

Strengthened Laboratories Improve Disease Surveillance in the East African Community

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Background

The East Africa Public Health Laboratory Networking Project was approved by the World Bank in 2010. The project implements programs in line with the requirements of the East African Integrated Disease Surveillance Network (EAIDSNet) and the International Health Regulations (IHR 2005).

Aim:

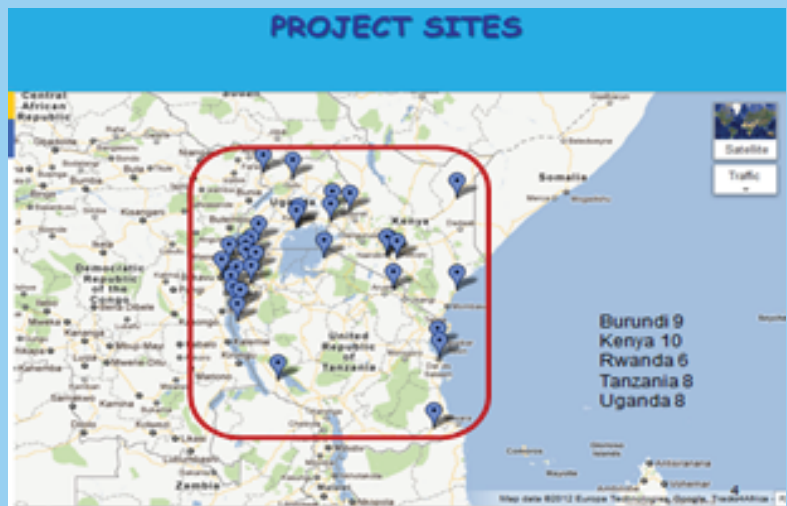
To establish a network of efficient, high quality, accessible public health laboratories for the diagnosis and surveillance of TB and other communicable diseases

Objectives

1. Strengthen capacity to diagnose communicable diseases of public health importance and share information to mount an effective regional response
2. Support joint training and capacity building to expand the pool of qualified laboratory technicians and other health workers
3. Support operational research and promote knowledge sharing to enhance the evidence base for the program

Processes of the project

i. Supports renovation/construction of central public health laboratories and 36 public and private laboratories situated in trans-boundary regions;



ii. Provides modern equipment and laboratory reagents to enable performance of novel diagnostic tests



iii. Supports enrollment of the satellite laboratories in the Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLPTA), a model of Continuous Quality Improvement (CQI) Process

iv. Supports establishment of multi-disciplinary cross-border One Health surveillance teams in defined cross-border surveillance zones to bolster cross-border disease surveillance and control



vi. Supports platforms for sharing regional print and electronic data



v. Supports simulation exercises of health emergencies due to human and animal diseases to test the levels of emergency preparedness and also build capacity for response to health emergencies, in the EAC region



vii. The project supports training in disease surveillance, novel diagnostic lab techniques and specimen handling.



viii. An operational research program was initiated; this has provided evidence in East Africa:

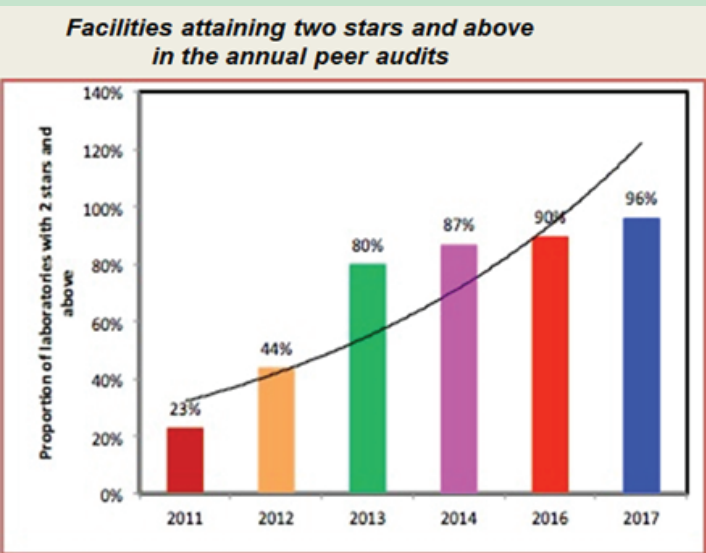
- a. Operational strengths and shortfalls of the GenExpert technology in the detection of TB and MDR TB
- b. Nature of emerging resistance to recommended anti-malarial medicines
- c. Nature of drug resistance of selected enteric pathogens prevailing in the region

ix. Mapping of antimicrobial resistance (AMR);

x. Established improved capacity to conduct lab-based AMR and cancer surveillance.

Outcomes

i. Improved quality of laboratory performance
The quality of laboratory performance has improved with 96% attaining =>2 SLIPTA stars; 63% =>3stars in 2017 compared to 23% with 2 stars in 2011;



Four (4) laboratories have been accredited using ISO15189 standards; One of them has been accredited to Supranational TB Reference Laboratory (SRL) status;



- ii. 956 multi-drug resistant TB cases identified through the application of the novel GeneExpert technology;
- iii. Beneficiaries of the labs increased from 947,207 in 2011 to over 4,038,178 in 2016;
- iv. 22 joint One Health cross-border disease surveillance review/outbreak investigation missions helped to contain several disease outbreaks;
- v. The proportion of outbreaks confirmed by laboratory testing increased from 10-20% in 2010 to 100% in 2016.
- vi. Over 13,000 personnel have been trained in various proficiencies

Conclusion/Lessons Learned/ Policy Recommendation

Laboratory networks have the potential to bolster surveillance and disease outbreak response efforts in cross-border areas. Laboratory improvements could form an efficient gateway to enhanced regional disease control efforts.