Health Inequality Data Repository

INDICATOR METADATA

Tuberculosis indicators

April 2023

Tuberculosis indicators

About

This dataset is from the WHO Health Inequality Data Repository.

This dataset contains data for tuberculosis (TB) indicators covering TB burden, detection, prevention, knowledge and attitudes, and social protection, disaggregated by age, economic status, education, place of residence, sex and TB drug resistance status. These data are presented in the State of Inequality: HIV, Tuberculosis and Malaria global report.

Data source

Data are derived from multiple sources:

- Data about TB incidence and mortality come from official modelled estimates produced annually by the WHO Global TB programme.
- Data on TB prevalence came from TB prevalence surveys.
- Country-reported case notification data are reported annually to WHO by national TB programmes.
- Data for the proportion of people with MDR/RR-TB come from routine surveillance data or national surveys.
- Data for BCG immunization coverage among children aged 1 year were sourced from the WHO Health Equity Monitor database, which contains BCG data gathered through nationally representative population-based surveys, including DHS, MICS and RHS.
- TB knowledge and attitudes indicators were sourced from the DHS programme STATcompiler tool (https://www.statcompiler.com/en).
- Information about families affected by TB facing catastrophic costs due to TB were sourced from TB patient cost surveys (obtained from country reports).

Methodology

See the indicator metadata below for links to information about indicator calculation methodologies.

Dataset metadata

Date of first publication	April 2023
Date of updated publication	n/a
Expected frequency of update	n/a
Date of data extraction	December 2021
Temporal coverage	1991–2020
Spatial coverage	Global
Spatial granularity	National
Number of countries	194
Number of indicators	10

Number of dimensions of inequality	6

Inequality dimensions

For knowledge and attitudes indicators, data disaggregation by **age** encompassed three subgroups (15-19 years, 20-34 years, and 35-49 years). For case detection rate, age-disaggregation encompassed two subgroups (0-14 years, 15+ years).

Economic status was determined using a wealth index. Country-specific indices were based on owning selected assets and having access to certain services, and constructed using principal component analysis. For wealth quintiles, within each country the index was divided into five equal subgroups that each account for 20% of the population. Note that certain indicators have denominator criteria that do not include all households and/or are more likely to include households from a specific quintile or decile; thus the quintile or decile share of the population for a given indicator may not equal 20%.

Education refers to the highest level of education attained and includes three subgroups (no education, primary education, and secondary or higher education). In the case of BCG immunization coverage among children aged 1 year, education subgroups are based on the level of education of the child's mother.

TB drug resistance is considered as a dimension of inequality for the social protection indicator (Families affected by TB facing catastrophic costs due to TB), as it may be a source of discrimination or lead to poor outcomes.

For **place of residence**, country-specific criteria were applied.

Sex (male and female). Data disaggregation among female and male subgroups separately (by age, economic status, education and place of residence) is available for certain knowledge, attitudes and practices and treatment indicators.

Disclaimer

The estimates presented may differ from, and should not be regarded as, the official national statistics of individual WHO Member States or official WHO estimates.

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Indicator metadata

Indicator name	Disaggregation	Definition / Further information	Notes
TB incidence (new infections per 100 000 population)	Sex	New and relapsed cases of TB per 100 000 population per year Numerator: Estimated number of new and relapsed cases of (HIV-negative) TB Denominator: UNDP estimated population	More information about WHO estimates: https://www.who.int/teams/global-tuberculosis-programme/data
TB mortality (deaths per 100 000 population)	Sex	Annual number of TB deaths per 100 000 population Numerator: Estimated number of (HIV-negative) TB deaths Denominator: UNDP estimated population	More information about WHO estimates: https://www.who.int/teams/global-tuberculosis-programme/data
TB prevalence (cases per 100 000 population)	Place of residence	National prevalence of bacteriologically positive pulmonary TB among general population aged 15 years and older Numerator: Number of cases of bacteriologically confirmed TB (smear-positive TB and smear-negative culture-positive TB) Denominator: Population aged 15 years and older	TB prevalence for United Republic of Tanzania was for smear-positive TB Philippines used 10-year-old eligibility threshold for its 2007 survey.
People with MDR/RR-TB (%)	Sex	Proportion of MDR/RR-TB among people with TB Numerator: Total number of previously untreated cases of MDR/RR-TB between 2011 and 2019 Denominator: Total number of previously untreated cases of MDR/RR-TB and non-MDR/RR-TB between 2011 and 2019	National average estimates are based on WHO estimates: https://www.who.int/teams/global-tuberculosis-programme/data
Prevalence to notification ratio (years)	Sex	Ratio of prevalence rate to annual notification rate (expressed in years) Numerator: Prevalence rate (at time of survey) Denominator: Annual case notification rate	The indicator indicates average time to notify a TB case; the higher the ratio, the longer the time taken for a prevalent case to be notified to the national TB programme. This accounts for some people exiting the pool of prevalent cases without being notified, for example because they self-cure or die or because they are detected and treated by providers not linked to official reporting systems https://www.who.int/teams/global-tuberculosis-programme/tb-reports

Tuberculosis indicators

Indicator name	Disaggregation	Definition / Further information	Notes
Case detection rate (%)	Age Sex	Proportion of estimated new and relapse TB cases detected in a given year Numerator: Number of new and relapse TB cases diagnosed and treated in national TB control programmes and notified to WHO Denominator: WHO estimate of number of incident TB cases for same year	The term "case detection" used here means TB is diagnosed in a patient and reported within the national surveillance system and then to WHO The term "rate" is used for historical reasons; the indicator is actually a ratio (expressed as percentage) https://www.who.int/teams/global-tuberculosis-programme/data
BCG immunization coverage among one-year-olds (%)	Economic status Education Place of residence Sex	The percentage of children aged 1 year who have received one dose of BCG vaccine in given year Numerator: Number of children aged 12–23 months receiving one dose of BCG vaccine Denominator: Total number of children aged 12–23 months surveyed	Estimates obtained from the 'Reproductive, maternal, newborn and child health (DHS/MICS/RHS re-analyzed by ICEH)' dataset of the WHO Health Inequality Data Repository: https://www.who.int/data/inequality-monitor/data
People who report TB is spread through coughing (%)	Age Economic status Education Place of residence Sex	Percentage of [people, females, males] who have heard of TB and correctly report TB is spread through air when coughing Numerator: Interviewed [people, females, males] aged 15–49 years who have heard of TB and correctly report TB is spread through air when coughing Denominator: All interviewed [people, females, males] aged 15–49 years	Estimates obtained from the DHS Program STATcompiler: https://dhsprogram.com
People who would want a family member's TB kept secret (%)	Age Economic status Education Place of residence Sex	Percentage of [people, females, males] who have heard of TB and who would want a family member's TB kept secret Numerator: Interviewed [people, females, males] aged 15–49 years who have heard of TB and who would want a family member's TB kept secret Denominator: All interviewed [people, females, males] aged 15–49 years	Estimates obtained from the DHS Program STATcompiler: https://dhsprogram.com
Families affected by TB facing catastrophic costs due to TB (%)	Economic status TB drug resistance	Percentage of families affected by TB with total costs due to TB equivalent to over 20% of annual household income	The focus of this indicator is on direct and indirect financial and economic costs which pose barriers

Indicator name	Disaggregation	Definition / Further information	Notes
		Numerator: Number of families affected by TB incurring total costs due to TB exceeding 20% of annual household income Denominator: Total number of families affected by TB, identified among people diagnosed with TB who are users of health services that are part of National TB Programme networks	that can greatly affect the ability of TB patients to access diagnosis and treatment, and to complete treatment successfully