The WHO global task force on tuberculosis impact measurement

JULY 2024

Background

The Global Tuberculosis Programme (GTB) in the World Health Organization (WHO) established a Global Task Force on TB Impact Measurement in 2006. The TB monitoring, evaluation and strategic information (TME) unit in GTB is the secretariat.

The Task Force brings together experts in TB epidemiology, statistics and modelling, representatives from national TB programmes and ministries of health, and people from major technical and financial agencies. More than 30 meetings and workshops have been held since its inception.

The initial aim of the Task Force was to ensure that WHO’s assessment of whether the 2015 global TB targets for reductions in TB disease burden were achieved was rigorous, robust and consensus-based. Following publication of this assessment in the 2015 Global TB Report, and in the context of the WHO End TB Strategy (2016–2035) and the United Nations (UN) Sustainable Development Goals (2016–2030), the Task Force updated its purpose and strategic areas of work for the post-2015 period.
The 2020 milestones of the EndTB Strategy were a 35% reduction in the absolute number of TB deaths and a 20% reduction in the TB incidence rate (new cases per 100,000 population per year) compared with levels in 2015, and that no people with TB and their households face catastrophic costs as a result of TB disease. The 2025 milestones are a 75% reduction in TB deaths and a 50% reduction in the TB incidence rate, compared with levels in 2015.

**TARGETS**

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<th>Reduction in the number of TB deaths compared with 2015 (%)</th>
<th>2030 †</th>
<th>2035</th>
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<td>90% 95%</td>
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<th>Reduction in the TB incidence rate compared with 2015 (%)</th>
<th>2030 †</th>
<th>2035</th>
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<td>80% 90%</td>
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<th>TB-affected households facing catastrophic costs due to TB (%)</th>
<th>2030 †</th>
<th>2035</th>
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<td>0% 0%</td>
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* Milestones were defined for 2020 and 2025.
† Targets linked to the UN Sustainable Development Goals. SDG target 3.3 is to end the TB epidemic by 2030.

**Purpose**

The Task Force’s purpose is:

1. To ensure robust, rigorous and consensus-based assessment of progress towards the milestones and targets for reductions in TB disease burden set in the WHO End TB Strategy and UN Sustainable Development Goals and, ultimately, assessment of whether or not these are achieved.

2. To guide, promote and support the analysis and use of TB surveillance and survey data for policy, planning and programmatic action.

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Progress made towards the 2025 milestones of the End TB Strategy by the end of 2022

Current strategic areas of work

1. Strengthening surveillance
   - National systems for TB surveillance, for direct measurement of TB incidence
   - National or sample vital registration (VR) systems, for direct measurement of the number of deaths caused by TB

2. Priority studies to periodically measure TB disease burden
   These include (but are not limited to):
   - National TB prevalence surveys
   - National TB inventory studies
   - Surveys of anti-TB drug resistance
   - Surveys of costs faced by TB patients and their households

3. Periodic review of methods used by WHO to produce estimates of the burden of TB disease

4. Analysis and use of TB surveillance and survey data at country level
1: Strengthening surveillance

Priority areas of work identified by the Task Force are:

**Strengthening national systems for TB surveillance, for direct measurement of TB incidence**
1. TB epidemiological reviews, including use of the WHO TB surveillance checklist.
2. Transitioning from paper to digital case-based surveillance.
3. TB inventory studies to measure under-reporting of people diagnosed with TB.

**Strengthening vital registration (VR) systems, for direct measurement of the number of deaths caused by TB**
1. Promoting use of VR data for measurement of TB mortality.
2. Creating and sustaining links with relevant stakeholders.
3. Mortality studies to validate VR data.

Between January 2013 and June 2024, 106 countries completed the TB surveillance checklist and a national TB epidemiological review (map). A mobile application to disseminate findings from these assessments is available. New WHO guidance on TB surveillance, including a second edition of the WHO TB surveillance checklist, was published in 2024.
2: Priority studies to periodically measure TB disease burden

A. NATIONAL TB PREVALENCE SURVEYS

Between 2007 and June 2024, 36 national surveys of the prevalence of TB disease were implemented in 32 countries (map), following guidance in the Tuberculosis prevalence surveys handbook (second edition: the “lime book”). Cambodia completed its third national survey in May 2024, and Timor-Leste completed its first survey in 2023. Bangladesh, Ethiopia, Kenya, Ghana, Malawi, Nigeria, Pakistan, Uganda, United Republic of Tanzania, Thailand, Zambia and Zimbabwe are considering a repeat survey to assess their progress towards the 2025 and 2030 milestones and targets. Mobilization of the funding required for these surveys is currently a major challenge.

WHO has published a book that provides a global synthesis of results and lessons learned from surveys implemented 2007–2016; this was developed as a collaborative effort of 24 countries and their technical partners, with contributions from more than 450 people.

Updated WHO guidance will be published in 2024.
2: Priority studies to periodically measure TB disease burden

B. NATIONAL TB INVENTORY STUDIES

The Assessing tuberculosis under-reporting through inventory studies guide, published in 2012, describes and explains how to design, implement and analyse inventory studies to measure the under-reporting of people diagnosed with TB, and if certain conditions are met, to estimate TB incidence using capture-recapture methods.

Inventory studies are of particular relevance in countries with large private sectors or where large numbers of people with TB are thought to be treated in the public sector but not reported to national authorities.

By June 2024, an inventory study had been completed in 20 countries. A repeat study was recently completed in Indonesia. Others are planned in Cambodia, Mongolia, Peru and the Philippines (map).
2: Priority studies to periodically measure TB disease burden

C. SURVEYS OF ANTI-TB DRUG RESISTANCE

Approaches to surveillance are described and explained in the Guidance for the surveillance of drug resistance in tuberculosis (6th ed: 2021). Practical guidance for incorporating sequencing is provided in The use of next-generation sequencing for the surveillance of drug-resistant tuberculosis: an implementation manual.

By June 2024, 164 WHO Member States had continuous national surveillance systems based on routine drug susceptibility testing of people with TB and 23 countries relied on nationally (or sub-nationally) representative surveys.


Overall, 61 countries have implemented at least one nationally representative survey over the past 16 years (since 2008) (map).
2: Priority studies to periodically measure TB disease burden

D. SURVEYS OF COSTS FACED BY PEOPLE WITH TB AND THEIR HOUSEHOLDS

Guidance on how to conduct nationally representative surveys of costs faced by people with TB and their households, and to assess whether these costs are catastrophic, was published by WHO in 2017. Updated guidance will be published in 2024.

In June 2024, 35 countries had completed a survey (map), and 14 were ongoing: Bangladesh, Central African Republic, Chile, Congo, Guinea, Honduras, Malawi, Mozambique, Nepal, Pakistan, Rwanda, Somalia, Togo and Viet Nam (repeat survey). Ethiopia, India, Japan and the Republic of Korea are planning a first survey; Brazil and Myanmar are planning repeat surveys.

In 2023, WHO published a book that provides a global synthesis of results and lessons learned from surveys implemented in 2015–2021.
3: Methods to estimate TB disease burden

The latest methods used by WHO were documented in the Global Tuberculosis Report 2023. Global estimates are shown below.

By the end of 2022, 21 countries achieved estimated reductions of TB incidence of around 50% or more between 2015 and 2022. The biggest reductions were in the WHO African and European regions of 23% and 25%, respectively.

By the end of 2022, 47 countries achieved estimated reductions of the number of TB deaths of at least 35% between 2015 and 2022. The biggest reductions were in the WHO African and European regions of 38% and 32%, respectively.

4: Analysis and use of data at country level

The Understanding and using tuberculosis data handbook provides guidance on recommended routine analyses of TB-relevant data, especially data from national notification and vital registration systems, and data from periodic surveys.

Resources are available to support countries with the transition from paper-based aggregate reporting to digital case-based TB surveillance. These include WHO DHIS2 TB packages that are designed for the collection, analysis, visualisation, use and reporting of routine case-based or aggregated TB data related to notifications, household contact tracing and laboratory testing.

More recently, global tools and e-courses have been developed to support the analysis and used of routine health facility data.
Major partners

NATIONAL TB PROGRAMMES OF MANY COUNTRIES

WEBSITE:
www.who.int/groups/global-task-force-on-tb-impact-measurement

EMAIL:
tbdata@who.int

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