



EXPAND-TB

ACHIEVING MDR-TB DIAGNOSIS IN 27 COUNTRIES

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TB diagnostics and laboratory services: Actions for care delivery and sustainability;
4th Global Laboratory Initiative (GLI) Partners Meeting ;
SESSION 2: Reports from GLI partners, April 17th, Annecy

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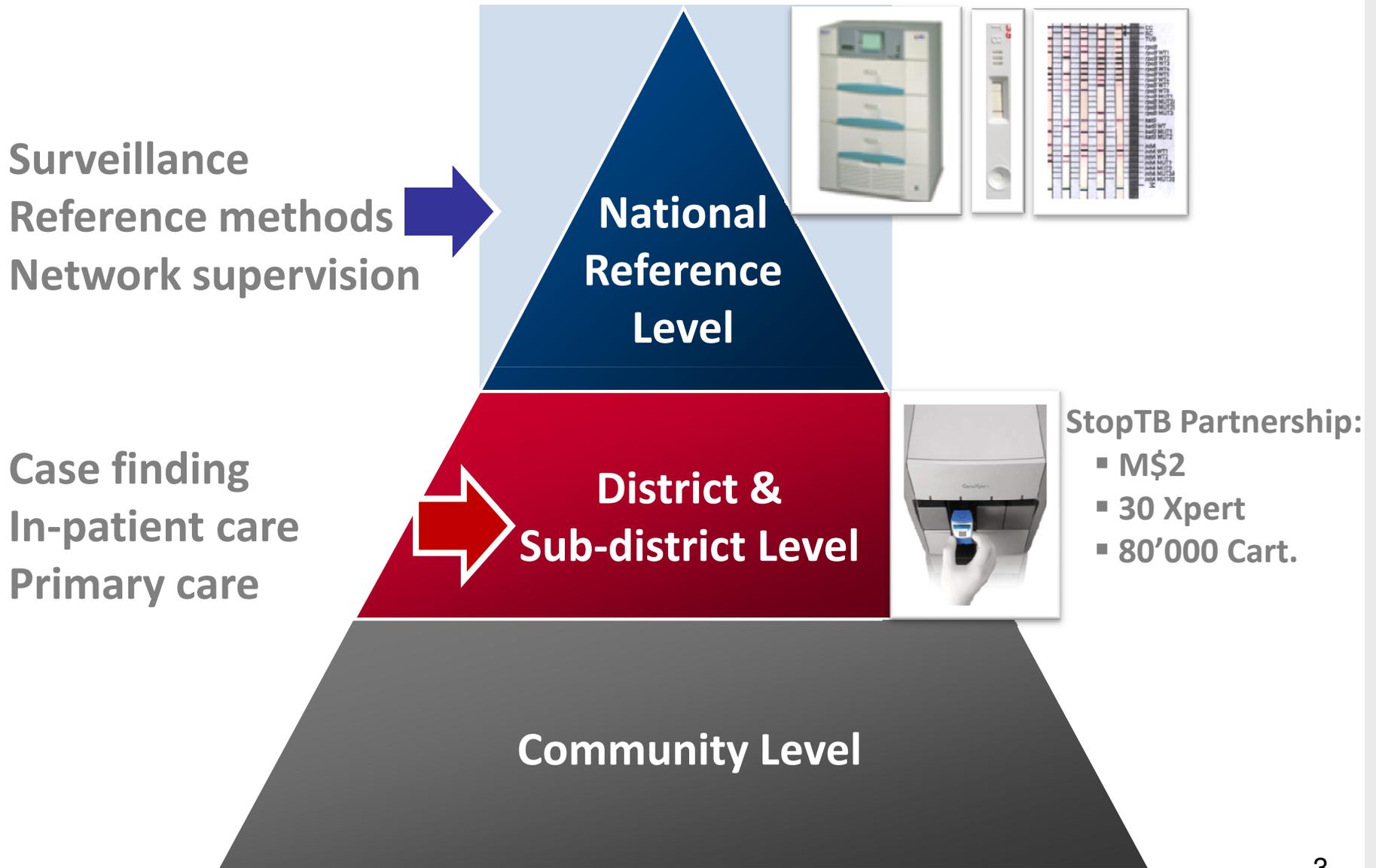
Partnering for better diagnosis for all

Background

EXPAND_xTB

- **To expand TB and MDR-TB diagnostic capacity**
 - **by introducing rapid, quality-assured WHO-endorsed tests**
 - **by supporting 105 reference labs in 27 countries**
 - **by increasing market size and decreasing test price**
- **Unique Diagnostic Project worth more than M\$350**
- **Formal country requests for participation**
- **Only 5 year project but lasting impact on the implementation of new technologies as it provides essential laboratory capacity**

Reaching point of treatment EXPAND_xTB



Partners

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Funding for commodities and assistance



Policy framework, standards & monitoring



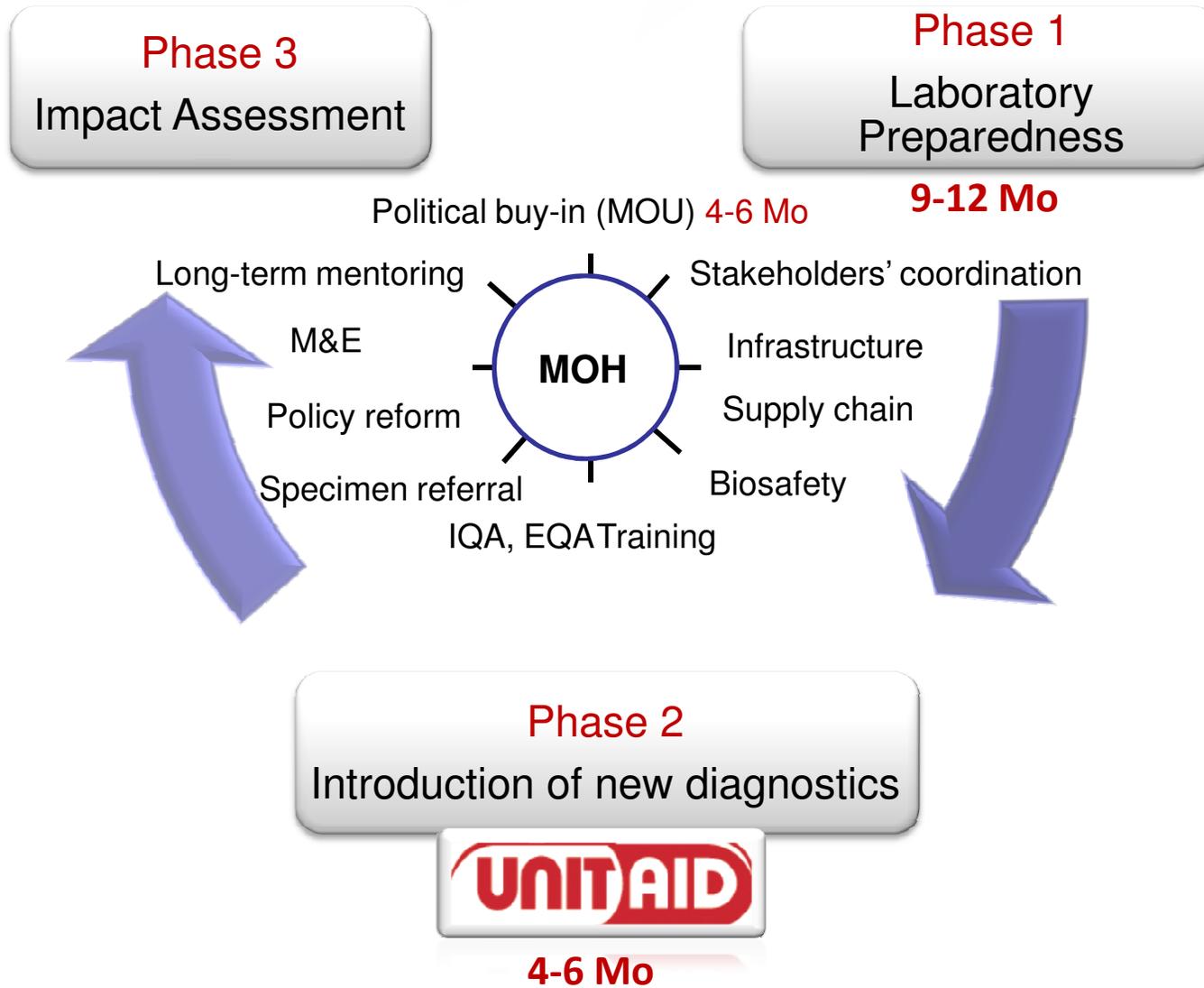
Main implementer, knowledge transfer



Procurement

360° support required

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Project Status

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Phase 1: **9-12mo**

Phase 2: **4-6mo**

Phase 3: **on-going**



Bangladesh
Indonesia
Viet Nam
Rwanda
Mozambique
Peru
Kazakhstan
Belarus
Senegal
Tajikistan

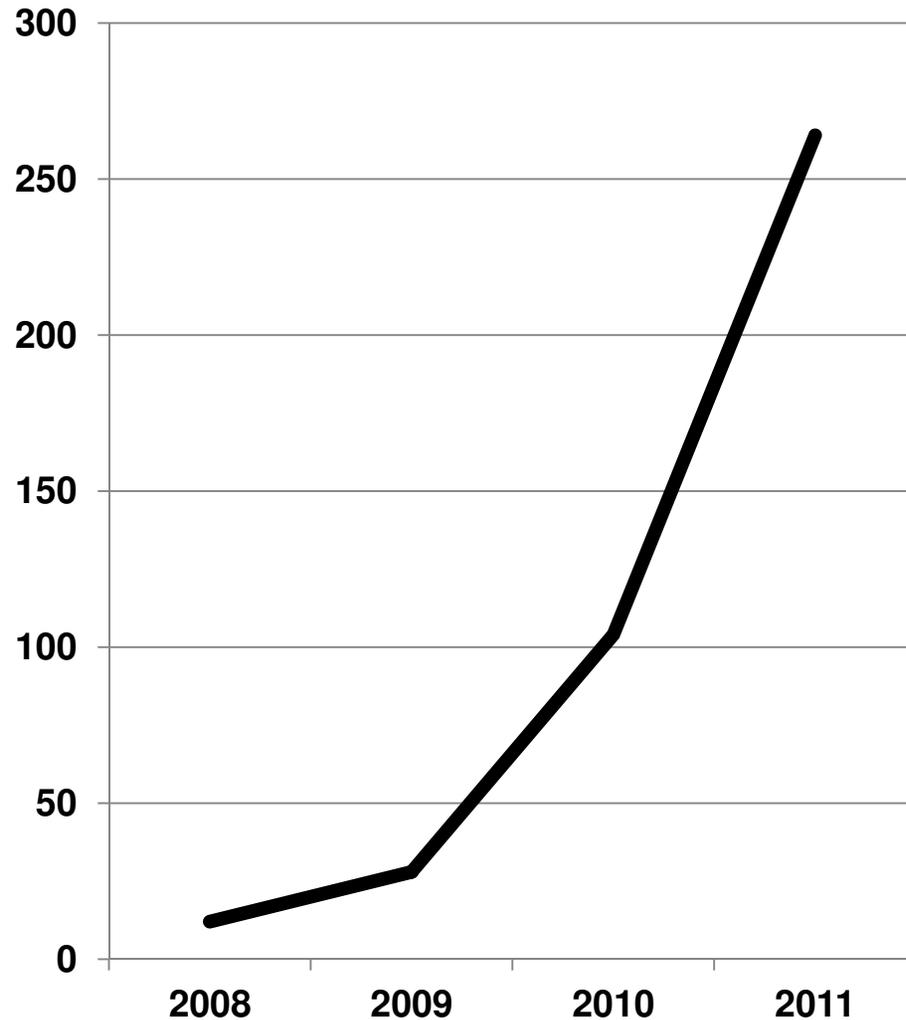
Côte d'Ivoire
Kyrgyzstan
UR Tanzania
Kenya

India
Uzbekistan
Rep Moldova
Azerbaijan
Georgia
Uganda
Swaziland
Lesotho
Ethiopia
Djibouti
Cameroun
Haïti
Myanmar

- Labs established so far: **58** out of 105
- 13 countries reporting MDR cases
- More than 10'000 MDR cases already diagnosed

Procurement acceleration

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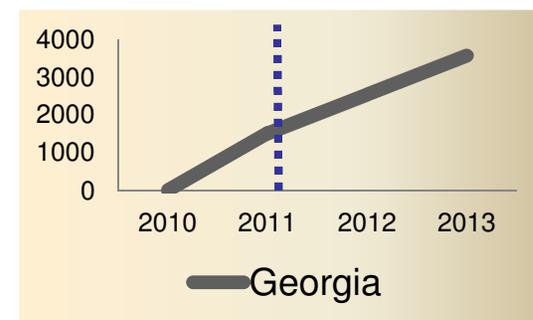
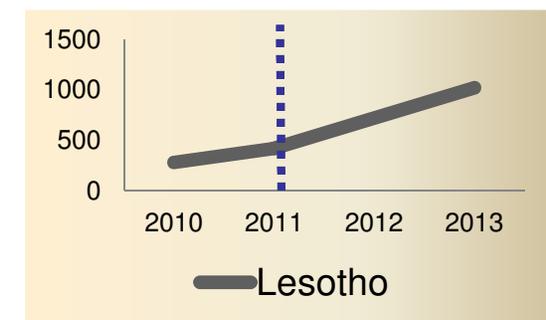
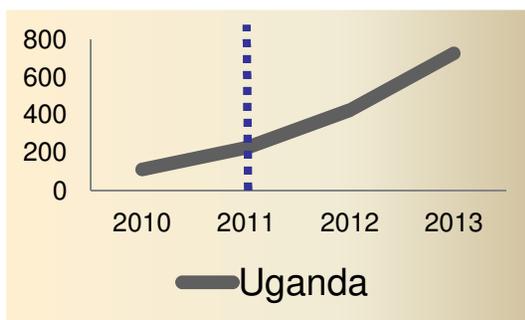
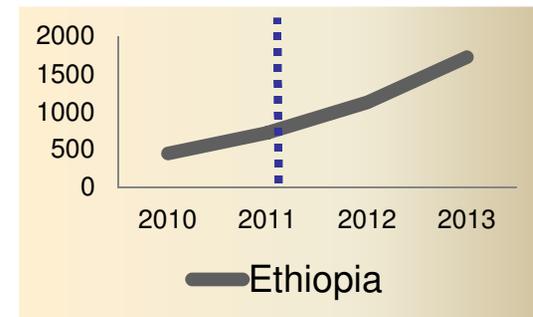
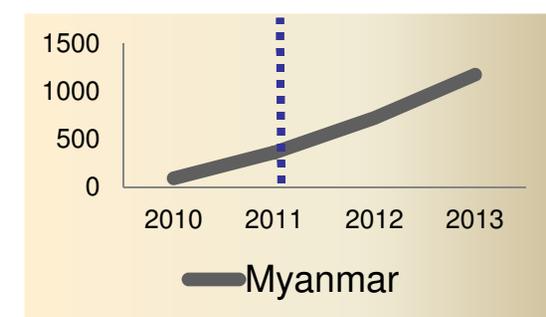
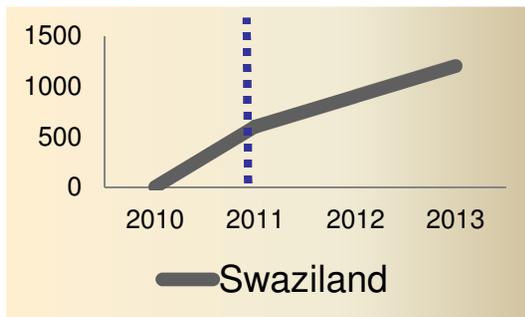
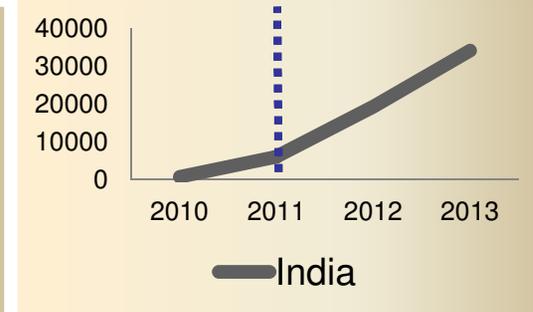
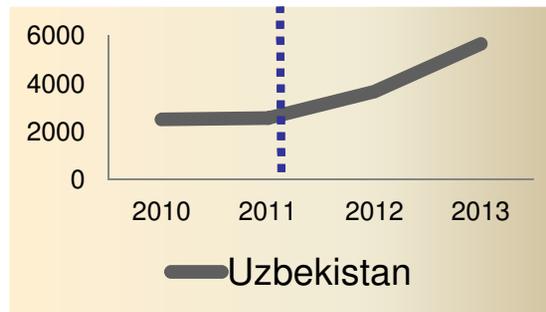


Number of shipments

Azerbaijan	15
Belarus	
Cameroon	7
Cote d'Ivoire	8
Djibouti	11
Ethiopia	48
Georgia	19
Haiti	19
India	227
Kenya	6
Kyrgyzstan	22
Lesotho	12
Myanmar	23
Republic of Moldova	16
Swaziland	12
Tajikistan	7
Uganda	6
United Republic of Tanzania	7
Uzbekistan	8
Viet Nam	10
Grand Total	483

Improved case detection

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Most observed challenges

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Specimen referral

Human Resources

Commodity management

Maintenance for infrastructure and equipment

Laboratory Information Management Systems

EXPAND-TB early impact in INDIA

**Examples at the New Delhi TB center and
the Rajan Babu Institute for Pulmonary
Medicine and Tuberculosis**



Every year in India, about 2 million people develop tuberculosis and more than 300,000 die from the disease. These cases account for one quarter of the global burden of TB.



Despite the progress being made, WHO estimates that the public sector in India only detects 60% of all TB cases in the country. Overcrowded hospitals and limited diagnostic facilities compound this low rate. In some cases, an unregulated private health sector contributes to suboptimal diagnosis and treatment, one of the primary causes of multidrug-resistant tuberculosis (MDR-TB).



Widespread and easy access to accurate and rapid diagnosis of TB is critical to improve patient outcomes and to reduce transmission of the disease to families and communities. For example, at the New Delhi TB Centre, 40 patients are currently tested for TB and MDR-TB every day.



The New Delhi TB Centre also hosts the State Reference Laboratory where, until recently, testing relied solely on solid culture and DST examination, a diagnostic approach which only provides results after 8 to 12 weeks. This slow response can contribute to the death of MDR-TB patients through lack of proper and timely treatment.



The EXPAND-TB project, a multi-partner initiative funded by UNITAID, has radically changed this situation. New and rapid TB diagnostic technologies like liquid culture and DST, rapid speciation and line probe assay (LPA) have become the current gold standards for diagnosing TB and MDR-TB. However, they require upgraded laboratory infrastructure.



Since 2010, these FIND co-developed diagnostic tests have been introduced at the New Delhi TB Centre as part of the EXPAND-TB project. As the main implementing agency, FIND's responsibilities have included training laboratory staff, providing guidelines and developing quality assured processes, thus contributing to the successful set-up and correct use of these technologies.



In addition, through EXPAND-TB and additional funding from the WHO-GLI, FIND helped set up a world-class training facility in Bangalore - ICELT (International Centre of Excellence in Laboratory Training) - where laboratory staff from all over India can be trained in how to use the latest cutting edge TB diagnostic technologies.



Since the successful introduction of liquid culture, rapid speciation and LPA technologies under EXPAND-TB, the laboratory is routinely diagnosing patients who have MDR-TB with improved accuracy and reduced turnaround time.



Rapid and accurate diagnosis is an essential tool for TB doctors. When faced with potentially misleading symptoms, it gives them the means of making the right treatment decisions and ultimately saving lives.



Having been diagnosed with MDR-TB, Laxmi was admitted at the Rajan Babu Institute for Pulmonary Medicine and Tuberculosis, Delhi. Although she is affected with a form of TB that will take more time and be more complicated to treat, benefitting from a reliable diagnosis has enabled her to start a treatment regimen with second line drugs straight away. This will increase her chances of being cured and will avoid transmission to her family members.



Kavita's story is one of several sad examples of wrong diagnosis and treatment. She was diagnosed to suffer from MDR-TB merely relying on a chest X-ray and a blood test. Based on these scanty evidences, she was given inappropriate treatment on an irregular basis at several different time periods, which resulted in respiratory distress and deterioration. At last, she was diagnosed with MDR-TB using Xpert MTB/RIF at All India Institute of Medical Science.



Cases like Kavita's do not need to occur. We now have the tools to catch patients before they reach a life-threatening stage of the disease. Ensuring universal access to early and accurate diagnosis represents a major step towards this goal. Doctors at the Rajan Babu Institute can already witness a tangible improvement. "Since DOTS and the EXPAND-TB project were launched, we see far fewer patients in an advanced stage of TB with little chances of survival.", said Dr. J. N. Banavaliker, Director of the hospital.



Through the EXPAND-TB project and other initiatives, India has been able to diagnose a greater number of MDR-TB cases than ever before. Since the beginning of the project two years ago, there has been a five fold increase, from about 700 cases detected in 2010 to 3,500 in 2011.

Acknowledgements

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