In June 2006, the Global TB Programme (GTB in the World Health Organization (WHO) established a Global Task Force on TB Impact Measurement, with the TB monitoring, evaluation and strategic information (TME) unit in GTB acting as the secretariat.

The Task Force includes a wide range of experts in TB epidemiology, statistics and modelling, representatives from major technical and financial partners and representatives from countries with a high burden of TB. There have been seven full Task Force meetings since its inception and many other meetings on specific topics.

The initial aim of the Task Force was to ensure that WHO’s assessment of whether the 2015 global TB targets 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 End TB Strategy (2016-2035) and the Sustainable Development Goals (2016-2030), the Task Force reviewed and updated its mission and strategic areas of work for the post-2015 era.
The 2020 milestones of the End TB strategy are a 35% reduction in TB deaths and a 20% reduction in the TB incidence rate compared with levels in 2015, and that no TB patients 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 TB incidence.

The first United Nations high-level meeting (UNHLM) on TB in 2018 set additional targets to treat 40 million people with TB disease and at least 30 million people with TB infection between 2018 and 2022.

**WHAT IS OUR MISSION?**

In the context of the End TB Strategy and the Sustainable Development Goals (SDGs), the Task Force’s mission is:

1. To ensure that assessments of progress towards End TB Strategy and SDG targets and milestones at global, regional and country levels are rigorous, robust and consensus-based.

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

The 2020 milestones of the End TB strategy are a 35% reduction in TB deaths and a 20% reduction in the TB incidence rate compared with levels in 2015, and that no TB patients 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 TB incidence.

The first United Nations high-level meeting (UNHLM) on TB in 2018 set additional targets to treat 40 million people with TB disease and at least 30 million people with TB infection between 2018 and 2022.

**TARGETS**

<table>
<thead>
<tr>
<th>Target Description</th>
<th>2030 †</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in the number of TB deaths compared with 2015 (%)</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>Reduction in TB incidence rate compared with 2015 (%)</td>
<td>80%</td>
<td>90%</td>
</tr>
<tr>
<td>TB-affected households facing catastrophic costs due to TB (%)</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Milestones have been defined for 2020 and 2025.† Targets linked to the Sustainable Development Goals. SDG target 3.3 is to end the TB epidemic by 2030.
Progress towards End TB Strategy milestones for 2020 and the two UNHLM targets for treatment enrolment: status at the end of 2019

FOUR STRATEGIC AREAS OF WORK, 2021-2025

PROVISIONAL: TO BE REVIEWED AND FINALIZED AT THE NEXT TASK FORCE MEETING*

1. Strengthening surveillance
   • National systems for TB surveillance
   • National vital registration (VR) systems

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

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

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

The ultimate goal is that all countries can reliably track their TB epidemics (in terms of incidence and mortality) using data from national surveillance systems that meet quality and coverage standards.

*A Task Force meeting originally scheduled for April 2020, at which updated strategic areas of work were to be discussed, was postponed due to the COVID-19 pandemic.
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. Regional analysis workshops.
3. Transitioning from paper to digital case-based surveillance.
4. TB inventory studies to measure under-reporting of detected TB cases.

Strengthening national vital registration (VR) systems, for direct measurement of TB mortality
1. Promote use of VR data for measurement of TB mortality.
2. Create and sustain links with relevant stakeholders.
3. Mortality studies to validate VR data.

Between January 2013 and May 2021, 85 countries completed the TB surveillance checklist and a national TB epidemiological review (map); results and lessons learned have been synthesized in a Task Force background document. A second edition of the WHO TB surveillance checklist is in development.
INVENTORY STUDIES TO MEASURE UNDER-REPORTING OF DETECTED TB CASES

Estimates of TB incidence rely on the systematic analysis of case notification and programmatic data combined with assessment of the number of cases not reported and not diagnosed. 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 detected TB cases.

Inventory studies are being promoted in selected countries, linked to recommendations following national TB epidemiological reviews and use of the TB surveillance checklist. They are of particular relevance in countries with large private sectors or where large numbers of TB patients are thought to be treated in the public sector but not reported to national authorities.

By May 2021, an inventory study has been completed in 19 countries. Inventory studies have started in the Philippines, South Africa and United Republic of Tanzania and are planned in Afghanistan, Cambodia, Malaysia, Mongolia, Peru and Ukraine (map).
Between 2007 and 2020, 33 national surveys of the prevalence of TB disease were implemented in 30 countries (map), following guidance in the *Tuberculosis prevalence surveys handbook* (2nd ed: the “lime book”) developed by the Task Force. India started a survey in 2019 but implementation has been seriously impacted by the COVID-19 pandemic. Botswana is planning its first survey; Cambodia, Indonesia and Pakistan are planning a repeat survey.

In 2021, WHO 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.

A 3rd edition of the WHO handbook on TB prevalence surveys is in development.
B. SURVEYS OF ANTI-TB DRUG RESISTANCE

The Global Project on Anti-TB Drug Resistance Surveillance was launched in 1994. Its aims are to estimate the magnitude of drug resistance among TB patients and determine trends over time. Approaches to surveillance are described and explained in the Guidance for the surveillance of drug resistance in tuberculosis (6th ed: 2021).

Between 2020 to May 2021, 3 countries completed a drug resistance survey (DRS). Mali and Timor-Leste completed their first nationwide survey, and Malawi completed a repeat survey.

By May 2021, 123 WHO member states had continuous national surveillance systems based on routine drug susceptibility testing of TB patients and 53 countries relied on nationally (or sub-nationally) representative surveys. Overall, 68 countries have implemented at least one nationally representative (or subnational) survey since 2007. In May 2021, 12 countries were planning or implementing a survey (map).
2: PRIORITY STUDIES TO MEASURE TB DISEASE BURDEN

C. TB PATIENT & HOUSEHOLD COST SURVEYS

A handbook to support countries to conduct nationally representative surveys of costs faced by TB patients and their households, and to assess whether these costs are catastrophic, was published by WHO in 2017.

In May 2021, 20 countries had completed a survey (Benin, China, DR Congo, Fiji, Ghana, Kenya, Lao PDR, Lesotho, Mongolia, Myanmar, Nigeria, Papua New Guinea, Philippines, Republic of Moldova, Solomon Islands, Timor-Leste, Uganda, United Republic of Tanzania, Viet Nam and Zimbabwe), and 7 other countries had started a survey. An additional 31 are planning a survey (map).

The surveys inform policy discussions on how to improve TB services and their financing, and how to advance universal health coverage and enhance social protection, with the overall aim of eliminating catastrophic costs due to TB disease.

A book that will provide a global synthesis of results and lessons learned from surveys implemented 2015--2020 is in development.
3: METHODS TO ESTIMATE DISEASE BURDEN

Methods used by WHO to translate surveillance and survey data into estimates of TB incidence and mortality need to be periodically reviewed. The latest methods are documented in WHO’s *Global Tuberculosis Report* (2020).

The first milestones of the End TB Strategy, set for 2020, are a 35% reduction in the absolute number of TB deaths and a 20% reduction in the TB incidence rate, compared with levels in 2015.

Globally between 2015 and 2019, the number of TB deaths fell 14% and the TB incidence rate declined by 9%; the world is not on track to reach the 2020 milestones.

By the end of 2019, seven high TB burden countries were assessed to have reached the 2020 milestone for TB incidence: Cambodia, Ethiopia, Kenya, Namibia, the Russian Federation, South Africa and the United Republic of Tanzania. The WHO European region is on track to do so in 2020.

By the end of 2019, seven high TB burden countries were assessed to have reached the 2020 milestone for TB deaths: Bangladesh, Kenya, Mozambique, Myanmar, the Russian Federation, Sierra Leone and the United Republic of Tanzania. The WHO European region is on track to do so in 2020.

4: ANALYSIS AND USE OF DATA AT COUNTRY LEVEL

Understanding and using tuberculosis data is a handbook that provides advice on analysis of TB-relevant data, especially surveillance data from national notification and vital registration systems, and data from periodic surveys.

A comprehensive WHO digital package is available to support countries with the transition from paper to digital TB surveillance and the routine analysis and use of TB data for action. The package includes DHIS2 TB modules (metadata and analytical dashboards) for aggregated and case-based TB data, as well as a curriculum, comprising a guidance document and exercise book on the use and interpretation of data.

The WHO digital package for TB was developed alongside packages for other disease programmes (e.g. HIV, malaria, immunization) Under the umbrella of the Health Data Collaborative.

By May 2021, the WHO digital module for aggregated TB data had been installed in 25 countries and a further 20 had expressed interest. The case-based digital module for TB is being piloted in 5 countries. More than 65 countries have stored historical national and subnational TB surveillance data in a DHIS2 platform (tbhistoric.org) developed by WHO.

For news and updates from the TB Modelling and Analysis Consortium (TB MAC), please visit tb-mac.org.