IOM experience with Xpert MTB/RIF roll-out

Levan GAGNIDZE
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The Migration Agency

The global, inter-governmental organization dealing with the entire range of migration issues

IOM is committed to the principle that humane and orderly migration benefits migrants and society

- 146 Member States and 108 Observer States*
- More than 240 field locations in over 140 countries
- A staff of 7800 staff working on more than 2700 projects, with various activities such as:
  - Migration and Development
  - Facilitating Migration
  - Migration Health
  - Regulating Migration
  - Migration, climate change & environment
  - Movement, emergency & post-conflict migration management

- More than USD 1.3 billion expenditures in 2011

*including 95 global and regional IGOs and NGOs
Migration Health Assessment
- To migrants accepted for resettlement before their departure
- Treatment for tuberculosis, malaria, intestinal parasites and certain STI’s
- Immunization against preventable conditions

Migration Health Assistance and Advice
- Infectious diseases, reproductive health, mental health, immunization, and environmental hygiene and control
- Health promotion and education on migration health-related topics
- Advocacy, study and publication of migration health-related data to provide evidence-based advice to policymakers on migration-related health matters

Post-emergency Migration Health Assistance
- Assistance to governments and populations during and in the aftermath of emergencies to manage health issues related to the mass movement of people, and arranging medical evacuation for individuals, mainly in the context of emergency situations.
- Reconstruction of damaged health infrastructures
- Short-term assistance through expertise needed to support basic health needs
- Long-term support to rebuild capacity through training of national personnel
**Within Migration Health Assistance area**

Four projects with Xpert MTB/RIF as a main diagnostic tool funded by TB-REACH Round II

- **Cambodia** – TB screening of deported Cambodian migrants upon return; implemented in collaboration with NTP (CENAT) & WPR

- **Ethiopia** – enhanced TB & HIV screening of refugees and host communities

- **Nepal** – Early and improved Tuberculosis case detection through the use of GeneXpert instrument in the Eastern Development Region of Nepal

- **Thailand** - addressing bottlenecks in TB diagnostics in poor and border districts of North and North East
Project title
Increasing Active TB Case Detection for Returned Irregular Migrants at Poi Pet border

Context
The systematic TB screenings will use innovative diagnostic procedures using chest X-ray and symptomatic screening along side Xpert MTB/RIF to screen 75,000 returnees at the Poi Pet Referral Hospital in collaboration with existing local Government TB health services.

<table>
<thead>
<tr>
<th>Screening in Immigration Center</th>
<th>Screening at Health Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detention Period</td>
<td>Referral/Screening</td>
</tr>
<tr>
<td><strong>Group B</strong></td>
<td>&lt; 1 Month</td>
</tr>
<tr>
<td><strong>Group A</strong></td>
<td>&gt; 1 Month</td>
</tr>
</tbody>
</table>
Feedback from the project

- The GeneXpert is ideal for our project situation of screening migrants returned at the border in terms of providing same day results before migrants returned to their homes.
- Good move to centralize the procurement of instruments.
- It would have been good to send the validation panel together with the instrument.
- Some of the technicians required refresher training session as there was a problem with mixing up the reagents.

Test performance

<table>
<thead>
<tr>
<th>Total # of tests done</th>
<th>MTB+ / RIF-</th>
<th>MTB+ / RIF+</th>
<th>MTB- / RIF-</th>
<th>Invalid result</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 (100%)</td>
<td>13 (18.5%)</td>
<td>0</td>
<td>55 (78.6%)</td>
<td>2 (2.9%)</td>
<td></td>
</tr>
</tbody>
</table>
**Project title**
Early and improved Tuberculosis case detection through the use of GeneXpert instrument in the Eastern Development Region of Nepal

**Context**
Sputum smear negative individuals with suspected TB will be tested by the Xpert/Rif algorithm. The testing will also be extended to individuals at high risk of MDR TB and HIV infection. TB awareness campaign will target population in the hill and mountain districts who will be informed about new diagnostic methods available in the region.
Feedback from the project

- Excellent test, easy to learn and perform
- Problems not related to the test hindering the project
- Poor power supply, solved by providing back up options
- Laboratories operate only half day
- Lack of referral mechanisms to the GX centres
- Limited DST capacity: Rif resistant cases pose an additional burden
- **CXR mandatory for registration for TB treatment for smear-negative cases, regardless of MTB/Rif positive results**

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<th>Invalid result</th>
</tr>
</thead>
<tbody>
<tr>
<td>701 (100%)</td>
<td>171 (24.3%)</td>
<td>27 (3.9%)</td>
<td>36 (62.2%)</td>
<td>67 (9.6%)</td>
</tr>
</tbody>
</table>
**Project title**
Increase TB case detection in vulnerable populations in North and North-Eastern Thailand through community mobilization and GeneXpert technology

**Context**
The project intervention places the GeneXpert MTB/RIF test platform at provincial laboratory sites to enable the provision of TB diagnosis within 48 hours receipt at the laboratory compared to weeks or months for cases smear negative TB and all suspected MDR TB, including PLWHA.
Feedback from the project

- In general no technical issues were encountered. The equipment is simple and very user-friendly
- Difficulties were mostly with:
  - The field level staff who were to be tasked with running the equipment and testing specimens; despite support from the central or hospital manager side
  - Specimen volume/quality and reluctance by the non-IOM site staff to perform at optimum rates to match the inflow of test samples
  - Validation kit was delayed due to miscommunication between TB-R and the supplier
- Two days training was conducted by IOM trainers
- Lengthy negotiations with Xpert sites

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<tbody>
<tr>
<td>177 (100%)</td>
<td>24 (13.6%)</td>
<td>3 (1.7%)</td>
<td>143 (80.8%)</td>
<td>7 (3.9%)</td>
</tr>
</tbody>
</table>
Project title
Enhancing TB/HIV detection and treatment among migrants and refugees in Ethiopia

Context
The project aims to increase case notification of TB by providing Community-Based DOTS (CB-DOTS) to the refugee population and enhanced case finding to the host populations in combination with improved access to TB diagnostic services (GeneXpert) and Health systems strengthening.
Excellent test, easy to perform, user-friendly equipment

It was a good idea that all sourcing of Xpert instruments and supplies was done centrally

Installation and training generally went smoothly
  one site had to provide refresher training almost immediately

As the validation kits were sent separately from the instruments some projects encountered delays in starting testing

Additional customs clearance

Challenges motivating NTP field staff to perform examinations

Xpert MTB/RIF positive results are not accepted or require CXR
Suggestions

- NTPs to address Xpert MTB/RIF roll-out at country level
  - Amending necessary policies to accept Xpert MTB/RIF as one of the diagnostic test without extra preconditions (CXR)
  - Addressing issues of personnel in the laboratory
- Combine shipment of validation kits together with instruments and supplies
- Clarify to end users if validation is necessary before staring use of instruments
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Thank you