

IOM experience with Xpert MTB/RIF roll-out



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IOM At a Glance

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 division



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



Xpert MTB/RIF in IOM projects

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



IOM Cambodia TB-R project

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.



Screening in Immigration Center			Screening at Health Center		
	Detention Period	Referral/Screening	X-Ray	Microscopy	Xpert MTB/RIF
Group A	>1 Month 15,000 (20%)	All to be referred	X-ray + symptom screening (15,000)	One sputum specimen for both Microscopy & Xpert MTB/RIF (1,500-2,500 (10-15%))	
Group B	<1 Month 60,000 (80%)	Symptom screening for all result in 5-10% referral		One sputum specimen for both Microscopy & Xpert MTB/RIF (3,000- 6000 (5-10%))	



IOM Cambodia TB-R project (cont.)

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

Total # of tests done	MTB+ / RIF-	MTB+ / RIF+	MTB- / RIF-	Invalid result	Comments
70 (100%)	13 (18.5%)	0	55 (78.6%)	2 (2.9%)	



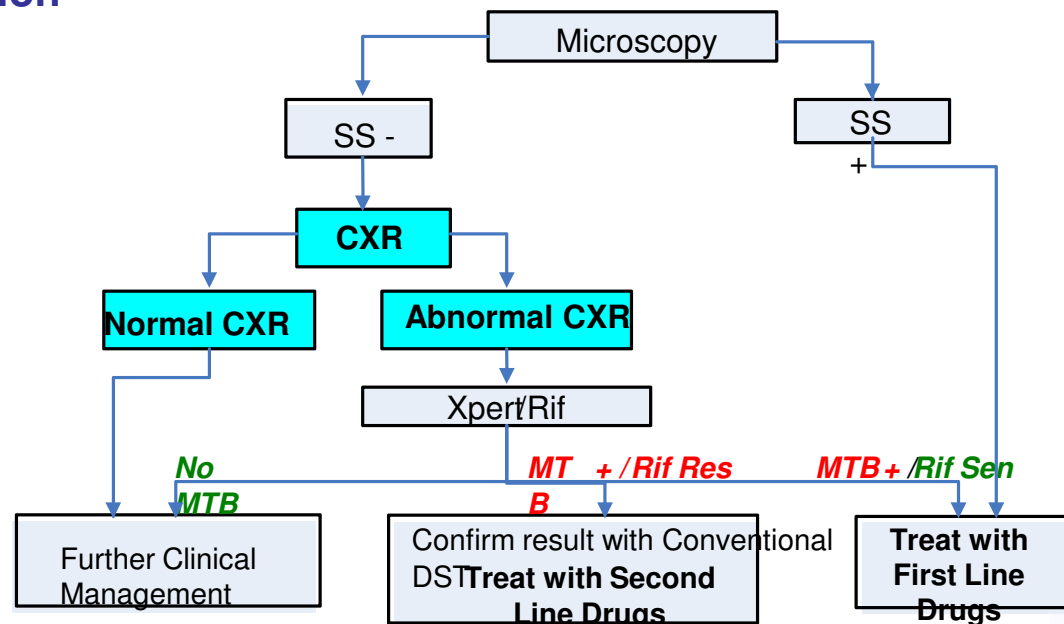
IOM Nepal TB-R project

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





IOM Nepal TB-R project (cont.)

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

Test performance

Total # of tests done	MTB+ / RIF-	MTB+ / RIF+	MTB- / RIF-	Invalid result
701 (100%)	171 (24.3%)	27 (3.9%)	36 (62.2%)	67 (9.6%)





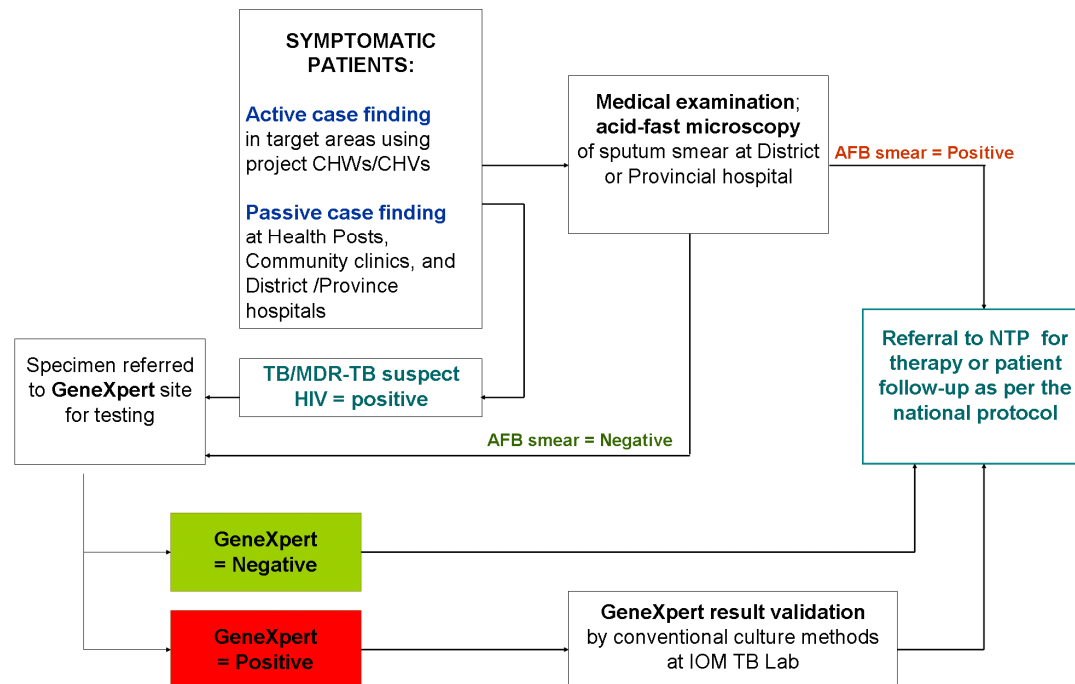
IOM Thailand TB-R project

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





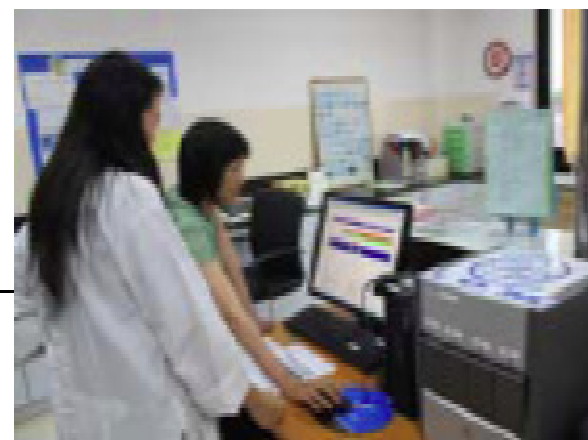
IOM Thailand TB-R project (cont.)

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

Test performance

Total # of tests done	MTB+ / RIF-	MTB+ / RIF+	MTB- / RIF-	Invalid result
177 (100%)	24 (13.6%)	3 (1.7%)	143 (80.8%)	7 (3.9%)





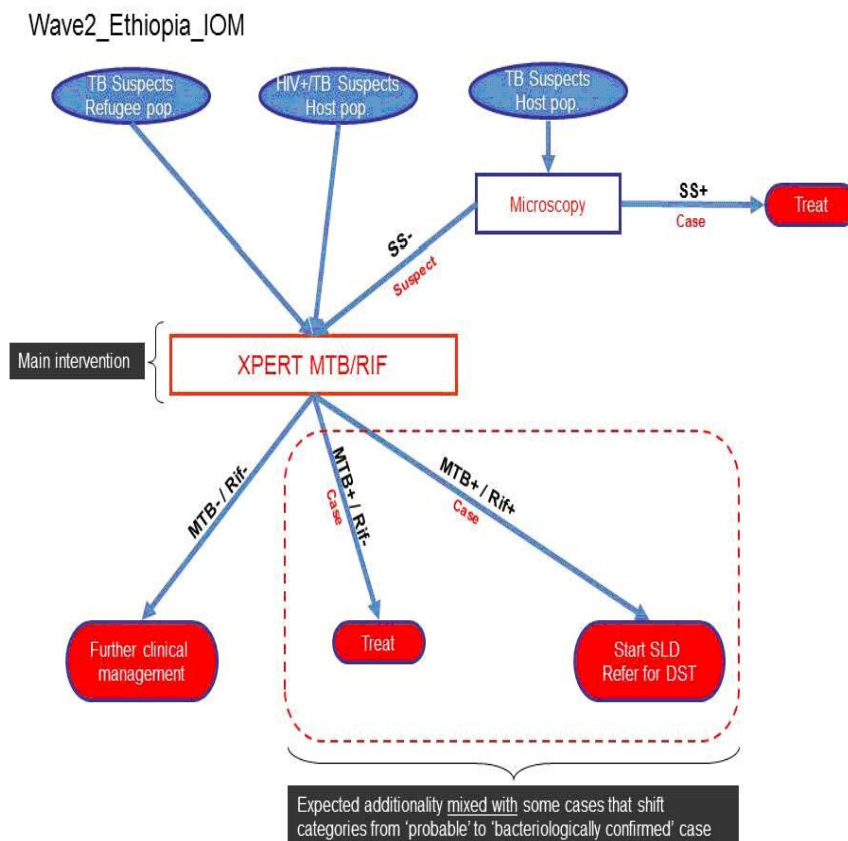
IOM Ethiopia TB-R project

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





Summarizing IOM experiences from Xpert MTB/RIF

- 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

- ④ **NTPs to address Xpert MTB/RIF roll-out at country level**
 - ④ **Amending necessary policies to accept Xpert MTB/RIF as one of the diagnostic test without extra preconditions (CXR)**
 - ④ **Addressing issues of personnel in the laboratory**
- ④ **Combine shipment of validation kits together with instruments and supplies**
- ④ **Clarify to end users if validation is necessary before starting use of instruments**



Acknowledgements

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***Thank
you***