Cutting Edge Diagnosis for
Tuberculosis Launched in Kenya
(Gene-Xpert Technology to markedly reduce time to confirm TB diagnosis)

The Ministry of Public Health and Sanitation through the Department of Disease Prevention and Control launched a Gene-Xpert system to be used in laboratories across the country. The launch was held at the National Public Health Laboratory, Nairobi, on Friday, March 30th, 2012. The system is a diagnostic tool that uses Xpert tests to diagnose tuberculosis in as little as two hours. The system also provides rapid results that can be used to reduce the time it takes to confirm a TB diagnosis.

The Gene-Xpert system uses XpertMetus cartridges which allow the generation of diagnostic results in just two hours. The cartridges are easy to use and can be used in laboratories across the country.

Speaking during the launch, the Director of Public Health and Sanitation Dr. Stash said effective diagnostic services were essential to the health care system. He added that laboratory services play a critical role in providing information for disease management and surveillance. He also said the launch of the Xpert system in Kenya is a major milestone in the fight against tuberculosis.

The World Bank, through the East Africa Public Health Laboratory Networking Project (EAPHLNP), has supported the implementation of the Gene-Xpert system in Kenya. The project has invested over $44 million in the development of the Gene-Xpert system, which has been used in laboratories across the country.

The launch of the Xpert system in Kenya is a significant step in the fight against tuberculosis. The system will help to reduce the time it takes to confirm a TB diagnosis, which is critical in the treatment and prevention of the disease.
Outline

Background

Key Achievements

Gene-Xpert Update
High rates of TB & TB/HIV (hbdc) in East Africa with countries facing similar challenges to diagnosis and treatment

A 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 clinical care, monitoring drug resistance, and disease outbreak investigations.

To prevent and control the spread of TB and other...
STRATEGIC OBJECTIVES

Strengthening diagnostic and surveillance capacity, promoting innovations, and specialization in service delivery (NRL, SRL)

Supporting training and capacity building for laboratory professionals, including mentorships, pre-service & continuing professional development

Fostering knowledge sharing and South-South collaboration and promoting evidence-based approaches

Participating countries: Kenya, Rwanda, Tanzania, Uganda, with Burundi
UGANDA
Lab networking

KENYA
O.R. surveillance

TANZANIA
Training

RWANDA
ICT/PBF MDR-TB

BURUNDI
PBF Co-Rwanda

ECSA/EAC
Conducting peer assessments of 31 satellite laboratories in 5 countries using SLIPTA

Linking lab improvements and lab plans to accreditation and piloting use of performance-based financing for laboratories.

Strengthening TB reference and satellite laboratories through provision of advanced equipment and enhanced infrastructure.
Results from Peer Assessment of Satellite Laboratories (SLIPTA approach)
Conducting joint training for laboratory management; lab assessors; and developing e-learning modules

Carrying out joint cross border investigations and disease outbreak simulations

Supporting design of web-based mobile phone disease surveillance reporting

Developing multi-country operational research proposals (TB, malaria, ...
New TB Diagnostics

Generate evidence for early and increased detection and improved management of TB patients

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

Produce data that will contribute to policy & programmatic changes in use of TB diagnostics and patient management

Key Research Questions:
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
Participating countries endorsed use of this novel technology for TB diagnosis and aim to roll this out quickly to serve vulnerable populations in cross border areas.

- **Kenya** – 6 machines (delivered & installed)
- **Uganda** – 11 machines (pending)
- **Tanzania** – 7 machines (pending)
- **Rwanda** – 5 machines (pending)
- **Burundi** – 6 machines (not yet ordered)

HO/GLI guidelines and periodic updates are very helpful to countries.

HO/GLI Roll out strategy utilized where the project facilitates training and implementation with close linkages with NTP.

The operational research under the project hinges on the prompt delivery of the Gene-Xpert machines.

Over 200,000 cartridges to be procured in 2012.
Current Challenges

Difficulties and delays in procurement of Gene-Xpert due to protracted discussions over bidding documents with the manufacturer proposing a simplified document which is not consistent with Bank country regulations.

Clinicians are yet to be fully sensitized hence machines maybe in place but are not being optimally utilized.

Inadequate planning for consumables with some facilities experiencing stock outs; need to institutionalize supply of consumables.

Lack of back up power at some facilities which implies machines may not fully utilized or reagents may be wasted; installation of solar panels may offer a solution to this issue.
The launching of Gene Xpert is a major milestone in diagnosis of TB. This is particularly important for us in Wajir where patients travel hundreds of miles to get these services.

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