WHO Global TB Report 2022

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Main findings and messages
Acknowledgements

202 countries and territories that reported data
>500 people who contributed to reporting and review of data

Core Report Team
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USAID, governments of Japan, Republic of Korea
### Report format

Optimized for web and app-based access (almost all users)

- Content available in relatively small, “bite-sized” chunks
- Easier to read, digest, navigate and use

<table>
<thead>
<tr>
<th>1. Core report document (50 pages)</th>
<th>3. Expanded, more detailed and digitized content on webpages (many interactive graphics)</th>
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<tbody>
<tr>
<td>2. Report app (country/region/global profiles)</td>
<td>1. COVID-19 &amp; TB</td>
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<td>2. TB disease burden</td>
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<td>3. TB diagnosis &amp; treatment</td>
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<td>4. TB prevention</td>
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<td>Featured topics</td>
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<td>Technical appendices</td>
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<td>Country, regional and global profiles</td>
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- Data
  - Download TB data
  - Download slide set

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Report purpose remains the same

The report provides a comprehensive and up-to-date assessment of the TB epidemic and of progress in the response at global, regional and country levels, in the context of global strategies and targets.

WHO End TB Strategy, 2016-2035
UN Sustainable Development Goals, 2016-2030
2018 UN high-level meeting on TB, targets for 2018-2022
Main source of data
annual rounds of global TB data collection from 215 countries and territories

<table>
<thead>
<tr>
<th>WHO Region</th>
<th>Countries and territories that reported data in 2022</th>
<th>WHO Member States that reported data in 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>47/47</td>
<td>47/47</td>
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<tr>
<td>Americas</td>
<td>40/45</td>
<td>34/35</td>
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<tr>
<td>Eastern Mediterranean</td>
<td>22/22</td>
<td>21/21</td>
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<tr>
<td>Europe</td>
<td>48/54</td>
<td>47/53</td>
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<tr>
<td>SE Asia</td>
<td>11/11</td>
<td>11/11</td>
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<tr>
<td>Western Pacific</td>
<td>34/36</td>
<td>27/27</td>
</tr>
<tr>
<td>All regions</td>
<td>202/215</td>
<td>187/194</td>
</tr>
</tbody>
</table>

Plus: monthly and quarterly notification data from >100 countries for the period since January 2020

https://worldhealthorg.shinyapps.io/tb_pronto/
Main findings and messages
Overarching findings and messages

1. The COVID-19 pandemic continues to have a damaging impact on access to TB diagnosis and treatment and the burden of TB disease

2. Progress made in the years up to 2019 has slowed, stalled or reversed, and global TB targets are off track

3. Intensified efforts backed by increased funding are urgently required to mitigate and reverse the negative impacts of the pandemic on TB

4. The need for action has become even more pressing in the context of war in Ukraine, ongoing conflicts in other parts of the world, a global energy crisis and associated impacts on food security, which are likely to further worsen some of the broader determinants of TB
Most obvious impact at global level

Big reductions (vs 2019) in reported number of people newly diagnosed with TB

- 7.1 million in 2019
- 6.4 million in 2021
- 5.8 million in 2020

18% drop, 2019-2020

Partial recovery, 2020-2021
2020: 10 countries = 90% of global reduction

India: 41%
Indonesia: 14%
Philippines: 12%
2021: 5 countries = 90% of global reduction

India, Indonesia, Philippines: 60% of total

Share of global reduction in reported number of people newly diagnosed with TB, 2021 vs 2019 (%)
More countries with large relative reductions

Reported number of people newly diagnosed with TB in 2020 and 2021 as % of 2019

Data shown for 30 high TB burden and 3 global TB watchlist countries
Consequences of reduced access to TB diagnosis and treatment

Reductions suggest that the number of people with undiagnosed and untreated TB has grown, resulting first in an increased number of TB deaths and more transmission of infection and then, with some lag-time, increased numbers of people developing TB.
Global number of TB deaths increased in 2020 and again in 2021, back to 2017 level. TB second only to COVID-19 as cause of death from single infectious agent.

- 1.6 million in 2021, up from 1.5 million in 2020 and 1.4 million in 2019
- 5.9% reduction vs 2015, one sixth of the way to the first milestone of the End TB Strategy
- 187,000, down from 201,000 in 2020

TB second only to COVID-19 as cause of death from single infectious agent.
TB more badly impacted than HIV

Deaths from TB in 2021 more than double those from HIV/AIDS, which continued to fall.
Global decline in TB incidence reversed in 2021
+3.6% 2020-2021, following years of decline of about 2% per year

10% reduction since 2015, only half-way to the first milestone of the End TB Strategy
8 countries, 68% of global cases in 2021
87% in 30 high TB burden countries

China
Bangladesh
Philippines
Indonesia
India
Pakistan
Democratic Republic of the Congo
Nigeria

Number of incident cases:
- 2,000,000
- 1,000,000
- 500,000
- 100,000
Distribution by age and sex

6.0 million men (56.5%), 3.4 million women (33.5%), 1.2 million children (11%)
Estimated number of people developing MDR/RR-TB has also increased

- 2015: 400
- 2016: 200
- 2017: 200
- 2018: 400
- 2019: 437 (390-483)
- 2020: 450 (399-501)
- 2021: 437 (390-483)

Thousands per year
Estimation of TB disease burden during COVID-19 pandemic is difficult

- Reliance on country and region-specific dynamic models for most low and middle-income countries

- New direct measurements of disease burden needed
  - National VR systems
  - National TB prevalence surveys
  - National inventory studies to measure underreporting
Widened gaps between numbers of people developing TB and numbers treated, treatment targets off track
Widened gap between number of people falling ill with TB (green) in 2020 and 2021 and the number diagnosed and reported (black line)
UN high-level meeting on TB, 2018
Global TB treatment target off-track

Target: 40 million
2018–2022

26.3 million
(66%) treated in 2018–2021
10 countries account for 75% global gap between TB incidence and reported cases

- India
- Indonesia
- Myanmar
- Viet Nam
- Philippines
- China
- Nigeria
- Democratic Republic of the Congo
- South Africa
- Pakistan

From global perspective, increased coverage of diagnosis and treatment of particular importance in these countries
Number of people treated for MDR/RR-TB
fall in 2020, partial recovery in 2021

- 2015: 17% reduction, 2019-2020
- 2020: Partial recovery, +7.5% 2020-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>All ages</th>
<th>Adults aged ≥ 15 years</th>
<th>Children &lt; 15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>120,000</td>
<td>100,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2016</td>
<td>120,000</td>
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<tr>
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<tr>
<td>2020</td>
<td>150,000</td>
<td>120,000</td>
<td>30,000</td>
</tr>
<tr>
<td>2021</td>
<td>162,000</td>
<td>150,000</td>
<td>12,000</td>
</tr>
</tbody>
</table>
UN high-level meeting on TB, 2018
Global MDR/RR-TB treatment target off-track

Target: 1.5 million 2018–2022

649 000 (43%) treated in 2018–2021
Funding for TB far short of what is needed, and costs faced by TB patients and their households far too high
Spending on essential TB services* down since 2019

UN high-level meeting target: US$ 13 billion annually by 2022

10% lower in 2021 compared with 2019

*TB diagnosis, treatment, prevention
Funding for TB research
less than half global target

UN high-level meeting target: US$ 2 billion per year, 2018-2022

(https://www.treatmentactiongroup.org/resources/tbrd-report/tbrd-report-2021/)
About half of people with TB and their households face catastrophic costs
pooled average = 48%; far from End TB Strategy target of zero by 2020

Overall (27 countries)

Drug-resistant TB only (23 countries)

15 high TB burden countries and 1 global TB watchlist country
Universal health coverage
status of the 2 SDG indicators for UHC
30 high TB burden and 3 global TB watchlist countries

Most countries far short of UHC
- Thailand closest
- General tendency for service coverage index to improve with income level
TB disease burden could worsen broader TB determinants may worsen in context of war, global energy crisis, food insecurity, pressures on income
TB determinants

Relationship between TB incidence, income and undernourishment

- **GDP per capita (US$ thousands)**
- **Prevalence of undernourishment (% of population)**

**TB incidence per 100,000 population in 2021**

- **Y-axis**: TB incidence per 100,000 population
- **X-axis**: GDP per capita (US$ thousands)

**Prevalence of undernourishment (% of population)**

- **Y-axis**: Prevalence of undernourishment (% of population)
- **X-axis**: GDP per capita (US$ thousands)
TB determinants

Global estimates of TB cases attributable to 5 risk factors in 2021

- Diabetes
- Smoking
- Alcohol use disorders
- HIV infection
- Undernourishment

Millions

World Health Organization
Positive findings and success stories
Treatment outcomes sustained or improving

- **People newly diagnosed with TB** (new and relapse cases): 85% in 2014, 86% in 2018, 86% in 2020
- **People diagnosed with rifampicin-resistant/MDR-TB**: 50% in 2012, 60% in 2019
African Region

limited impact on reported numbers of people newly diagnosed with TB

Millions

1.25
1.30
1.35
1.40
1.45
1.50

Limited or no negative impact on reported numbers of people newly diagnosed with TB increases in 6 high TB burden countries (HBCs)
Limited or no negative impact on reported numbers of people newly diagnosed with TB

no or limited departure from pre-2020 downward trend in five HBCs

Number in thousands

China

DPR Korea

Ethiopia

Namibia

South Africa
Recovery in reported number of people newly diagnosed with TB in 2021, to 2019 levels or beyond
five HBCs

- **Bangladesh**
- **Pakistan**
- **Sierra Leone**
- **Uganda**
- **Congo**
Good recovery in number of people initiated on TB preventive treatment in 2021

- Million Household contacts aged ≥5 years
- Million Household contacts aged <5 years
- Million People living with HIV

Most people provided with TPT are people living with HIV
UN high-level meeting on TB, 2018

Global TB preventive treatment target off-track overall, subtarget for people living with HIV surpassed.
Country success stories: TB deaths

Six high TB burden countries and one global TB watchlist country have reached the first End TB Strategy milestone (dashed line)*

*A 35% reduction from a baseline of 2015. The milestone was initially set for 2020.
Country success stories: TB incidence

Seven high TB burden countries and all three global TB watchlist countries have reached the first End TB Strategy milestone (dashed line)*

* A 20% reduction from a baseline of 2015. The milestone was initially set for 2020.
Regional success stories: TB incidence

Rate per 100,000 population per year (log scale)

Africa
- 22% reduction, 2015-2021
- First milestone: 20% reduction, 2015-2020

Americas
- 9.4% increase, 2015-2021

South-East Asia
- 11% reduction, 2015-2021

Europe
- 25% reduction, 2015-2021
- First milestone: 20% reduction, 2015-2020

Eastern Mediterranean
- 5.3% reduction, 2015-2021

Western Pacific
- 2.3% reduction, 2015-2021

Dashed line shows the first milestone of the End TB Strategy.
Conclusions
1. The COVID-19 pandemic continues to have a damaging impact on access to TB diagnosis and treatment and the burden of TB disease

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For more information