



# SYSTEMATIC SCREENING FOR TB DISEASE

2015

2021

2022

2030



THE CLOCK IS TICKING



## BACKGROUND

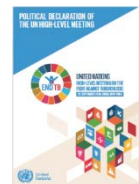


Each year approximately **10 million people** fall ill with TB globally and **1.4 million people** die from this preventable and curable disease. Nearly **3 million people** were not diagnosed with the disease in 2019, or were not officially reported to national authorities. Many of those at highest risk of TB have little to no access to health care.



The **WHO End TB Strategy** seeks to **reach all people with TB prevention and care.**

**Recommended actions include systematic screening for TB disease** for groups at highest risk, in combination with provision of TB preventive treatment (TPT) for those who could benefit from it, including people living with HIV and contacts of people with TB. Linking screening with TPT as part of the preventive care pathway and efforts by countries to end TB is essential.



In the **UN High Level Meeting on TB in 2018**, Members States committed to diagnosing and treating **40 million people with TB** and initiating **30 million people on TB preventive treatment by 2022.**

In 2019, countries identified **9.8 million contacts of bacteriologically confirmed pulmonary people with TB**, of whom **5.6 million (57%) were screened** for TB disease and infection. Reinvigorated efforts by governments, health services and donors will be needed to scale up TPT to the numbers envisaged by the UN High Level Meeting in 2018.

## IMPORTANCE OF SYSTEMATIC SCREENING FOR TB DISEASE

Systematic screening for TB disease is *the systematic identification of people at risk for TB disease, in a predetermined target group, by assessing symptoms and using tests, examinations or other procedures that can be applied rapidly.*

**Systematic screening can benefit people who are at risk of getting TB**, as early detection and start of treatment can improve their outcomes and reduce their costs. It can also benefit entire communities at higher risk for TB, by reducing the prevalence of TB disease and preventing future cases.

**Screening can bypass many of the barriers that people face in accessing health care**, by providing a direct pathway to care. Without screening, TB will only get detected if people present to health care centres when they are ill. Screening can thus reduce delays in diagnosing TB and reduce costs and the risk of catastrophic costs among those who fall ill with TB.

The following groups should always be screened for TB:

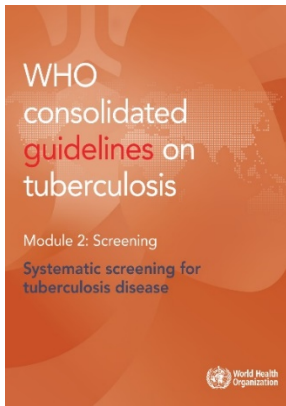
- Household and close contacts of people with TB,
- People living with HIV,
- People in prisons and penitentiary institutions,
- People exposed to silica (mainly miners).

**Community-wide screening** can also be beneficial in populations at higher risk for TB and with limited access to health care, such as urban poor communities, homeless communities, migrants, refugees, remote isolated communities, and other vulnerable or marginalized groups.



# WHO GUIDELINES AND OPERATIONAL GUIDE ON SYSTEMATIC SCREENING FOR TB DISEASE

## GUIDELINES

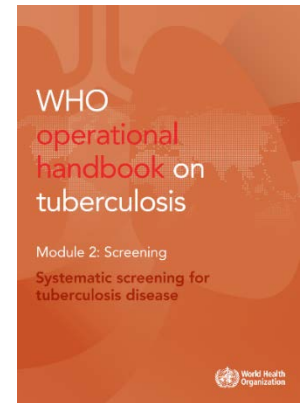


The 2021 update of the TB screening guidelines contain a set of 17 new and updated recommendations. These recommendations

- identify contacts of TB patients, people living with HIV, people exposed to silica, prisoners and other key populations to be prioritized for TB screening
- propose different tools for screening, namely symptom screening, chest radiography, computer-aided detection (CAD) software, molecular WHO-approved rapid diagnostic tests, and C-reactive protein.

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## HANDBOOK



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Screening can be done using a variety of tools:

- **Chest radiography** is a highly sensitive screening tool, that can help detect TB early, often before symptoms. It can help rule out TB before initiating TPT.
- **Computer-aided detection (CAD)** software can be used in place of trained staff for interpretation of digital chest radiography, in places where skilled personnel are scarce or not available.
- **Molecular WHO-recommended rapid diagnostic tests** (mWRDs like Xpert MTB/RIF® or Truenat®) can be used for screening, including among people living with HIV.
- **C-Reactive Protein**, a point-of-care blood test for inflammation, can be used to screen for TB among people living with HIV.
- **Symptom screening** is a rapid, affordable, and feasible screening option that can be implemented in all settings and easily repeated.

The new recommendations are being released as part of a **modular series of WHO guidance on the programmatic management TB** and are accompanied by a **complementary operational handbook** that provides implementation guidance.

The **operational handbook** discusses the **essential steps in designing and implementing a TB screening programme**. It also contains possible screening algorithms for the general population and high-risk groups, for adults and adolescents living with HIV, and for children.

In addition, WHO provides web-based tools to assist with planning and implementation of screening activities:

- **ScreenTB** – assists countries to prioritize risk groups for screening and choosing screening algorithms;
- **CAD for TB detection** – helps countries to calibrate CAD technologies for new settings.



World Health Organization