Overview of the East Africa Public Health Laboratory Networking Project:

A Regional Approach to Lab Strengthening and TB Control
High rates of TB & TB/HIV in East Africa with countries facing similar challenges to diagnosis and treatment

Large pipeline of new diagnostic tools presents an opportunity to enhance clinical care for TB/HIV co-infected persons and those suffering from MDR-TB

Growing recognition of importance of laboratories which are key for accurate diagnosis, patient monitoring, confirming treatment success, monitoring growing problem of drug resistance, and disease outbreak investigations
Addresses “both” a key weakness in health systems and a critical gap in TB control

Uses a unique regional approach and attractive financing arrangements

Supports regional cross country learning and South-South collaboration which is essential for generating evidence based approaches

Promotes partnerships which are critical to leverage technical and financial support
LEADERSHIP: Countries taking lead in promoting innovations and sharing experiences

PARTNERSHIP: Synergy with key actors (GLI/WHO, CDC, TB Union, UNITAID, USAID/KNCV, ASLM, AMREF)

PROMOTING EXCELLENCE: Adhering to regional standards established by WHO and CDC

SHARED VISION AND COLLECTIVE ACTION
TO PREVENT AND CONTROL THE SPREAD OF COMMUNICABLE DISEASES IN THE EASTERN AFRICA REGION BY RAISING QUALITY OF DIAGNOSTIC AND SURVEILLANCE SERVICES
The US$65 million project aims to establish a network of efficient, high quality, accessible public health laboratories for the diagnosis and surveillance of TB and other communicable diseases.
SATELLITE LABORATORIES LOCATED IN BORDER AREAS WITH HIGH RISK OF DISEASE OUTBREAKS

East Africa PH Lab Network
PROJECT COMPONENTS

- REGIONAL DIAGNOSTIC AND SURVEILLANCE CAPACITY

- Support 25 satellite laboratories in cross border areas of Kenya, Rwanda, Tanzania and Uganda (and Burundi shortly) to provide improved access to specialized diagnostic testing for vulnerable groups (e.g. migrants, refugees)

- Provide reference services and conduct drug resistance monitoring and support establishment of a Supranational Regional Laboratory in Eastern Africa

- Strengthen public health lab capacity to confirm pathogens and collaborate in investigations of disease outbreaks with neighboring countries and improve case notification and data sharing across the sub-region
PROJECT COMPONENTS

- JOINT TRAINING & CAPACITY BUILDING
  - Provide specialized training (e.g. new technologies; field epidemiology), including laboratory attachments and regional exchanges
  - Support capacity building in areas of lab management (certificate program; mentorship)

- JOINT OPERATIONAL RESEARCH AND KNOWLEDGE SHARING
  - Evaluate effectiveness of new diagnostic technologies at programmatic level to inform public policy
  - Assess regional approach to communicable diseases
  - Facilitate knowledge sharing among network members and other regional partners
Thematic Responsibilities for Learning and Knowledge Sharing

UGANDA
Lab Networking

KENYA
O.R. Surveillance

TANZANIA
Training

BURUNDI
PBF

RWANDA
ICT/PBF MDR-TB

ECSA
In collaboration with EAC

Empowering clients through access to knowledge
Operational Research: Kenya
New TB Diagnostics

• **Generate evidence** for early and increased detection and proper management of TB patients which will be critical for placing patients on treatment

• **Avoid waste of resources** associated with empiric management of smear negative TB

• Contribute to **reduction in transmission, morbidity and mortality**

• Produce **data that will contribute to policy change in use of TB diagnostics and patient management**
Operational Research Agenda: New TB Diagnostics

• What is the impact of introducing new TB diagnostics on the management of TB and on patient outcomes?

• What is the performance of various combinations of new TB diagnostic tests?
  – Gene Xpert; OSSM and Gene Xpert; OSSM, Gene Xpert, MGIT

• What is the best-fit laboratory algorithm?
**ICT Innovations: Rwanda**

- **Improved communications, knowledge sharing, and information exchange** among the participating countries and regional institutions
  - Use of **mobile phone technologies** to alert neighboring countries during disease outbreaks and/or inform patients about laboratory exams

- **Strengthened ICT skills for laboratory technicians** to improve their productivity

- **Enhanced laboratory practices and managerial capacities** through multimedia training courses for lab staff in remote areas
Training & Capacity Building: Tanzania

• Establish Tanzania’s Quality Assurance & Training Center as a **regional hub for training**

• Develop **database** of pre and in-service training

• Support **mentorships & study attachments** to provide hands on training & practical experience
Lab Networking & Accreditation: Uganda

• Setting **lab network standards** & targets and assisting weaker partners to achieve higher results

• Conducting joint **peer review** mechanisms; sharing EQA panels

• Supporting **lab accreditation** using WHO’s 5-step process for satellite laboratories to reach a 2-star status (***)

• Facilitating establishment of a **supranational TB laboratory** to promote specialization
ECSA-HC AND EAC

- ECSA-HC is: (i) facilitating knowledge sharing, (ii) documenting good practices, and (iii) identifying policy implications

- The EAC is leading regional surveillance efforts, including production of East African Integrated Disease Surveillance Bulletin
Several partners have contributed actively to the design, development, and execution of the project.

Parallel grant financing for specialized TB diagnostics has been secured from the International Drug Purchase Facility (UNITAID) through EXPAND-TB.

Private sector potential needs to be further explored (public/private partnership study).
KEY ACHIEVEMENTS

✓ Conducting peer assessments of all satellite laboratories using regional standards (WHO/AFRO checklist/Step-wise Approach towards Accreditation, including training and certifying regional assessors)

✓ Linking lab improvements plans to accreditation and exploring use of RBF for laboratories

✓ Developing multi-country operational research proposals to strengthen evidence base

---Strong leadership and commitment to innovation---
Strengthening Laboratory Management Towards Accreditation: Preliminary Results from Peer Assessment of Satellite Laboratories
KEY ACHIEVEMENTS

✓ Revitalizing EAIDSNet; conducting disease outbreak simulations; and initiating discussions on a web based mobile phone technology for facilitating the exchange of epidemiological data

✓ Conducting joint training for laboratory management and developing e-learning modules

✓ Developing common ICT assessment tools & initiating design of web-portal

✓ Bringing Burundi on board with collaboration of EAC, ECSA-HC and Kenya
Challenges of a Regional Project

- Different size of countries, variable conditions and capacities – what is feasible in a smaller country may not be in a larger one

- If a country lags behind it can affect overall performance and impact of the operation

- Practical modalities of working regionally -- Rendering functional Technical Working Groups; building institutional capacities of regional bodies

- Coordination is a huge challenge at all levels; trade off between consensus building vs moving ahead expeditiously