Health Inequality Data Repository

INDICATOR METADATA

WHO 13th General Programme of Work (GPW13)

July 2023

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About

This dataset is from the [WHO Health Inequality Data Repository](#).

This dataset contains data for indicators used within the WHO Thirteenth General Programme of Work (GPW 13) impact measurement disaggregated by age, economic status, education, place of residence, sex and subnational region.

GPW 13 defines WHO's strategy for the period 2019-2023 and focuses on measurable impacts on people's health at the country level. The impact measurement of GPW 13 is based on 46 health-related outcome indicators (the majority of which are Sustainable Development Goals), the Triple Billion targets (one billion more people benefiting from universal health coverage; one billion more people better protected from health emergencies; and one billion more people enjoying better health and well-being), and healthy life expectancy. More information about GPW 13 can be found here: https://www.who.int/about/what-we-do/thirteenth-general-programme-of-work-2019---2023

Data source

Data are derived from multiple data sources, including:
- Re-analysis of Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and Reproductive Health Surveys (RHS) by the WHO Collaborating Center for Health Equity Monitoring (International Center for Equity in Health (ICEH), Federal University of Pelotas).
- WHO Global Health Estimates (GHE).
- WHO estimates published in the WHO Global Health Observatory (www.who.int/data/gho).
- Water Supply, Sanitation and Hygiene (WASH) estimates from the WHO/UNICEF Joint Monitoring Programme (JMP).
- UNICEF-WHO-World Bank Joint Malnutrition Estimates from the WHO Global Database on Child Growth and Malnutrition.
- UNAIDS-UNICEF-WHO HIV incidence estimates.

Methodology

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

Dataset metadata

Date of first publication	April 2023
Date of updated publication	n/a
Expected frequency of update	Annual
Date of data extraction	July 2023*
Temporal coverage	1950–2021
Spatial coverage	Global
Spatial granularity	National
Number of countries, territories or areas	196

Number of indicators	37
Number of dimensions of inequality	6

*Date of data extraction may vary by indicator.

Inequality dimensions

The **age** dimension has alternative groupings, depending on the indicator and source of data. For child malnutrition indicators, the age dimension refers to the child's age and encompasses two subgroups (0-1 years, 2-5 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. For wealth deciles, within each country the index was divided into ten equal subgroups that each account for 10% 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% or 10%, respectively.

Education disaggregation is available for reproductive, maternal, newborn and child health (RMNCH) indicators. It refers to the highest level of education attained by the woman (or the mother, in the case of newborn and child health interventions, child malnutrition and child mortality indicators).

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

Sex (male and female).

Disclaimer

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

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Indicator metadata

Indicator name	Disaggregation	Definition / Further information	Notes
Alcohol, total per capita (15+) consumption (SDG Indicator 3.5.2) (in litres of pure alcohol)	Sex	Recorded alcohol per capita consumption (APC) is defined as the recorded amount of alcohol consumed per capita (15+ years) over a calendar year in a country, in litres of pure alcohol. The indicator only takes into account the consumption which is recorded from production, import, export, and sales data often via taxation. Numerator: The amount of recorded alcohol consumed per capita (15+ years) during a calendar year, in litres of pure alcohol. Denominator: Midyear resident population (15+ years) for the same calendar year, UN World Population Prospects, medium variant.	Sourced from WHO GHO. Further information available here.
Ambient air pollution attributable death rate (per 100 000 population)	Sex	Burden of disease attributed to air pollution is calculated by first combining information on the increased (or relative) risk of a disease resulting from exposure, with information on how widespread the exposure is in the population (in this case, the annual mean concentration of particulate matter to which the population is exposed). This allows calculation of the 'population attributable fraction' (PAF), which is the fraction of disease seen in a given population that can be attributed to the exposure, in this case the annual mean concentration of particulate matter. Applying this fraction to the total burden of disease (e.g. cardiopulmonary disease expressed as deaths or DALYs), gives the total number of deaths or DALYs that results from ambient air pollution.	Sourced from WHO GHO. The estimates are derived from the WHO Global Health Estimates (GHE). These estimates represent the best estimates of WHO, computed using standard categories, definitions and methods to ensure cross-country comparability, and may not be the same as official national estimates. Further information available here.
Antenatal care coverage - at least four visits (%)	Age (mother's age at birth) Economic status Education Place of residence Subnational region	Percentage of women aged 15–49 with a live birth in a given time period, attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy. Numerator: Number of women aged 15–49 with a live birth in a given time period, attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy – only the last live-born child is considered. Denominator: Total number of women aged 15–49 who had a live birth occurring in the same period.	Sourced from ICEH. DHS and RHS data are based on the three years or five years prior to survey and MICS data are based on the two years prior to survey. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Births attended by skilled health personnel (%)	Age (mother's age at birth)	Percentage of live births attended during delivery by skilled health personnel. Skilled health personnel include doctors, nurses, midwives	Sourced from ICEH. DHS and RHS data are based on the three years or

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	Economic status Education Place of residence Subnational region	and other medically trained personnel as defined according to each country. This is in line with the definition used by the Countdown to 2030 Collaboration, DHS, MICS and RHS. Numerator: Number of live births to women aged 15-49 years attended during delivery by skilled health personnel in the period prior to the survey. Denominator: Total number of live births to women aged 15-49 years occurring in the period prior to the survey. Note: DHS and RHS data are based on the three years or five years prior to survey and MICS data are based on the two years prior to survey.	five years prior to survey and MICS data are based on the two years prior to survey. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Children aged < 5 years with pneumonia symptoms taken to a health facility (%)	Age (mother's current age) Economic status Education Place of residence Sex Subnational region	Percentage of children aged 0–59 months with pneumonia symptoms in the two weeks prior to the survey who were taken to an appropriate health provider. Numerator: Number of children aged 0–59 months with pneumonia symptoms in the two weeks prior to the survey who were taken to an appropriate health provider. Denominator: Total number of children aged 0–59 months with pneumonia symptoms in the two weeks prior to the survey.	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Concentrations of fine particulate matter (PM2.5)	Place of residence	The mean annual concentration of fine suspended particles of less than 2.5 microns in diameters is a common measure of air pollution. The mean is a population-weighted average for urban population in a country.	Sourced from WHO GHO. Further information available here.
Crude suicide rates (per 100 000 population)	Age Sex Age/sex	Number of suicide deaths in a year, divided by the population and multiplied by 100 000. Suicide deaths will be based on the following ICD-10 codes: X60-X84, Y87.0. Numerator: Number of deaths from suicide. Denominator: Total population.	Sourced from WHO GHO. Further methodological details are available here: WHO methods and data sources for country-level causes of death 2000-2016. Geneva: World Health Organization; 2018 (http://www.who.int/healthinfo/global_burden_disease/GlobalCOD_method_2000_2016.pdf)
Demand for family planning satisfied – use of modern methods (%)	Age (woman's current age) Economic status Education	Percentage of women aged 15–49 years, married or in union, who are currently using any modern method of contraception, among those in need of contraception. Women in need of contraception include women who are fecund but report wanting to space their next	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from

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	Place of residence Subnational region	birth or stop childbearing altogether as well as women with a mistimed or unwanted pregnancy. Numerator: Number of women aged 15–49 that are fecund and are married or in union and need contraception, who are currently using any modern method of contraception. Denominator: Total number of women aged 15–49 that are fecund and are married / have a partner and need contraception.	other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Demand for family planning satisfied – use of modern and traditional methods (%)	Age (woman's current age) Economic status Education Place of residence Subnational region	Percentage of women aged 15–49 years, married or in union, who are currently using any method of contraception, among those in need of contraception. Women in need of contraception include women who are fecund but report wanting to space their next birth or stop childbearing altogether as well as women with a mistimed or unwanted pregnancy. Numerator: Number of women aged 15–49 that are fecund and are married or in union and need contraception, who use any kind of contraceptive (modern or traditional). Denominator: Total number of women aged 15–49 that are fecund and are married / have a partner and need contraception.	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
DTP3 immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education Place of residence Sex Subnational region	The percentage of one-year-olds who have received three doses of the combined diphtheria, tetanus toxoid and pertussis (DTP3) vaccine in a given year. Numerator: Number of children aged 12–23 months receiving three doses of DTP vaccine. Denominator: Total number of children aged 12–23 months surveyed. Note: In certain countries the time period of 12–23 months was adjusted to align with alternative national immunization periods (18–29 months or 15–26 months).	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Estimate of current tobacco use prevalence (%) (age-standardized)	Sex	The percentage of the population aged 15 years and over who currently use any tobacco product (smoked and/or smokeless tobacco). "Current use" means use within the previous 30 days at the time of the survey, whether daily or non-daily use. Numerator: Number of respondence aged 15+ years currently using any tobacco product. Denominator: Number of survey respondents aged 15+ years.	Sourced from WHO GHO. Further information available here.

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Healthy life expectancy (HALE) at birth (years)	Sex	Average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury.	Sourced from WHO GHO. Further information available here.
HIV incidence (new infections per 1000 population)	Sex Subnational region	Number of new HIV infections per 1000 uninfected population. The incidence rate is the number of new cases per population at risk in a given time period. Numerator: Number of new HIV infections. Denominator: Uninfected population (which is the total population minus people living with HIV).	Sourced from WHO GHO. Further information available here.
Measles immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education Place of residence Sex Subnational region	The percentage of children aged 12–23 months who have received at least one dose of measles-containing vaccine in a given year. Numerator: Number of children aged 12–23 months receiving at least one dose of measles-containing vaccine. Denominator: Total number of children aged 12–23 months surveyed.	Sourced from ICEH. In certain countries the time period of 12–23 months was adjusted to align with alternative national immunization periods (18–29 months or 15–26 months). The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Mortality rate attributed to exposure to unsafe WASH services (SDG 3.9.2) (per 100 000 population)	Sex	Deaths attributable to unsafe water, sanitation and hygiene focusing on inadequate WASH services, expressed per 100,000 population. Death rates are calculated by dividing the number of deaths by the total population of the subgroup. In this estimate, only the impact of diarrhoeal diseases, intestinal nematode infections, and protein-energy malnutrition are taken into account. The included diseases are the WASH attributable portions of diarrhoea (ICD-10 code A00, A01, A03, A04, A06-A09), intestinal nematode infections (ICD-10 code B76-B77, B79) and protein-energy malnutrition (ICD-10 code E40-E46).	Sourced from WHO GHO. Further information available here. The methods with agreed international standard have been developed, reviewed and published in various documents: http://www.who.int/water_sanitation_health/diseases-risks/gbd_poor_water/en/ and http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255749/
Mortality rate attributed to unintentional poisoning (per 100 000 population)	Sex	Mortality rate in the country attributed to unintentional poisoning per year is estimated, based on the ICD-10 codes X40, X43-X44, X46-X49. The estimates for number of deaths attributed to unintentional poisoning are derived from the WHO Global Health Estimates (GHE),	Sourced from WHO GHO. Further information available here. The estimates are derived from the WHO Global Health Estimates (GHE). These estimates represent the best estimates of WHO, computed using

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		and the corresponding population estimates are derived from the UN World Population Prospects. Numerator: Total number of deaths attributed to unintentional poisoning. Denominator: Total population.	standard categories, definitions and methods to ensure cross-country comparability, and may not be the same as official national estimates.
Neonatal mortality rate (deaths per 1000 live births)	Age (mother's age at birth) Economic status Education Place of residence Sex Subnational region	Probability (expressed as a rate per 1000 live births) of a child born in a specific year or period dying in the first 30 days of life, if subject to age-specific mortality rates of that period. Numerator: Deaths at ages 0–30 days. Denominator: Number of surviving children at beginning of specified age range during the 10 years prior to survey.	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Obesity prevalence among adults (%)	Sex	Percentage of defined population with a body mass index (BMI) of 30 kg/m2 or higher. BMI is calculated by dividing the subject's weight in kilograms by their own height in meters squared. Numerator: Number of persons who are obese. Denominator: Total number of persons in the survey that were measured.	Sourced from WHO GHO. Further information available here.
Obesity prevalence among children and adolescents (5-19) (%)	Sex	Percentage of defined population with a body mass index (BMI) greater than 2 standard deviation above the median, according to the WHO Growth Reference for School-aged Children and Adolescents. BMI is calculated by dividing the subject's weight in kilograms by their own height in meters squared. Numerator: Number of persons who are obese. Denominator: Total number of persons in the survey that were measured.	Sourced from WHO GHO. Further information available here.
Overweight prevalence in children aged < 5 years (%)	Child's age Economic status Education Place of residence Sex Subnational region	The percentage of overweight (defined as more than two standard deviations above the median weight-for-height of the WHO Child Growth Standards) among children under five years of age. Numerator: Number of children aged under five years that meet the criteria for overweight. Denominator: Total number of children aged under five years surveyed.	UNICEF-WHO-World Bank Joint Malnutrition Estimates, published in the WHO Global Database on Child Growth and Malnutrition.

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People living with HIV on antiretroviral therapy (%)	Age Sex	Percentage of people age 15 and older on antiretroviral therapy among all people age 15 and older living with HIV at the end of the reporting period. Numerator: Number of people on antiretroviral therapy at the end of the reporting period. Denominator: Estimated number of people living with HIV (to determine treatment coverage)	Estimates of antiretroviral therapy numbers are abstracted from country reported programme data through the UNAIDS-supported Spectrum software, the Global AIDS Monitoring reporting tool and the Dublin Declaration reporting process.
Polio immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education Place of residence Sex Subnational region	The percentage of one-year-olds who have received three doses of polio vaccine in a given year. Numerator: Number of children aged 12–23 months receiving three doses of polio vaccine. Denominator: Total number of children aged 12–23 months surveyed.	Sourced from ICEH. In certain countries the time period of 12–23 months was adjusted to align with alternative national immunization periods (18–29 months or 15–26 months). The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Population using at least basic sanitation services (%)	Place of residence	The percentage of population using at least basic sanitation services, that is, improved sanitation facilities that are not shared with other households. This indicator encompasses both people using basic sanitation services as well as those using safely managed sanitation services. Note: Improved sanitation facilities include flush/pour flush toilets connected to piped sewer systems, septic tanks or pit latrines; pit latrines with slabs (including ventilated pit latrines), and composting toilets.	The JMP uses a standard classification and estimation method to compare progress across countries, regions and the world. For a detailed explanation of the methods, please refer to https://washdata.org/monitoring/methods and the methodological note for the 2017 update and SDG baseline report available at https://washdata.org/report/jmp-methodology-2017-update.
Population using safely managed drinking water services (%)	Place of residence	The proportion of the population using drinking water from an improved water source which is located on premises, available when needed and free from faecal and priority chemical contamination. Note: Improved drinking water sources are those that have the potential to deliver safe water by nature of their design and	The JMP uses a standard classification and estimation method to compare progress across countries, regions and the world. For a detailed explanation of the

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		construction, and include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.	methods, please refer to https://washdata.org/monitoring/methods and the methodological note for the 2017 update and SDG baseline report available at https://washdata.org/report/jmp-methodology-2017-update.
Population using safely managed sanitation services (%)	Place of residence	The proportion of the population using improved sanitation facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site. Note: Improved sanitation facilities are those designed to hygienically separate excreta from human contact, and include: flush/pour flush to piped sewer system, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.	The JMP uses a standard classification and estimation method to compare progress across countries, regions and the world. For a detailed explanation of the methods, please refer to https://washdata.org/monitoring/methods and the methodological note for the 2017 update and SDG baseline report available at https://washdata.org/report/jmp-methodology-2017-update.
Population sleeping under an insecticide-treated net (%)	Economic status Place of residence Subnational region	Percentage of the insecticide-treated nets (ITNs) that were used by anyone the night before the survey. Numerator: Number of ITNs in surveyed households that were used by anyone the night prior to the survey. Denominator: Number of ITNs in surveyed households.	Sourced from the DHS Program API.
Population with household spending on health greater than 10% of total household budget (%)	Place of residence	Proportion of the population with household expenditure on health exceeding 10% of total household expenditure or income.	Sourced from WHO GHO. Further information available here.
Population with household spending on health greater than 25% of total household budget (%)	Place of residence	Proportion of the population with household expenditure on health exceeding 25% of total household expenditure or income.	Sourced from WHO GHO. Further information available here.
Population with primary reliance on clean fuels	Place of residence	Proportion of population with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total	Sourced from WHO GHO. Further information available here.

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and technologies for cooking (%)		population reporting that any cooking, heating or lighting, expressed as percentage. "Clean" is defined by the emission rate targets and specific fuel recommendations (i.e. against unprocessed coal and kerosene) included in the normative guidance WHO guidelines for indoor air quality: household fuel combustion.	
Probability of dying between age 30 and exact age 70 from any of cardiovascular disease, cancer, diabetes or chronic respiratory disease (%)	Sex	Probability of dying between the exact ages 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases. Deaths from these four causes will be based on the following ICD-10 codes: I00-I99, C00-C97, E10-E14, and J30-J98. A life table method allows calculation of the risk of death between exact ages 30 and 70 from any of these causes, in the absence of other causes of death. Numerator: Total deaths from four major NCD causes between age 30 and age 70. Denominator: Total population between age 30 and age 70.	Sourced from WHO GHO. The estimates are derived from the WHO Global Health Estimates (GHE). These estimates represent the best estimates of WHO, computed using standard categories, definitions and methods to ensure cross-country comparability, and may not be the same as official national estimates. Further information available here.
Raised blood pressure (SBP>=140 OR DBP>=90) (18+ years) (age-standardized) (%)	Sex	Numerator: Number of respondents aged 30-79 years with raised blood pressure (systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg). Denominator: Number of survey respondents aged 18+ years. Ideally three blood pressure measurements should be taken and the average systolic and diastolic readings of the second and third measures should be used in this calculation.	Sourced from WHO GHO. Further information available here.
Raised fasting blood glucose (>=7.0 mmol/L) (18+ years) (age-standardized) (%)	Sex	Percent of defined population with fasting glucose ⩾126 mg/dl (7.0 mmol/l) or history of diagnosis with diabetes or use of insulin or oral hypoglycaemic drugs.	Sourced from WHO GHO. Further information available here. Methodological details can be found here. Input data and methods are described here.
Stunting prevalence in children aged < 5 years (%)	Child's age Economic status Education Place of residence Sex Subnational region	The percentage of stunting (defined as more than two standard deviations below the median height-for-age of the WHO Child Growth Standards) among children under five years of age. Numerator: Number of children aged under five years that meet the criteria for stunting. Denominator: Total number of children aged under five years surveyed.	UNICEF-WHO-World Bank Joint Malnutrition Estimates published in the WHO Global Database on Child Growth and Malnutrition.

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TB incidence (new infections per 100 000 population)	Age Sex Age/sex	The estimated number of new and relapse tuberculosis (TB) cases arising in a given year, expressed as the rate per 100 000 population. All forms of TB are included, including cases in people living with HIV.	Sourced from the WHO Global Tuberculosis Programme: https://www.who.int/teams/global-tuberculosis-programme/data.
Under-five mortality rate (deaths per 1000 live births)	Age (mother's age at birth) Economic status Education Place of residence Subnational region	Probability (expressed as a rate per 1000 live births) of a child born in a specific year or period dying before reaching the age of five years, if subject to age-specific mortality rates of that period. Numerator: Deaths at age 0–5 years. Denominator: Number of surviving children at beginning of specified age range during the 10 years prior to survey.	Sourced from ICEH. The method of calculation of disaggregated estimates and setting averages for this indicator may differ slightly from other published national estimates, due to small discrepancies in the definition/calculation of numerator and denominator values.
Under-five mortality rate (SDG 3.2.1) (deaths per 1000 live births)	Sex	The probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period. Under-five mortality rate as defined here is strictly speaking not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of death derived from a life table and expressed as rate per 1000 live births.	Sourced from the WHO GHO. Estimates produced by the Inter-agency Group for Child Mortality of Estimation which includes representatives from UNICEF, WHO, the World Bank and the United Nations Population Division. Further information available here.
Wasting prevalence in children aged < 5 years (%)	Child's age Economic status Education Place of residence Sex Subnational region	The percentage of wasting (defined as more than two standard deviations below the median weight-for-height of the WHO Child Growth Standards) among children under five years of age. Numerator: Number of children aged under five years that meet the criteria for wasting. Denominator: Total number of children aged under five years surveyed.	UNICEF-WHO-World Bank Joint Malnutrition Estimates published in the WHO Global Database on Child Growth and Malnutrition.