

Standardised monitoring and evaluating framework for Xpert MTB/RIF test implementation

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Introduction

World Health Organisation (WHO) endorsed the Xpert MTB/RIF test in 2010 for the diagnosis of tuberculosis (TB) and detection of rifampicin resistance in low and middle-income countries. Since 2010, more than 7.5 million test cartridges have been procured and testing has been implemented in over 108 high disease burden countries. As countries scale up the use of the Xpert MTB/RIF test for case detection, there is an urgent need for standardized processes and tools to assist countries to better monitor and evaluate (M&E) test implementation.

Methods

FIND and partners have developed a standardised comprehensive M&E framework including programmatic and laboratory aspects of Xpert MTB/RIF implementation. The M&E framework covers all stages, from site selection and readiness, installation of equipment, training and competency assessment, site monitoring visits, and handover of instruments from partners/donors to the Ministry of Health (MOH). The framework has been customised and piloted in Tanzania and Lesotho.

Results

The M&E framework consists of five phases and includes seven standardized checklists and four training packages:

(1) Policy & planning

- Strategic plan for Xpert MTB/RIF test implementation developed
- MOH appoints Xpert Focal Person
- Country consultation between implementing partners and MOH

(2) Pre-installation

- Standardized checklists used to assess that laboratory & clinical sites are prepared for instrument installation
- Preparation of the national Xpert diagnostic algorithm

(3) Installation & training

- Training based on the Global Laboratory Initiative (GLI) curriculum conducted
- Staff competency assessed
- Xpert MTB/RIF test verified
- Instrument data collected using **XPRT MTB/RIF TRACKING TOOL**

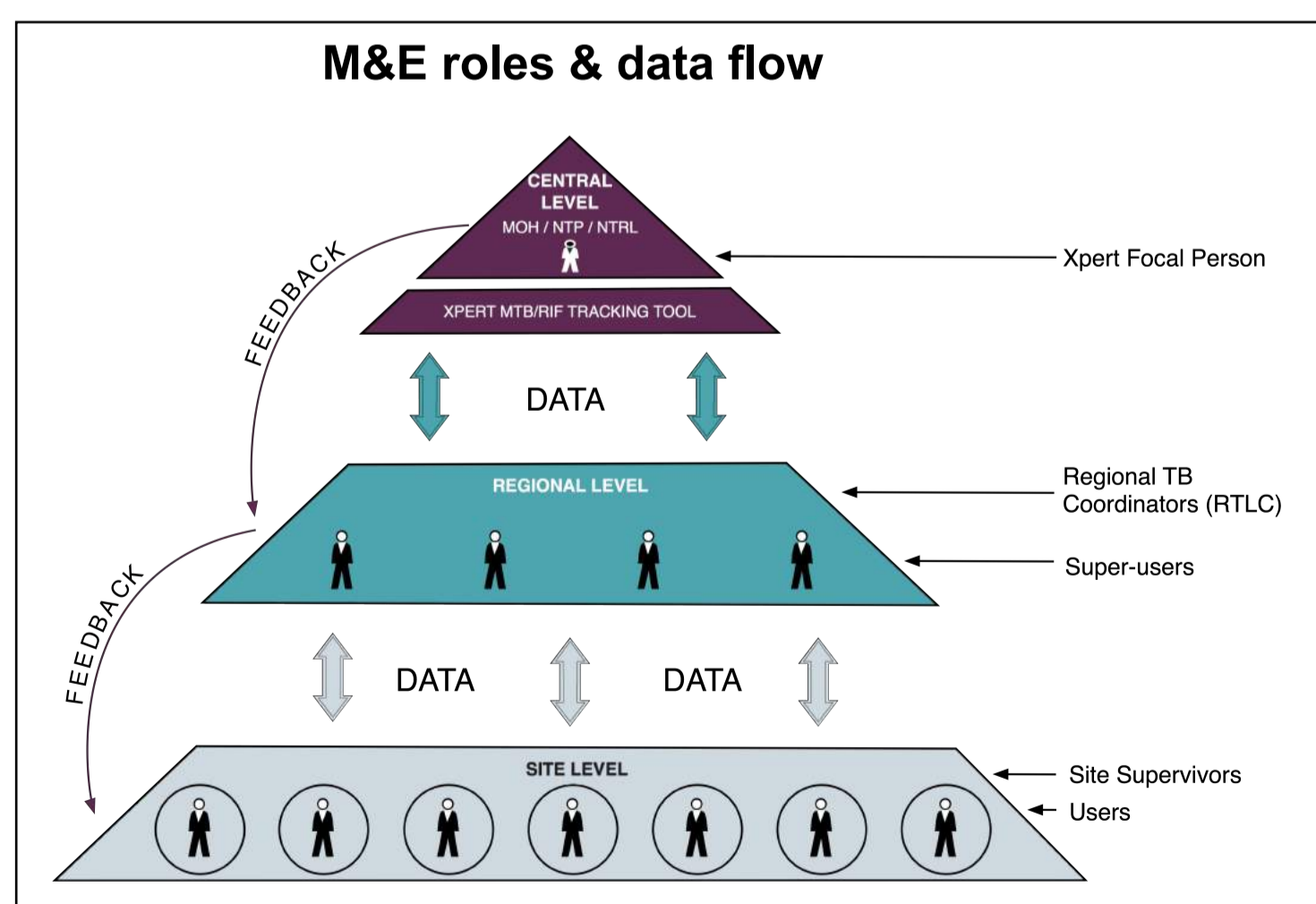
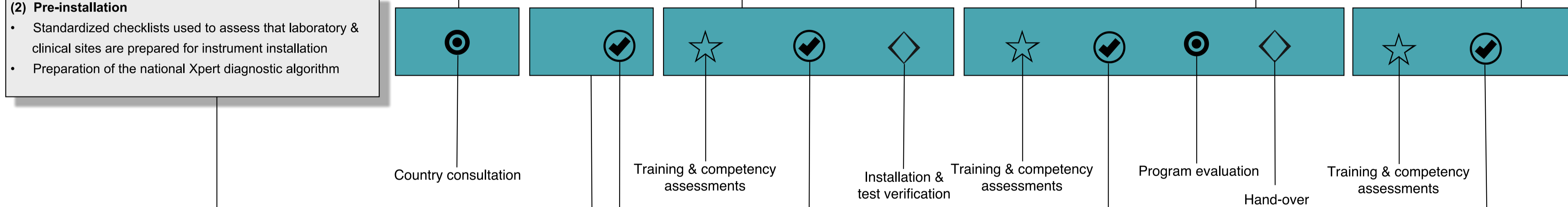
(4) Early implementation

- Further training based on the GLI curriculum conducted
- MOH and implementing partners collect and analyse quality indicator data using **XPRT MTB/RIF TRACKING TOOL**
- Supervisory visits conducted using standardized checklists for troubleshooting and evaluating Xpert implementation (quarterly & annually)
- Phase concludes with programme evaluation and hand-over of the GeneXpert instruments to the MOH

(5) Routine testing

- Implementing partners continue to support MOH
- Supervisory visits using standardized checklists conducted by RTLC, & Xpert Focal Person
- XPRT MTB/RIF TRACKING TOOL** updated regularly, results analysed and feedback given

XPRT MTB/RIF TRACKING TOOL
XPRT MTB/RIF TRACKING TOOL used for monitoring of instrument placement, calibration dates, site contact information, training and training participant information, site assessment results, quality indicator data and external quality assessment results



(1) Pre-installation & (2) Clinical site assessment checklists

(3) Installation checklist

(4) Comprehensive, (5) Troubleshooting, (6) Quarterly & (7) Pre-handover checklists

Comprehensive, Troubleshooting, Quarterly checklists

Training & competency assessments

1. Clinical 2. Site supervisors & users 3. Xpert Focal Person 4. Regional TB Coordinator (RTLC) & super-users

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Acknowledgements

Jessica Bennet (FIND) for development of the **XPRT MTB/RIF TRACKING TOOL**
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Conclusions

The comprehensive M&E framework is an important tool for national programmes to customise and implement as part of their programmatic M&E. A manual data collection and analysis system is currently being used, but innovative approaches to simplify data collection and analysis are being piloted. The use of a standardised M&E framework can contribute towards sustainable implementation of Xpert MTB/RIF testing from planning to routine implementation.