



# **Health Inequality Data Repository**

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## INDICATOR METADATA

Childhood immunization (DHS/MICS/RHS re-analyzed by ICEH)

**April 2023**

## Childhood immunization (DHS/MICS/RHS re-analyzed by ICEH)

### About

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

This dataset contains data for childhood immunization indicators from household health surveys disaggregated by age, economic status, education, place of residence, sex and subnational region.

### Data source

Data are based on the reanalysis of microlevel data from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and Reproductive Health Surveys (RHS). The re-analysis was done by the WHO Collaborating Center for Health Equity Monitoring (International Center for Equity in Health, Federal University of Pelotas, Brazil).

### Methodology

In general, standard indicator definitions were adopted, as published in DHS, MICS and RHS documentation. In a few cases in estimates produced by ICEH, there may be minor differences between the data reported here and in previous DHS, MICS or RHS country reports due to small discrepancies in the definition and calculation of some indicators. See the indicator metadata for further information.

### Dataset metadata

<b>Date of first publication</b>	April 2023
<b>Date of updated publication</b>	n/a
<b>Expected frequency of update</b>	Annual
<b>Date of data extraction</b>	June 2022
<b>Temporal coverage</b>	1991-2020
<b>Spatial coverage</b>	Global
<b>Spatial granularity</b>	National
<b>Number of countries</b>	110
<b>Number of indicators</b>	18
<b>Number of dimensions of inequality</b>	6

### Inequality dimensions

The **age** dimension refers to the mother's current age.

**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** refers to the highest level of education attained by the mother.

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

**Sex** refers to the reported sex (male or female) of the child.

## 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.

Please note that, in some cases, indicators may not be equivalent to similar indicators listed in the WHO Global Health Observatory, due to small discrepancies in the definition and calculation of numerator and denominator values. Detailed information about the indicator criteria applied in all WHO-defined categories is available in the WHO Global Health Observatory (<https://www.who.int/data/gho/data/indicators>).

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Indicator metadata

Indicator name	Disaggregation	Definition / Further information	Notes
BCG immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of one-year-olds who have received the Bacille Calmette-Guérin (BCG) vaccine in a given year.  <u>Numerator</u> : Number of children aged 12–23 months who received the BCG vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
BCG immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received the Bacille Calmette-Guérin (BCG) vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months who received the BCG vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
DTP3 immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's 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.  <u>Numerator</u> : Number of children aged 12–23 months receiving three doses of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
DTP3 immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received three doses of the combined diphtheria, tetanus toxoid and pertussis (DTP3) vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months receiving three doses of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	

Childhood immunization (DHS/MICS/RHS re-analyzed by ICEH)

Indicator name	Disaggregation	Definition / Further information	Notes
Full immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of one-year-olds who have received one dose of Bacille Calmette-Guérin (BCG) vaccine, three doses of polio vaccine, three doses of the combined diphtheria, tetanus toxoid and pertussis (DTP3) vaccine, and one dose of measles vaccine.  <u>Numerator</u> : Number of children aged 12–23 months receiving one dose of BCG vaccine, three doses of polio vaccine, three doses of DTP3 vaccine, and one dose of measles vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Full immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received one dose of Bacille Calmette-Guérin (BCG) vaccine, three doses of polio vaccine, three doses of the combined diphtheria, tetanus toxoid and pertussis (DTP3) vaccine, and one dose of measles vaccine.  <u>Numerator</u> : Number of children aged 24–35 months receiving one dose of BCG vaccine, three doses of polio vaccine, three doses of DTP3 vaccine, and one dose of measles vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
Haemophilus influenzae type B (Hib3) immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of one-year-olds who have received three doses of the Hib vaccine.  <u>Numerator</u> : Number of children aged 12–23 months receiving three doses of the Hib vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Haemophilus influenzae type B (Hib3) immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received three doses of the Hib vaccine.  <u>Numerator</u> : Number of children aged 24–35 months receiving three doses of the Hib vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	

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Indicator name	Disaggregation	Definition / Further information	Notes
Measles immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's 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.  <u>Numerator</u> : Number of children aged 12–23 months receiving at least one dose of measles-containing vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Measles immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of children aged 24–35 months who have received at least one dose of measles-containing vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months receiving at least one dose of measles-containing vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
One-year-old children who did not receive any doses of the DTP vaccine (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	Percentage of children aged 12–23 months who have not received any doses of the DTP vaccine in a given year.  <u>Numerator</u> : Number of children aged 12–23 months who did not receive any dose of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Two-year-old children who did not receive any doses of the DTP vaccine (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	Percentage of children aged 24–35 months who have not received any doses of the DTP vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months who did not receive any dose of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
One-year-old children who did not receive any doses of the BCG, polio, DTP and measles vaccines (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	Percentage of children aged 12–23 months who have not received any doses of the DTP vaccine in a given year.  <u>Numerator</u> : Number of children aged 12–23 months who did not receive any dose of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).

Childhood immunization (DHS/MICS/RHS re-analyzed by ICEH)

Indicator name	Disaggregation	Definition / Further information	Notes
Two-year-old children who did not receive any doses of the BCG, polio, DTP and measles vaccines (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	Percentage of children aged 24–35 months who have not received any doses of the DTP vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months who did not receive any dose of the DTP vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
Polio immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's 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.  <u>Numerator</u> : Number of children aged 12–23 months receiving three doses of polio vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Polio immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received three doses of polio vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months receiving three doses of polio vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	
Rotavirus immunization coverage among one-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of one-year-olds who have received two or three doses of the rotavirus vaccine in a given year.  <u>Numerator</u> : Number of children aged 12–23 months who have received two or three doses (depending on vaccine brand) of the rotavirus vaccine.  <u>Denominator</u> : Total number of children aged 12–23 months surveyed.	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).
Rotavirus immunization coverage among two-year-olds (%)	Age (mother's current age) Economic status Education (mother's education) Place of residence Sex Subnational region	The percentage of two-year-olds who have received two or three doses of the rotavirus vaccine in a given year.  <u>Numerator</u> : Number of children aged 24–35 months who have received two or three doses of the rotavirus vaccine.  <u>Denominator</u> : Total number of children aged 24–35 months surveyed.	