

# The Xpert MTB/RIF Research Mapping Project

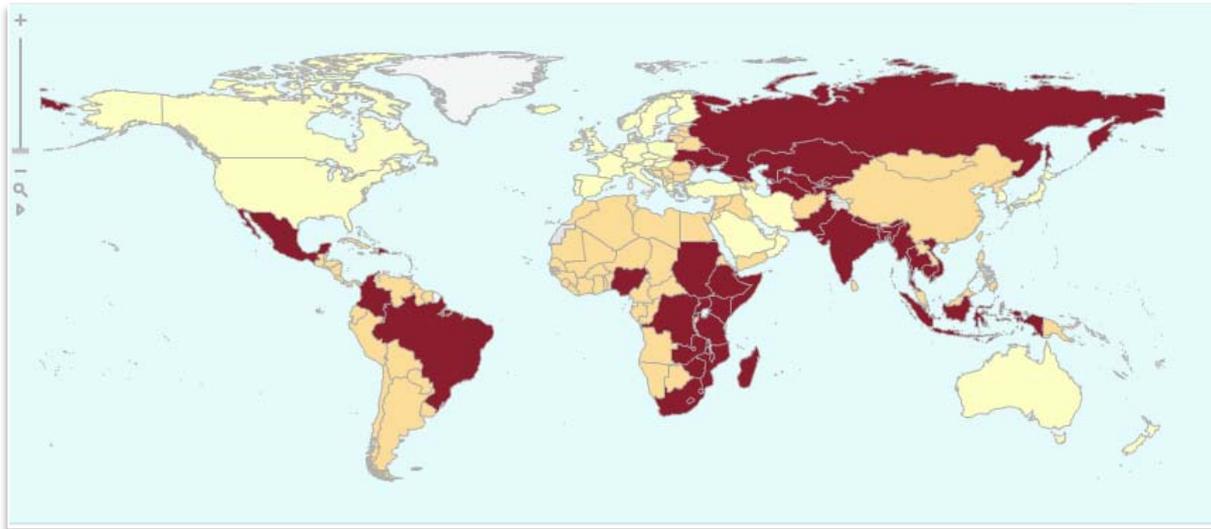
Anne Detjen, The Union/TREAT TB

# Global collaboration and coordination of

## Xpert MTB/RIF roll-out

➔ WHO: Monitoring of roll-out, procurement and procurement plans

<http://www.who.int/tb/laboratory/mtbrifrollout/en/index.html>



# Open Research Questions

## WHO Xpert MTB/RIF Policy Statement

- ➔ Interim diagnostic algorithms in different epidemiological and geographical settings and patient populations
- ➔ Cost-effectiveness and cost-benefit in different programmatic settings
- ➔ Extrapulmonary and paediatric TB
- ➔ Impact of Xpert MTB/RIF in reducing diagnostic delay and treatment initiation
- ➔ Impact on treatment access and treatment outcomes, especially among hard-to-reach populations
- ➔ Operational issues: Calibration, power supply, shelf life, storage, waste management



Who is doing research?

Where?

What focus areas?

What are the lessons learnt?

## Xpert Research Mapping project

- ➔ Create a platform for researchers, implementers, policy makers
- ➔ Provide information, initiate exchange and discussion
- ➔ Optimize research efforts related to implementation and scale-up



# Xpert MTB/RIF Research Mapping Project

## ➔ Online questionnaire to capture

- Information on research collaborations performing Xpert research
- Basic information on roll-out in the countries where research is performed
  - Research design (Setting, target populations, algorithms)
  - Research outcomes
- May 2011: Distribution of questionnaire via Union, Stop TB, NDWG and other newsletters and mailing lists



# www.xrmt.treattb.org



Technology, Research, Education, and  
Technical Assistance for Tuberculosis  
*SUPPORT RESEARCH TO GUIDE POLICY*

## Xpert Research Mapping Project

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### Welcome to the Xpert® MTB/RIF Mapping Tool

Xpert® MTB/RIF has recently been recommended by WHO as a promising new tool for the rapid diagnosis of TB, in particular drug-resistant TB. While implementation efforts are under way, there are still many unanswered questions around the tests' optimal use within health systems and in different patient populations that warrant further research.

The Union, through the USAID-funded TREAT TB initiative, and supported by WHO, has developed this tool, which allows researchers and policy makers to globally map ongoing research activities around Xpert® MTB/RIF. The tool aims to be a comprehensive platform providing information and initiating exchange and discussion in order to optimize research efforts related to implementation and scale-up of Xpert® MTB/RIF.



**WHO monitoring of  
Xpert MTB/RIF roll-  
out**

**Xpert MTB/RIF  
Research at a  
Glance**

**There are currently  
24 research projects  
in 16 countries  
listed.**

# Xpert Research Projects Worldwide

Click on a country below to produce a list of projects in that country.

Or click here to search by country name, organization, target population, level of health care system, or impact assessment.



**24 projects in 16 countries**

# Projects listing

Select a Country (Implementation or Research)

<Any>

Organization

Target Population

<Any>

Level of Health Care System

<Any>

Impact Assessment

<Any>

Apply

Project Title	Site Location(s)	Research target population	Contact Name	Organizational Affiliation
Policy Relevant Outcomes from Validating Evidence on Impact (PROVE-IT) of Line Probe Assay and MTB/RIF on Presumptive Diagnosis of DR-TB in Brazil	Brazil	MDR suspects	AFRANIO LINEU KRITSKI	REDE TB / MEDICAL SCHOOL OF FEDERAL UNIVERSITY OF RIO DE JANEIRO FIOVR
Feasibility, impact and cost-efficiency of decentralizing molecular testing for detection of tuberculosis and rifampicin resistance using Xpert MTB/Rif	South Africa	All TB suspects	Andrew Whitelaw	NHLS / University of Cape Town



### PROJECT CONTACT

**Project Contact Name:** AFRANIO LINEU KRITSKI  
**Org Affiliation:** REDE TB / MEDICAL SCHOOL OF FEDERAL UNIVERSITY OF RIO DE JANEIRO FIOVR  
**Contact Email Address:** KRITSKIA@GMAIL.COM  
**Organization or project website:** <http://www.redetb.org>

### COLLABORATING ORGANIZATION(S)

**1:** THE UNION - UNION INTERNATIONAL AGAINST TUBERCULOSIS  
**2:** LIVERPOOL SCHOOL OF TROPICAL OF MEDICINE  
**3:** NATIONAL TAIWAN UNIVERSITY  
**4:** NEW DIAGNOSTIC WORKING GROUP  
**5:** NATIONAL TB CONTROL PROGRAM- SVS- MINISTRY OF HEALTH- BRAZIL  
**6:** BRAZILIAN TUBERCULOSIS RESEARC NETWORK - REDE TB  
**7:** NATIONAL REFERENCE CENTER - ENSP - FIOCRUZ  
**8:** MANAGEMENT SCIENCE FOR HEALTH- MSH  
**9:** USAID  
**10:** STATE SECRETARY OF HEALTH - SAO PAULO STATE, CEARA STATE AND RIO DE JANEIRO STATE

### PROGRAMMATIC IMPLEMENTATION

This section gives basic information programmatic implementation of Xpert MTB/RIF in the country the research is performed in as provided by the research teams.

The country listed is where research is being performed.

If Xpert is being implemented within the public health programme in this country, details of the implementation process are listed.

**Country:**

Brazil

10° 32' 2.04" S, 55° 56' 0.9456" W

**Phase of Programmatic Implementation of Xpert MTB/RIF in the Public Sector:**

No implementation yet

**Additional Comments:**

Is Xpert MTB/RIF implemented in the private sector? Yes

**Private Sector Implementation of Xpert MTB/RIF:** Unknown

### RESEARCH COUNTRIES

**Site Location(s):**

Brazil

# Project Overview

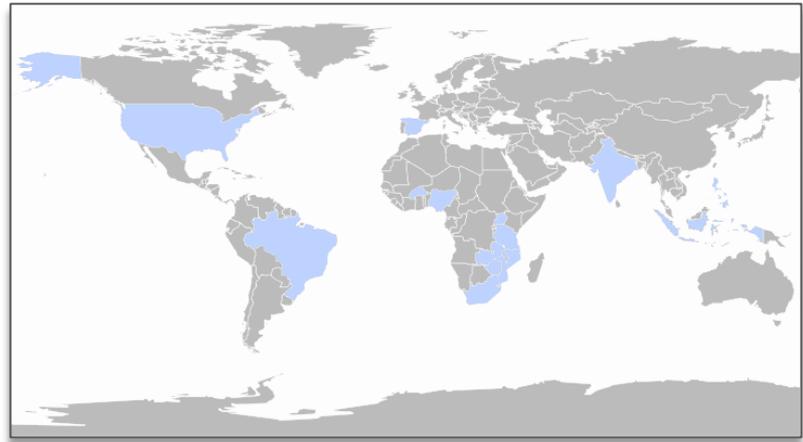
- Project contact & collaborators
- Programmatic implementation
- Research Location
- Timelines
- Publications
- Study design
- Research Setting
- Outcomes
- Diagnostic algorithms
- Other new tools
- Source of Funding



# Some Research Details

## Target population

- ➔ All TB suspects (14)
- ➔ HIV-infected (9)
- ➔ MDR suspects (7)
- ➔ Children (4)
- ➔ Other: EPTB, smear negative suspects (2)



Most countries:  
No implementation at  
programme level



# Level

- Point of care (14)
- District (11)
- Central (7)



# Outcomes (selected)

- Case finding compared to smear or culture
- Comparison of diagnostic algorithms
- Time to detection, time to treatment
- Mortality
- Yield from other samples (EPTB, blood, children)
- Xpert as rule-out test (pre IPT)
- Public Health implications



# Impact assessment

- ➔ Health system costs (13)
- ➔ Patient costs (12)
- ➔ Health system requirements (12)
- ➔ Equity issues: gender inequality, access etc. (3)

Select a Country (Implementation or Research) Brazil	Organization 	Target Population <Any>
		Level of Health Care System <Any>
<b>Impact Assessment</b>		
<ul style="list-style-type: none"><li>&lt;Any&gt;</li><li>&lt;Any&gt;</li><li>Health system costs</li><li>Patient costs</li><li>Health system requirements</li><li>Equity issues (e.g., access, poor vs. less poor, gender inequality, etc.)</li><li>No impact assessment</li></ul>		Apply
	Contact Name	Organizational Affiliation



# Conclusions

- Multiple research projects ongoing
- There must be more!
- Comprehensive information on research approaches and anticipated outcomes
- Is it useful?
- Potential to inform research community and policy makers alike



# Participate and enter your Xpert MTB/RIF research project: [www.xrmt.treattb.org](http://www.xrmt.treattb.org)

For questions:

[xpertmappingtool@theunion.org](mailto:xpertmappingtool@theunion.org)

Thank you: all the participants in the project  
Christine Hunt, Cathriona MacCauley, Don Koller



