# READ-It evidence is informing Siguidelines and changing practice for people with TB worldwide

The Research, Evidence and Development Initiative (READ-It) provides core sustained financial support to institutions in South Africa, India, Norway, and the UK, to do evidence synthesis and related activities aimed at improving health outcomes in the poor and vulnerable in low- and middle-income countries (LMICs). **Tuberculosis (TB)** continues to cause great suffering worldwide and is one of READ-It's focus areas of work. We cover key policy areas which include screening, diagnosis, and treatment of drug-sensitive and drug-resistant TB. In addition, we have a growing research expertise exploring and understanding perspectives of patients, communities, and implementers affected by TB interventions and policies.

Here, we describe TB outputs in four areas, enabled by READ-It over a 5-year period.



**Conclusion:** READ-It researchers partnered with global and national policymakers to conduct responsive systematic reviews across a range of priority TB policy questions.





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# **Supporting information**

### 1. High-impact reviews

#### Produced 24 publications addressing high-priority TB issues:

#### • 17 Cochrane and 6 non-Cochrane reviews

#### ► 4 screening reviews

- Symptom- and chest-radiography screening for active pulmonary tuberculosis in HIV-negative adults and adults with unknown HIV status
- Screening tests for active pulmonary tuberculosis in children
- Xpert MTB/RIF and Xpert Ultra assays for screening for pulmonary tuberculosis and rifampicin resistance in adults irrespective of signs or symptoms
- Contact tracing strategies in household and congregate environments to identify cases of tuberculosis in low- and moderateincidence populations

#### 6 diagnosis reviews

- <u>Xpert MTB/RIF Ultra and Xpert MTB/RIF assays for extrapulmonary tuberculosis and rifampicin resistance in adults</u>
- <u>Xpert Ultra versus Xpert MTB/RIF for pulmonary tuberculosis and rifampicin resistance in adults with presumptive pulmonary tuberculosis</u>
- <u>Xpert MTB/RIF Ultra assays for tuberculosis disease and rifampicin resistance in children</u>
- Xpert MTB/XDR for detection of pulmonary tuberculosis and resistance to isoniazid, fluoroquinolones, ethionamide, and amikacin
- Lateral flow urine lipoarabinomannan assay for detecting active tuberculosis in people living with HIV
- <u>Abdominal ultrasound for diagnosing abdominal tuberculosis or disseminated tuberculosis with abdominal involvement in</u> <u>HIV-positive individuals</u>

#### 8 intervention reviews

- □ Shortened treatment regimens versus the standard regimen for drug-sensitive pulmonary tuberculosis
- Linezolid for drug-resistant pulmonary tuberculosis
- Impact of diagnostic strategies for tuberculosis using lateral flow urine lipoarabinomannan assay in people living with HIV
- Impact of the diagnostic test Xpert MTB/RIF on patient outcomes for tuberculosis
- MVA85A vaccine to enhance BCG for preventing tuberculosis
- Strategies to detect and manage latent tuberculosis infection among household contacts of pulmonary TB patients in high TB burden countries - a systematic review and meta-analysis
- <u>Active case finding for tuberculosis in India: a syntheses of activities and outcomes reported by the National Tuberculosis</u> <u>Elimination Programme</u>
- Variation in the observed effect of Xpert MTB/RIF testing for tuberculosis on mortality: a systematic review and analysis of trial design considerations
- ► 5 qualitative evidence synthesis reviews
  - Community views on active case finding for tuberculosis in low- and middle-income countries: a qualitative evidence synthesis
  - <u>Rapid molecular tests for tuberculosis and tuberculosis drug resistance: a qualitative evidence synthesis of provider and</u>
    <u>recipient views</u>
  - Factors contributing to pre-treatment loss to follow-up in adults with pulmonary tuberculosis: a qualitative evidence synthesis of patient and healthcare worker perspectives
  - Patient adherence to tuberculosis treatment in the Indian subcontinent: systematic review and meta-synthesis of qualitative research
  - Repairing boundaries along pathways to tuberculosis case detection: a qualitative synthesis of intervention designs
- 1 Cochrane Special Collection: diagnosing tuberculosis

# 2. Impacting guidelines

#### Informed global and national guidelines:

- 7 reviews informed global guidelines on TB priority policy areas
  - ► WHO Consolidated guidelines on TB:
    - <u>Module 2: Screening Systematic screening for tuberculosis disease</u>
    - Module 3: Diagnosis Rapid diagnostics for tuberculosis detection
    - Module 4: Treatment Drug-Resistant Tuberculosis Treatment
    - Module 5: Management of TB in children and adolescents
  - Lateral flow urine lipoarabinomannan assay (LF-LAM) for the diagnosis of active tuberculosis in people living with HIV (2019 Update)

#### • At least 13 reviews impacted 8 national guidelines in Ukraine, Canada, South Africa, Malaysia, Russia, and the UK

- 1. <u>Clinical management of rifampicin-resistant tuberculosis updated clinical reference guide</u>. September 2023. Department of Health, Republic of South Africa.
- 2. <u>Tuberculosis, Evidence-based clinical guideline</u> (January 2023) [<u>Tuberculosis, Evidence-based clinical guideline</u>] The State Expert Center of the Ministry of Health of Ukraine Publication date: January 2023
- 3. British HIV Association guidelines for the management of tuberculosis in adults living with HIV 2018 (2023 interim update)
- 4. <u>Canadian Tuberculosis Standards (8th Edition) Chapter 7: Extra-pulmonary tuberculosis</u> Barss, Connors, Fisher. Canadian Thoracic Society, Public Health Agency of Canada Publication date: March 2022 DOI: 10.1080/24745332.2022.2036073
- [S2K Guideline: Tuberculosis in Adults] Schaberg, Brinkmann, Feiterna-Sperling, Geerdes-Fenge, Haas, Hartmann, Häcker, Hauer, Heyckendorf, Lange, Maurer, Nienhaus, Otto-Knapp, Priwitzer, Richter, Salzer, Schoch, Schönfeld, Stahlmann, Bauer Deutsche Gesellschaft für Pneumologie und Beatmungsmedizin (DGP) Publication date: June 2022
- 6. <u>Clinical Practice Guidelines on Management of Tuberculosis (4th Edition)</u> Ministry of Health Malaysia, Academy of Medicine Malaysia Publication date: 2021
- 7. [Clinical guidelines: HIV infection in pregnant women] National Virological Association, Russian Association of Perinatal Medicine Specialists, Russian Society of Obstetricians and Gynecologists, Moscow Society of Obstetricians and Gynecologists, (approved by the Scientific and Practical Council of the Ministry of Health of the Russian Federation) Publication date: February 2022
- [Clinical guidelines: Tuberculosis in adults] Russian Society of Phthisiatricians, Association of Phthisiatricians, (approved by the Scientific and Practical Council of the Ministry of Health of the Russian Federation) Publication date: March 2022

#### Methodologist support for 4 WHO TB guidelines

- ▶ WHO Consolidated guidelines on TB:
  - □ <u>Module 2: Screening Systematic screening for tuberculosis disease</u>
  - Module 3: Diagnosis Rapid diagnostics for tuberculosis detection
  - Description: Module 4: Treatment Drug-Resistant Tuberculosis Treatment
  - <u>Module 5: Management of TB in children and adolescents</u>

## 3. Contextual understanding

Systematic reviews addressing important contextual issues:

- 5 qualitative evidence synthesis reviews highlighted healthcare worker and patient views around TB diagnostic tests, treatment and adherence, and study methods
  - Community views on active case finding for tuberculosis in low- and middle-income countries: a qualitative evidence synthesis
  - Rapid molecular tests for tuberculosis and tuberculosis drug resistance: a qualitative evidence synthesis of provider and recipient views
  - Factors contributing to pre-treatment loss to follow-up in adults with pulmonary tuberculosis: a qualitative evidence synthesis of patient and healthcare worker perspectives
  - Patient adherence to tuberculosis treatment in the Indian subcontinent: systematic review and meta-synthesis of qualitative research
  - Repairing boundaries along pathways to tuberculosis case detection: a qualitative synthesis of intervention designs

