Introduction, overview, broader context

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(GTB/TME)
1. Introduction
WHO Global Task Force on TB Impact Measurement

NTPs of many countries

Convened by:
WHO/GTB/TME

Chair:
Jaap Broekmans

The Global Fund
To Fight AIDS, Tuberculosis and Malaria

KIT | Health

KNCV
To eliminate TB

London School of Hygiene & Tropical Medicine

Public Health England

USAID
From the American People

The University of Sheffield

Bill & Melinda Gates Foundation

Yale

European Centre for Disease Prevention and Control
Mandate
2016–2020

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

2. To guide, promote and support the analysis and use of TB data for policy, planning and programmatic action
UN Sustainable Development Goals
WHO End TB Strategy

Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

Goal: End the global TB epidemic

Common aim: end the global TB epidemic
End TB Strategy
Targets (2030, 2035) and milestones (2020, 2025)

**Incidence**
- 20% reduction by 2020
- 4–5% per year by 2020
- 50% reduction
- 80% reduction by 2030
- 90% reduction

**TB deaths**
- 35% reduction
- Case fatality ratio (CFR) 10% by 2020
- 75% reduction
- 90% reduction by 2030
- 95% reduction
## Indicators and targets

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>MILESTONES</th>
<th>TARGETS</th>
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<tbody>
<tr>
<td></td>
<td>2020</td>
<td>2025</td>
</tr>
<tr>
<td>1. Reduction in number of TB deaths compared with 2015 (%)</td>
<td>35%</td>
<td>75%</td>
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<tr>
<td>2. Reduction in TB incidence rate compared with 2015 (%)</td>
<td>20%</td>
<td>50%</td>
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<tr>
<td>3. Percentage of TB patients and their households facing catastrophic costs due to TB</td>
<td>Zero</td>
<td>Zero</td>
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Five strategic areas of work
2016–2020

1. Strengthening national notification systems for direct measurement of TB incidence*

2. Strengthening national vital registration systems for direct measurement of TB deaths

3. Priority studies to periodically measure TB disease burden, including
   - National TB prevalence surveys
   - Drug resistance surveys
   - TB patient/household cost surveys
   - Mortality surveys

4. Periodic review of methods used by WHO to estimate the burden of TB disease and latent TB infection

5. Analysis and use of TB data at country level, including
   - Disaggregated analyses (e.g. age, sex, location)
   - Projections of disease burden and intervention impact
   - Guidance, tools, capacity building

*Including drug-resistant TB and HIV-associated TB specifically
2. Overview

Current status of progress, topics featured in this meeting
Data sources: TB incidence

Case notifications, standard adjustment (n=134, 15% burden)

Prevalence survey (n=24, 68% burden)

Case notifications, expert opinion (n=54, 17% burden)

Capture-recapture study (n=5, 0.5% burden)
Surveillance of TB cases and deaths

England and Wales

The Netherlands

United States
TB surveillance checklist

67 countries so far, usually as part of national TB epidemiological reviews

16 countries have already competed a repeat assessment allowing progress over time to be assessed, 9 more in next year
Inventory studies to measure underreporting, detected TB cases

Pakistan

Viet Nam

Indonesia
Age-sex disaggregation
notification data

% Share of global TB notifications

- Smear-positive
- Smear-negative and extrapulmonary
- All new and relapse

Drug-resistant TB

Continuous surveillance (n=90)  Surveys (n=70)
HIV-associated TB

% TB patients with documented HIV status

Africa

0–24
25–49
50–74
≥75 (n=116)
No data

2004 2016
TB deaths

- VR, WHO (n=111)
- VR, IHME (n=18)
- Indirect (n=88)

57% global TB deaths
Cost surveys: status of progress

- Completed: 9 (n=9)
- Underway: 5 (n=5)
- Planned: 11 (n=11)
Regional and national workshops
3 regional workshops, 45 countries since May 2016
With WHO/TDR, Global Fund, Challenge TB, Stop TB Partnership

High impact Africa, n=16
High impact Asia, n=10
National, n=3
West Africa (WARN-TB), n=16
WHO platform Example from dashboards
Guidance for country-level TB modelling

DRAFT DOCUMENT

LOGOS

This document was developed by the TB Modelling and Analysis Consortium (TB MAC) and the WHO Global TB Programme, with input from representatives from key external stakeholders (the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank, the Bill and Melinda Gates Foundation, the Stop TB Partnership), leading TB modelling groups, technical experts, and country-level TB policy & programme staff. Preparation of this guidance was led by NA Menzies, CF M’Quoid, GB Gomez, and RMGJ Houben.

Questions to the Task Force:
1. Does the Task Force endorse this document as a guide to how TB modelling and related technical assistance is undertaken to support country decision-making?
2. Does the Task Force have suggestions for complementary actions that could be undertaken to improve the quality and usefulness of mathematical modelling for country decision-making?
TB disease burden estimates

GLOBAL TUBERCULOSIS REPORT 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>TB Incidence</th>
<th>TB Deaths</th>
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<tbody>
<tr>
<td></td>
<td>Millions</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
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<tr>
<td>2008</td>
<td></td>
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<tr>
<td>2016</td>
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- **TB incidence**
  - Total: 10.4
  - HIV-positive (10% in 2016): 1.0

- **TB deaths**
  - HIV-negative: 1.7, 1.3
  - HIV-positive: 0.5, 0.4

- Incidence rate falling at about 2% per year
- Mortality rate falling at about 3% per year
- Case fatality ratio 16%
TB is one of top 10 causes of death worldwide ranks 9th, top infectious disease killer.
Regional trends in TB mortality rates

HIV-negative in blue, HIV-positive in red

Deaths per 100,000 population per year

- Africa
- Americas
- E. Mediterranean
- Europe
- South-East Asia
- Western Pacific

2000 2008 2016

2000 2008 2016

2000 2008 2016

2000 2008 2016

2000 2008 2016
56% of TB cases in 5 countries, 2016

7 countries account for 64%

Number of incident cases

- 100,000
- 500,000
- 1,000,000
- 2,500,000

circles shown for countries with at least 100,000 incident cases in 2016
MDR/RR-TB: 3 countries, 47% cases

Number of incident cases

- 1000
- 10,000
- 100,000
- 150,000

Circles shown for countries with at least 1000 incident cases in 2016

India

China

Russian Federation
Global cases in 2016 by age and sex

65% male, 35% female; 90% adults, 10% children

The black dashed line marks case notifications.
3. Broader context
WHO core functions

1. Providing leadership on matters critical to health and engaging in partnerships where joint action is needed

2. Shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge

3. Setting norms and standards and promoting and monitoring their implementation

4. Articulating ethical and evidence-based policy options

5. Providing technical support, catalysing change and building institutional capacity

6. Monitoring the health situation and assessing health trends

http://www.who.int/about/role/en/
Foundation of WHO’s work is SDG 3

Building health information systems

Strengthening data collection systems

Strengthening civil registration and other vital statistics

Population surveys

Strengthen capacity to collect, analyse, disseminate and use national and subnational data
Meeting objectives and outcomes
Meeting objectives

1. Strengthening national notification systems
   - overview of Task Force work, and discussion of priority next steps to support countries to meet quality and coverage standards

2. Strengthening national VR systems
   - overview of status of progress, and role of Global Fund and USAID

3. Priority studies - national prevalence, drug resistance, cost surveys
   - review progress, discuss priority next steps

4. Methods to estimate TB disease burden
   - present and discuss recent developments and future direction
   - initiate discussion of methods for subnational estimates

5. Analysis and use of TB data
   - review progress since April 2016, discuss priority next steps
     - review guidance on country-level TB modelling
     - framework for optimizing use of available evidence and tools
Expected outcomes

1. Strengthening national notification systems
   - Task Force well informed about current work and status of progress, with priority next steps identified

2. Strengthening national VR systems
   - Task Force well informed about status of global progress

3. Priority studies - national prevalence, drug resistance, cost surveys
   - Task Force well informed about progress, priority next steps identified

4. Methods to estimate TB disease burden
   - Task Force well informed about recent developments
   - Discussion about subnational estimates initiated, next steps suggested

5. Analysis and use of TB data
   - Guidance on country-level TB modelling endorsed
   - Next steps suggested for framework to support countries to optimize use of available evidence and tools
For more information

All background documents for this meeting

www.who.int/tb/areas-of-work/monitoring-evaluation/impact_measurement_taskforce/en/