

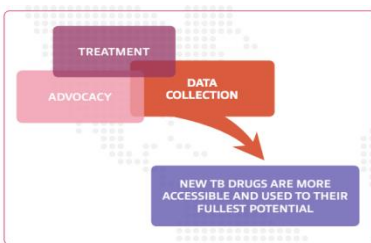
Design, Development, and Deployment of the endTB Electronic Medical Record for MDR-TB in 16 countries: Lessons Learned

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1. Médecins Sans Frontières, 2. Interactive Research and Development, 3. Partners in Health, 4. Epicentre

Background

- endTB project: 3 partners (**Partners in Health, Médecins Sans Frontières and Interactive Revolution and Development**) funded by Unitaid
- Objective to give access to Bedaquiline and Delamanid to **2,600 MDR-TB patients in 17 countries**, and includes an observational study to provide evidence on safety and efficacy
- Therefore a new **Electronic Medical Record** was designed and built to collect patient data for analysis and patient and program management



Approach: Quick Design, Build, Release and Feedback loop

Design June -September '15

- Define needs and scope: Inception
- Identify key players, define roles: clinicians, implementers, field users, data entry, software developers, business analyst, health information systems
- Describe needs: Clinical, programmatic, research, implementation
- Content: detailed definition of elements, design of forms and **metadata**

Build, Release, Feedback September '15-December '16

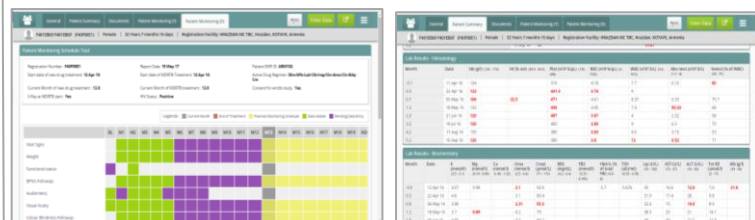
- Weekly calls between consortium clinicians and software developers
- Showcases of agile development
- Pilot April 2016 Armenia & Georgia
- Close collaboration between implementers
- 6 weekly updated releases April – December 2016, including: testing new features, rapid feedback, adjusting content, improvements, ongoing development of features, finding and fixing bugs



Observational study Clinical trials

Results

- Completion of deployment to all endTB sites
- Centralized help desk and rapid support
- Key features include:
 - Simplified configuration and installation
 - Multi-user access at project level
 - Patient management tools
 - Input standard TB reports for programme monitoring and reporting
 - Pharmacovigilance monitoring
 - Automatic exports for analysis
 - Russian, English and Spanish versions
 - Data quality checks
 - Importation of lab results
- End user feedback loop for improved system use



Key Lessons Learnt

1. Identify key stakeholders and define their roles
2. Define scope early
3. Prioritize and reprioritize continually
4. Define high-level requirements and priorities early
5. Content and Metadata take more time than any other steps
6. Constant communication and feedback loops are required
7. Nothing is Impossible...*just need time and money*

Next Steps

- Develop TB EMR minimum package for easy use in MDRTB projects (easy installation and configuration)
- Provide ongoing support for current endTB projects with EMR and scale up to MDTB project with consortium programs.
- Open source configuration and content
- Improving usability, training and utility

For documentation and more information



We would like to acknowledge the many contributors and actors involved in the endTB project: National TB Programs and Ministry of Health; Doctors; NTP Managers; Patients; Unitaid; Thoughtworks (EMR): Prabhu Awasthi, David Oh and Sudhamsh Kandukuri; Partners-In-Health; Médecins Sans Frontières; Interactive Research & Development