TB REACH: Introducing and Evaluating New Tools and Approaches

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Stop TB Board Meeting

29th September 2021

hosted by UNOPS

Outline

- TB REACH's place at Stop TB to promote rapid deployment and uptake
- Updates on Wave 9
- New Tools Evaluations
- TB REACH and COVID-19
- New Funding for 2022

Stop TB: Moving from Innovation → Scale

- Many new tools and approaches in TB that need support, promotion, evaluation and scale up (if successful)
- RTC and A4i – Sourcing and promoting innovative ideas and tools
- TB REACH – Introducing and evaluating in country
- GDF - Providing access for scale for new diagnostics and medicine

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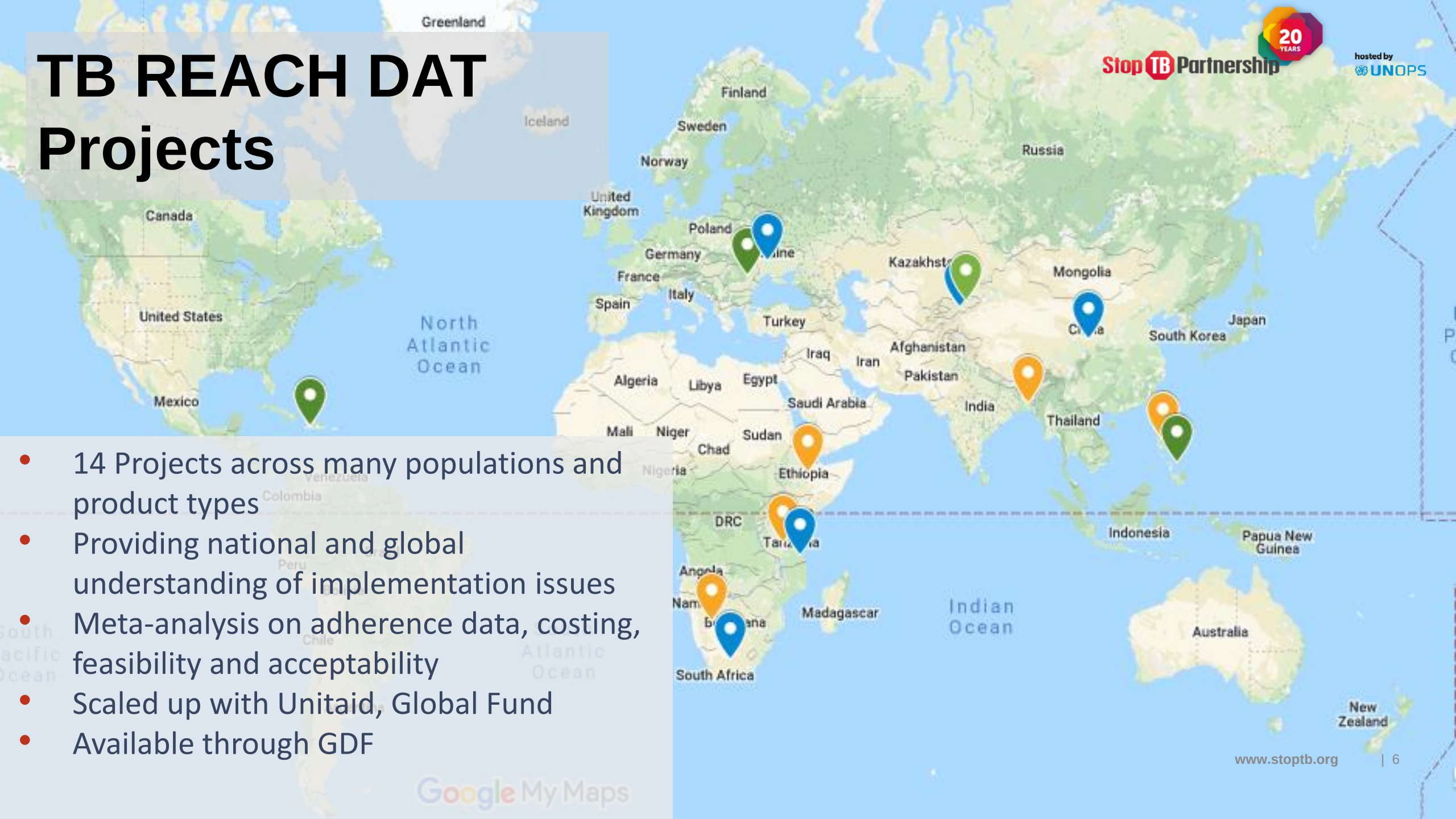
TB REACH Wave 9

- With USAID support –January announced Wave 9 call for proposals focusing on MDR-TB
- USD 145M in proposals from 24 countries (293 proposals)
- 11 new grants from 8 countries were selected for funding (6.1 million USD)
- Projects starting as early as Q4 - 2021
  - Linkage to care
  - New all oral regimens
  - Treatment outcomes

TB REACH Innovations - MDR

- Wave 7 - OATH in Ukraine enrolling on BPaL: 100+ people to date – 55 finished by end September
- Outside of clinical trials, enrolled more than all other countries combined for BPaL
- Wave 9 projects look to increase people receiving all- oral shorter regimens
- New tools (XDR Cartridge) and people centered care, support measures (accompaniment, financial, nutritional, psychosocial, stigma etc.)

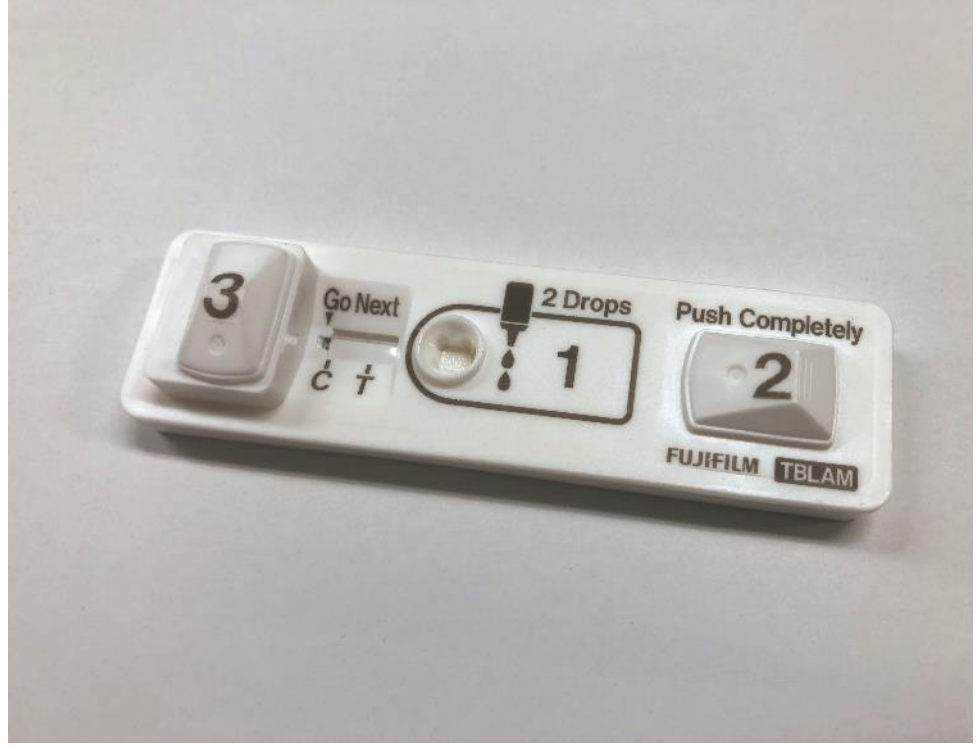
TB REACH DAT Projects



- 14 Projects across many populations and product types
- Providing national and global understanding of implementation issues
- Meta-analysis on adherence data, costing, feasibility and acceptability
- Scaled up with Unitaid, Global Fund
- Available through GDF

TB REACH Innovations
New Diagnostics

- Non-sputum-based tests are desperately needed and can help bring testing closer to point of need
- WHO currently recommends the TB LAM assay from Alere for PLWH
- Low sensitivity and high costs limit broad use
- Fujifilm TB-LAM has undergone several clinical studies with FIND
- TB REACH is supporting partners looking to use the product in their programs to be prepared for potential new WHO guidance in multiple populations



Journal of *Clinical Medicine*
MDPI

Article

Fujifilm SILVAMP TB-LAM for the Diagnosis of Tuberculosis in Nigerian Adults

Patricia Comella-del-Barrio [1], John S. Bimba [2], Ramota Adelakun [3], Konstantina Kontogianni [3],

Journal of *Clinical Medicine*
MDPI

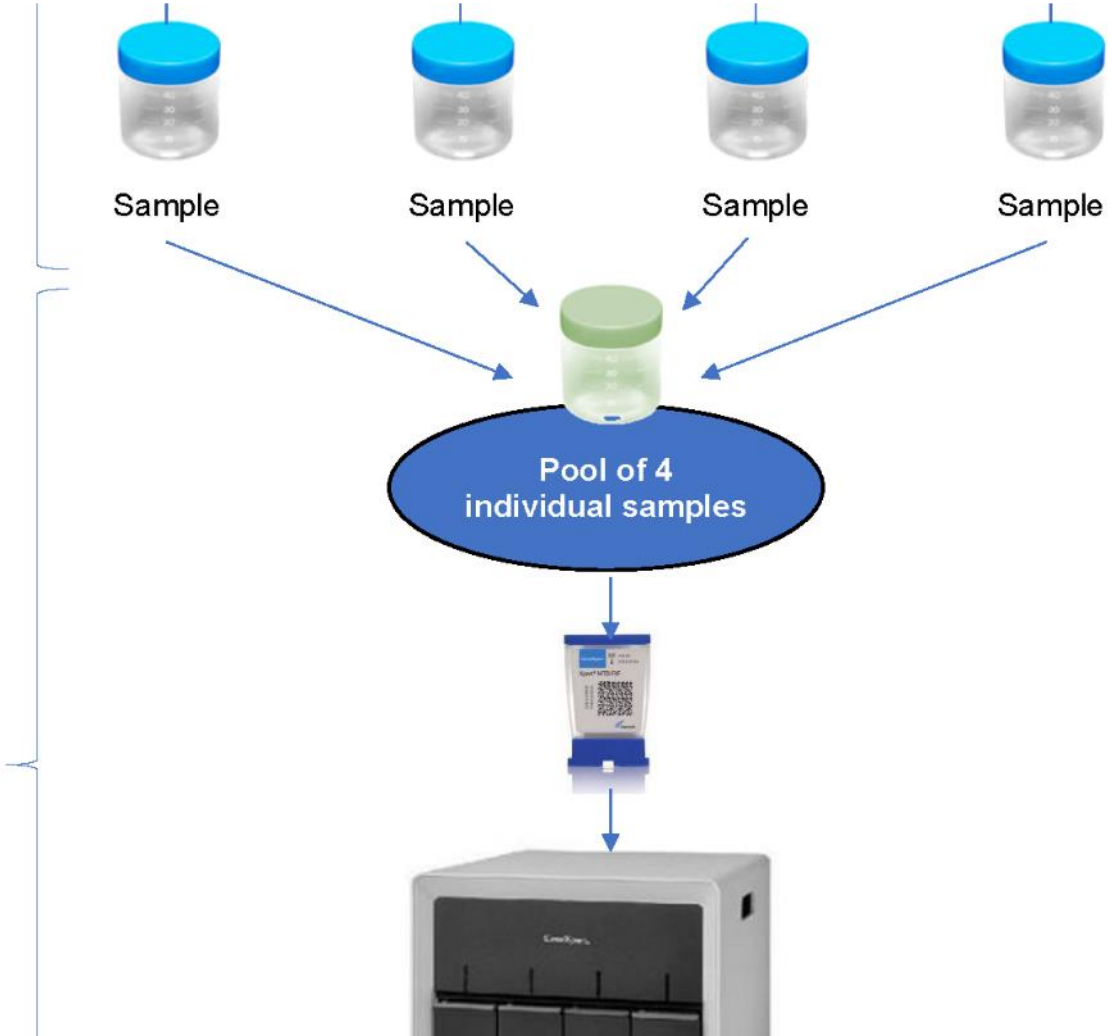
Article

Diagnostic Performance of the Fujifilm SILVAMP TB-LAM in Children with Presumptive Tuberculosis

Patricia Comella-del-Barrio [1], Bárbara Molina-Moya [1], Jacqueline Gautier [2], Raquel Villar-Hernández [1],

Systematic Review of Pooling Sputum as an Efficient Method for Xpert MTB/RIF Tuberculosis Testing during COVID-19 Pandemic

Luis E. Cuevas, Victor S. Santos, Shirley Verônica Melo Almeida Lima,

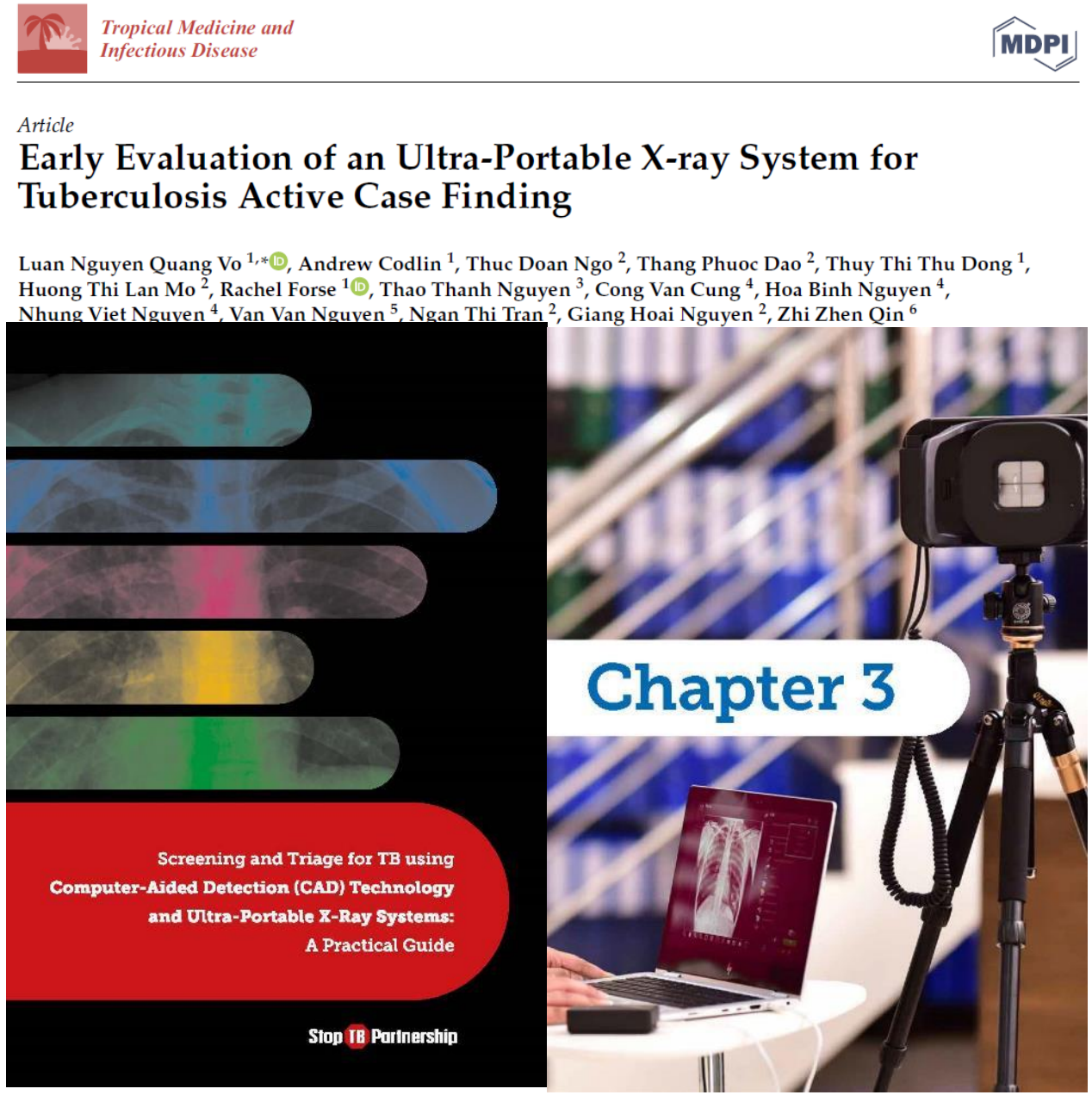


Innovations: Pooled Testing

- Pooling used by many disease testing approaches (HIV, STI)
- Xpert is expensive, remains a small fraction of total diagnostic tests
- COVID-19 brought additional strains to testing platforms and staff
- Evaluation studies conducted in Cambodia, Nigeria, Laos, Brazil, Tanzania show good results
- Cameroon using in routine testing
- Per person cost to test on Xpert - less than USD 6

TB REACH – Ultra Portable X-Ray

- Mobile screening → Ultra portable CXR
- Reach more remote areas with CXR
- Huge interest from the TB community
- Potential issues around importation, emissions and safety, performance
- TB REACH grantees already generating evidence in India, Zambia, Pakistan, Vietnam
- Stop TB developed a Guide on using ultra-portable x-ray and AI based on documentation of early experiences
- Available now in GDF catalogue



TB REACH Innovations – Artificial Intelligence

- WHO TB Screening Guidelines recommend AI can replace human readers
- But many new entrants in AI field- how to know which one to choose?
- Stop TB leading analytics with multiple evaluations across settings
- New evaluations planned with different populations and applications

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Tuberculosis detection from chest x-rays for triaging in a high tuberculosis-burden setting: an evaluation of five artificial intelligence algorithms

Zhi Zhen Qin, Shahriar Ahmed, Mohammad Shahnewaz Sarker, Kishor Paul, Ahammad Shafiq Sikder Adel, Tasneem Naheyan, Rachael Barrett, Sayera Banu, Jacob Creswell**

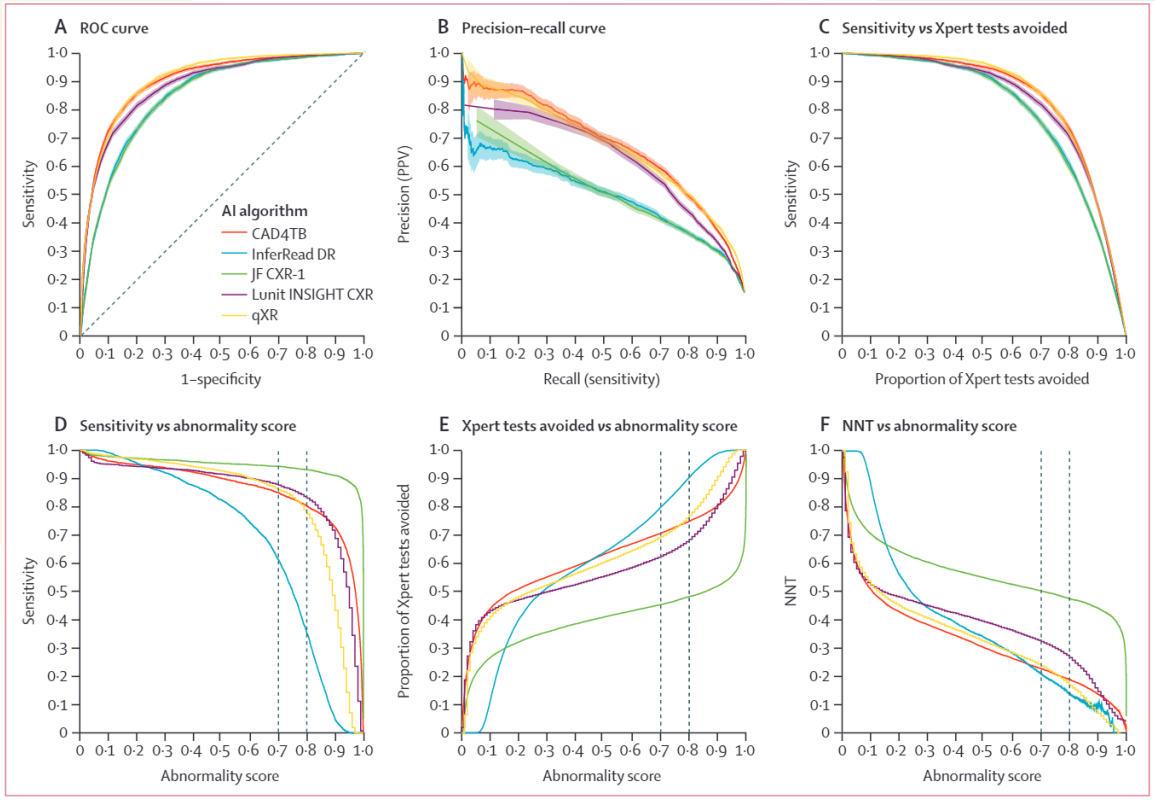

Figure 2: Performance metrics between AI algorithms

TB REACH Innovations – Truenat

- WHO recommended in 2020 – similar performance to Xpert (MTB/RIF and Ultra)
- Similar performance to Xpert, more portable and potential to be used at lower levels of care
- Outside of FIND's demonstration study and India, little published evidence
- Performance among PLWH is not documented
- Cameroon, Vietnam and Nigeria to document feasibility as well as performance
- Contributed to Stop TB's Practical Guide on Truenat testing

TB REACH and COVID-19

- Dopasi, 2021 Kochon prize recipient, advocacy and health systems, active screening for both diseases
- IRD VN screened for TB and Covid at vaccination sites using portable CXR and AI for both from Qure.ai.
- FIND used outreach in Karnataka with women led self affinity groups
- 70% of all people with B+ TB in 4 districts found through outreach

TB REACH 2022 – New Funding

FCDO UK has committed to support the TB REACH initiative in 2022-2024

- Grant with Global Affairs Canada closes in December
- Discussions with other potential donors including GAC, USAID, Japan
- Launch Wave 10 in Q1 2022
- Potential focus areas include TPT and integrated screening
- Working with Global Fund and others for uptake and scale
- Wave 8 and Wave 9 projects will run in 2022-2023

TB REACH: Case for Investment

TB REACH – Case for Investment

TB REACH is the only global mechanism which focuses on providing TB services to the most vulnerable populations, those that do not have good access to health services. More than 80% of funding goes directly to in-country partners for care delivery.

People Reached

- More than 40 million people screened
- Detection and treatment of more than 2.6 million people with TB
- Prevented more than 15 million infections

Funding Leveraged

- TB REACH interventions have been brought to scale, leveraging more than US$180 million in support from other donors from Global Fund, USAID, Unitaid and others

What we can do

- The TB REACH Investment Case: spend $300, save one human life
- Support efforts to test over 10 million and detect and treat more than 1 million people with TB, saving 500,000 lives.

THE NEED

- USD 150 Million over the next 5 years

Thank You

The Stop TB Partnership's TB REACH initiative has been generously supported by Global Affairs Canada since its inception in 2010

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