guidelines
- Identify possible analyzers:
 - SYSMEX (hematology)
 - ABX (chemistry)
 - Cobas Mira (chemistry)
- Identify basic hematology training courses
- Link with private companies for training
- Determine maintenance contracts
- Look at volume of tests that will be done; consider possibility of group testing and sample volume

Levels of Laboratory System: Tests and Services Performed

- Central (national reference) Laboratory
 - Hgb
 - Pregnancy Test
 - Urine Test
 - CBC and Differential
 - Platelet count
 - Coagulation
 - ALT
 - Creatinine
 - K+
 - Full Serum Chemistries
- Intermediate (regional) Laboratory
 - Hgb
 - Pregnancy Test
 - Urine Test
 - CBC and Differential
 - Platelet
 - Coagulation
 - ALT
 - Creatinine
 - K+
 - Full Serum Chemistries

- Peripheral (district) Laboratory
 - Hgb
 - Pregnancy Test
 - Urine Test
 - CBC and Differential
 - ALT
 - Creatinine
 - K+
- Remote peripheral (health center, point-of-service) laboratory
 - Hgb
 - Pregnancy Test
 - Urine

First Year Plan

- Target the major laboratories identified in the national plans where ARV treatment is ongoing or planned
- Ensure laboratory capacity for hematology and chemistry
 - Develop teams to support laboratory program activities
 - Review prior assessments
 - Develop checklists
 - Personal competencies
 - Infrastructure
- Create action plans
 - Streamline and strengthen logistic and supply systems
 - Identify equipment, supplies, etc.
 - Have each country develop a plan to transfer tests to the provincial laboratories and selected health centers within four years

Second Year+ Plan

- Evaluate what was done in the first year and expand plan to additional sites
- Work to transfer testing and technologies to the next lower level of laboratories, where possible
- Complete assessments in remaining laboratories
- Complete and implement the action plan from the first year

Critical tools and products

- Headquarters (available for Emergency Plan and other GAP countries)
 - Develop a list of recommended tests that CDC would provide TA to support
 - Determine list of equipment and supplies, including reagents with costing
 - Recommend standardized simple paper forms
 - Identify staff to provide TA
- Country level
 - Each country should develop a national laboratory quality system
 - Develop national guidelines for national laboratory practice and safety

- Support capacity for evaluation of technologies and equipment to inform decision makers

Human Resources

- Establish and maintain laboratory leadership
 - Focus on keeping laboratory leadership intact at the national and provincial levels
 - Support key leaders to attend professional conferences and training courses
 - Improve working environment
 - Work with WHO to develop laboratory certification process
 - Promote laboratories as an integral part of the care team
- Determine appropriate working conditions that can help recruit and maintain/retain personnel
 - Look at TB and hematology models with low turnover rates
 - Strengthen laboratory consensus building and advocacy
- Develop fellowship programs to support US government capacity and provide additional laboratory pool to meet partner staffing

Training

- Identify/develop resources for training
 - Manufacturers who will go in-country and provide training
 - Training programs for quality assurance
 - Training programs for clinical practices
 - Training programs for other appropriate staff (e.g., engineers, maintenance, service)
- Strengthen in-service institutions in-country
- Provide training to trainers who will be working in GAP countries to familiarize them with THE EMERGENCY PLAN and recommended practices