Health Inequality Monitor

Data Repository

COMPENDIUM OF INDICATOR DEFINITIONS

Tuberculosis indicators

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World Health Organization

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Tuberculosis indicators

About

This dataset contains disaggregated data for Tuberculosis indicators presented in the *State of Inequality: HIV, Tuberculosis and Malaria* global report. It contains 10 indicators to assess the state of inequality covering topics including burden, detection, prevention, knowledge and attitudes, and social protection, disaggregated by up to six dimensions of inequality (sex, economic status, education, place of residence, age, and TB drug resistance status).

Data sources

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).

Indicators

TB incidence (new infections per 100 000 population)

Topic	TB Burden
Indicator name	TB incidence (new infections per 100 000 population)
Data type	Rate
Data source	WHO estimate
Definition	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
Disaggregation	Sex
Further information	Estimates obtained through WHO https://www.who.int/teams/global-tuberculosis-programme/data

TB mortality (deaths per 100 000 population)

Topic	TB Burden
Indicator name	TB mortality (deaths per 100 000 population)
Data type	Rate
Data source	WHO estimate
Definition	Annual number of TB deaths per 100 000 population Numerator: Estimated number of (HIV-negative) TB deaths Denominator: UNDP estimated population
Disaggregation	Sex
Further information	Estimates obtained through WHO https://www.who.int/teams/global-tuberculosis-programme/data

TB prevalence (cases per 100 000 population)

Topic	TB Burden
Indicator name	TB prevalence (cases per 100 000 population)
Data type	Rate
Data source	TB prevalence surveys
Definition	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
Disaggregation	Place of residence
Further information	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 (%)

Topic	TB Burden
Indicator name	People with MDR/RR-TB (%)
Data type	Percentage
Data source	Country-reported to WHO
Definition	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
Disaggregation	Sex

Further information	National average estimates based on WHO estimates https://www.who.int/teams/global-tuberculosis-programme/data

Prevalence to notification ratio (years)

Topic	TB Detection
Indicator name	Prevalence to notification ratio (years)
Data type	Number of years
Data source	TB prevalence surveys and country-reported case notifications
Definition	Ratio of prevalence rate to annual notification rate (expressed in years) Numerator: Prevalence rate (at time of survey) Denominator: Annual case notification rate
Disaggregation	Sex
Further information	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

Case detection rate (%)

Health topic	TB Detection
Indicator name	Case detection rate (%)
Data type	Percentage
Data source	WHO-estimated TB incidence and country-reported case notifications
Definition	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
Disaggregation	Age (2 groups) (0-15+) Sex
Further information	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 (%)

Topic	TB Prevention
Indicator name	BCG immunization coverage among one-year-olds (%)
Data type	Percentage
Data source	DHS, MICS and RHS
Definition	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
Disaggregation	Economic status (wealth quintile) Education (3 groups) Place of residence Sex
Further information	Estimates obtained from WHO Health Equity Monitor database https://www.who.int/data/gho/health-equity

People who report TB is spread through coughing [overall, female, male] (%)

Health topic	TB Knowledge and attitudes
Indicator name	People who report TB is spread through coughing [overall, female, male] (%)
Data type	Percentage
Data source	DHS
Definition	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
Disaggregation	Age (3 groups) (15-49) Economic status (wealth quintile) Education (3 groups) Place of residence Sex
Further information	Estimates obtained through analysis of DHS data https://dhsprogram.com/

People who would want a family member's TB kept secret [overall, female, male] (%)

Health topic	TB Knowledge and attitudes
Indicator name	People who would want a family member's TB kept secret [overall, female, male] (%)
Data type	Percentage
Data source	DHS
Definition	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
Disaggregation	Age (3 groups) (15-49) Economic status (wealth quintile) Education (3 groups) Place of residence Sex
Further information	Estimates obtained through analysis of DHS data https://dhsprogram.com/

Families affected by TB facing catastrophic costs due to TB (%)

Health topic	TB Social protection
Indicator name	Families affected by TB facing catastrophic costs due to TB (%)
Data type	Percentage
Data source	TB patient cost surveys
Definition	Percentage of families affected by TB with total costs due to TB equivalent to over 20% of annual household income 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
Disaggregation	Economic status (wealth quintile) TB drug resistance
Further information	The focus of this indicator is on direct and indirect financial and economic costs which pose barriers that can greatly affect the ability of TB patients to access diagnosis and treatment, and to complete treatment successfully

Inequality dimensions

The tuberculosis indicators are disaggregated by up to six dimensions of inequality: age, economic status, education, place of residence and TB drug resistance status.

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.

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

Dimension	**Subgroups**
Age (2 groups) (0-15+)	2 subgroups: 0–14 years and 15+ years
Age (3 groups) (15-49)	3 subgroups: 15-19 years, 20-34 years, 35-49 years
Economic status (wealth quintile)	5 subgroups: quintile 1 (poorest), quintile 2, quintile 3, quintile 4, quintile 5 (richest)
Education (3 groups)	3 subgroups: no education, primary education, secondary or higher education
Place of residence	2 subgroups: rural, urban
Sex	2 subgroups: female, male
TB drug resistance	2 subgroups: drug-resistant TB, drug-susceptible TB