## Life expectancy

**Rationale:**

Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly.

**Definition:**

The average number of years that a newborn could expect to live, if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area.

**Disaggregation:**

Sex

**Method of measurement**

Life expectancy at birth is derived from life tables and is based on sex- and age-specific death rates. Life expectancy at birth values from the United Nations correspond to mid-year estimates, consistent with the corresponding United Nations fertility medium-variant quinquennial population projections.

**M&E Framework:**

Impact

**Method of estimation:**

Final estimates of age-sex-specific mortality rates for years 1990-2019 were used to compute abridged life tables for 183 WHO Member States with population of 90,000 or greater in 2019. Life expectancies at birth are reported in World Health Statistics 2019 and full life tables are available in the WHO Global Health Observatory WHO applies standard methods to the analysis of Member State data to ensure comparability of estimates across countries. This will inevitably result in differences for some Member States with official estimates for quantities such as life expectancy, where a variety of different projection methods and other methods are used. These WHO estimates of mortality and life expectancies should not be regarded as the nationally endorsed statistics of Member States, which may have been derived using alternative methodologies and assumptions.

**Method of estimation of global and regional aggregates:**

The numbers of deaths estimated from life table and population by age groups  are aggregated by relevant region in order to compute regional life tables

**Other possible data sources:**

Household surveys

Population census

**Preferred data sources:**

Civil registration with complete coverage

**Unit of Measure:**

Years

**Expected frequency of data dissemination:**

Biennial (Two years)

**Expected frequency of data collection:**

Biennial (Two years)

**Comments:**

The lack of complete and reliable mortality data, especially for low-income countries and particularly on mortality among adults and the elderly, necessitates the application of modelling (based on data from other populations) to estimate life expectancy. This may lead to minor differences compared with official life tables prepared by Member States.

# Population using at least basic drinking-water services (%)

**Rationale:**

Lack of access to adequate drinking water services contributes to deaths and illness, especially in children. Water based disease transmission by drinking contaminated water is responsible for significant outbreaks of diseases such as cholera and typhoid and includes diarrheal diseases, viral hepatitis A, cholera, dysentery and dracunculiasis (Guinea worm disease). Improvement of drinking water is a crucial element in the reduction of under-five mortality and morbidity and there is evidence that ensuring higher levels of drinking water services has a greater impact. The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use. Women and children spend millions of hours each year fetching water. The chore diverts their time from other important activities (for example attending school, caring for children, participating in the economy). When water is not available on premises and has to be collected, women and girls are almost two and a half times more likely than men and boys to be the main water carriers for their families. Many international organizations use access to safe drinking water as a measure for progress in the fight against poverty, disease, and death. Economic benefits of improved drinking water services include higher economic productivity, more education, and health-care savings.

**Definition:**

The percentage of population using at least basic drinking water services, that is, the population that drinks water from an improved source, provided collection time is not more than 30 minutes for a round trip. This indicator encompasses both people using basic drinking water services as well as those using safely managed drinking water services. Improved water sources include piped water, boreholes or tubewells, protected dug wells, protected springs, and packaged or delivered water.

**Disaggregation:**

Location (urban/rural), Socioeconomic status (wealth quintiles)

**Method of measurement**

Data on improved drinking water facilities are routinely collected in household surveys and censuses. These data sources may also collect information on the location of water sources (e.g. on premises or off premises), as well as the amount of time that is required to go to the water point, collect water, and return to the household. Household-level responses, weighted by household size, are used to compute population coverage.

**M&E Framework:**

Outcome

**Method of estimation:**

The JMP assembles, reviews and assesses national data collected by statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the population using improved drinking water sources, as well as the proportion with improved water supplies on premises. Regressions are also made to estimate the population using piped water supplies; this is constrained to not exceed the estimate for total improved drinking water sources. The proportion of the population using improved drinking water facilities that accesses those facilities with a collection time of thirty minutes or less is estimated by taking an average of all available data from household surveys and censuses. Basic drinking water services are calculated by multiplying the proportion of the population using improved drinking water sources by the proportion of improved drinking water sources which don’t require more than thirty minutes for collection. Separate estimates are made for urban and rural areas, and national estimates are generated as weighted averages of the two, using population data from the most recent report of the United Nations Population Division. The most recent household survey or census available for most countries was typically conducted two to six years ago. The JMP extrapolates regressions for two years beyond the last available data point. Beyond this point the estimates remain unchanged for up to four years unless coverage is below 0.5 per cent or above 99.5 per cent, in which case the line is extended indefinitely. For more information see https://washdata.org/monitoring/methods/estimation-methods Predominant type of statistics: adjusted and predicted

**Method of estimation of global and regional aggregates:**

Regional and global estimates are weighted averages of the country data, using the population for the reference year as the weight. No estimates are reported if less than 50 per cent of the population in the region or world are covered.

**Other possible data sources:**

Administrative reporting systems

**Preferred data sources:**

Population census

Household surveys

**Unit of Measure:**

N/A

**Expected frequency of data dissemination:**

Biennial (Two years)

# Level of Current Health Expenditure expressed as a percentage of GDP

**Short name:**

CHE%GDP

**Data type:**

Percent

**Topic:**

Health systems resources

**Rationale:**

Current health expenditure as a share of GDP provides an indication on the level of resources channelled to health relative to other uses. It shows the importance of the health sector in the whole economy and indicates the societal priority which health is given measured in monetary terms.

**Definition:**

Level of Current Health Expenditure expressed as a percentage of GDP

**Method of measurement**

CHE/GDP

**Method of estimation:**

-

**Unit of Measure:**

%

# External resources for health as a percentage of total expenditure on health

Short name:

ExtHE as % of THE

Data type:

Percent

Topic:

Health systems resources

Rationale:

This is a core indicator of health financing systems. Most indicators presented in NHA involve a measurement at the level of purchaser/payer of health services. This is, however, an indicator which refers to the origin of the resources used to purchase health services. It is the only information about the sources of funds provided in these tables. The other indicators - GGHE, PvtHE etc. - are financing agents, the entities where the use of the funds are controlled. Some of these external sources will be channeled through the government's budget, some through insurance agencies, some through the private or NGO sectors. As such, these funds cannot simply be added to those reported in the earlier breakdowns. In the special case where external agencies act as domestic NGOs in providing or purchasing health care in a recipient country, they would be included as financing agents as well as a source. We provide here only the source level measurement. The analysis of financing sources contributes to identify the distribution of the financing burden of health services. This indicator contributes to assess sustainability of financing.

Definition:

External resources for health expressed as a percentage of total expenditure on health.

Method of measurement

National health accounts (NHA) indicators are based on expenditure information collected within an internationally recognized framework. This indicator traces the financing flows from external sources who provide the funds to public and private financing agents. It includes in kind and in cash resources provided as loans and grants. NHA strategy is to track records of transactions, without double counting and in order to reaching a comprehensive coverage. These resources are accounted for in the same period and amount when they are used by the financing agent. Loans are treated to be accounted only once. External funds are valued at recipients' market value Monetary and non monetary transactions are accounted for at purchasers value. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003).

M&E Framework:

Input

Method of estimation:

Care needs to be taken in interpreting external resource figures. Most are taken from the OECD DAC/CRS database except where a reliable full national health account study has been done. They are disbursements to recipient countries as reported by donors, lagged one year to account for the delay between disbursement and expenditure. Before 2002, disbursement data is not available and commitments are used. In countries where the fiscal year begins in July, expenditure data have been allocated to the later calendar year (for example, 2008 data will cover the fiscal year 200708), unless otherwise stated for the country. These data are generated from sources that WHO has been collecting for over ten years. The most comprehensive and consistent data on health financing is generated from national health accounts. Not all countries have or update national health accounts and in these instances, data is obtained through technical contacts in-country or from publicly-available documents and reports and harmonized to the NHA framework. Missing values are estimated using various accounting techniques depending on the data available for each country. The preferred data sources are NHA reports, OECD-DAC, reports by International funding agencies such as Global Fund. Other possible data sources include country reports on external sources by institution or from MoF. WHO sends estimates to the respective Ministries of Health every year for validation.

Method of estimation of global and regional aggregates:

Sum of general government expenditure on health for all countries divided by sum of total government expenditure for all countries by relevant group. WHO region, income-group and global expenditure estimates are calculated using absolute amounts in national currency units converted to Purchasing Power Parity (PPP) equivalents unless otherwise noted. Regions are based on WHO regions, income groups on the World Bank classification and the global aggregate based on all WHO Member States.

Other possible data sources:

Administrative reporting systems

Preferred data sources:

National Health Accounts

Unit of Measure:

N/A

Expected frequency of data dissemination:

Annual

Expected frequency of data collection:

Annual

Comments:

When the number is smaller than 0.05% the percentage may appear as zero. Financing sources involve a separate level of measurement to the previous indicators reported here, thus, this indicator cannot be added to those expressed as financing agents, providers or health goods and services. External resources are at this time the only source reported by WHO, thus it does not reflect the total origin of the THE. Frequent valuation at recipient country may differ to the valuation by the country providing the funds.

# Population practising open defecation (%)

**Short name:**

WSH\_SANITATION\_OD

**Data type:**

Percent

**Topic:**

Risk factors

**Rationale:**

Sanitation is fundamental to human development. Many international organizations use hygienic sanitation facilities as a measure for progress in the fight against poverty, disease, and death. Access to proper sanitation is also considered to be a human right, not a privilege, for every man, woman, and child. Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces. Inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant beneficial impact on people's health. Improvements in sanitation can reduce diarrheal disease, and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children. Diarrhoea and worm infections weaken children and make them more susceptible to malnutrition and opportunistic infections like pneumonia, measles and malaria. In 2015, 892 million people used no sanitation facilities at all, but defecated in field, bushes, water, or other places. The practice of “open defecation” leaves faeces exposed in ways that can easily lead to other people coming into contact with faecal pathogens.

**Definition:**

The percentage of the population practising open defecation is defined as the proportion of the population who usually don’t use any kind of toilet facility for defecation. Those using unimproved sanitation facilities like pit latrines without slab, open pit, or hanging latrines, are not counted as practising open defecation.

**Disaggregation:**

Location (urban/rural), Socioeconomic status (wealth quintiles)

**Method of measurement**

Data on use of sanitation facilities are routinely collected in household surveys and censuses. Commonly, a question is asked such as “what kind of toilet facility do members of your household usually use”, and a response such as “no facility / bush / field” is classified as open defecation.

**M&E Framework:**

Outcome

**Method of estimation:**

The JMP assembles, reviews and assesses national data collected by statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the proportion of the population practising open defecation. Separate estimates are made for urban and rural areas, and national estimates are generated as weighted averages of the two, using population data from the most recent report of the United Nations Population Division. The most recent household survey or census available for most countries was typically conducted two to six years ago. The JMP extrapolates regressions for two years beyond the last available data point. Beyond this point the estimates remain unchanged for up to four years unless coverage is below 0.5 per cent or above 99.5 per cent, in which case the line is extended indefinitely. For more information see https://washdata.org/monitoring/methods/estimation-methods Predominant type of statistics: adjusted and predicted

**Method of estimation of global and regional aggregates:**

Regional and global estimates are weighted averages of the country data, using the population for the reference year as the weight. No estimates are reported if less than 50 per cent of the population in the region or world are covered.

**Other possible data sources:**

proxy indicators

**Preferred data sources:**

Population census

Household surveys

**Unit of Measure:**

N/A

**Expected frequency of data dissemination:**

Biennial (Two years)

# Population using at least basic sanitation services (%)

**Short name:**

WSH\_SANITATION\_BASIC: Use of at least basic sanitation services

**Data type:**

Percent

**Topic:**

Risk factors

**Rationale:**

Sanitation is fundamental to human development. Many international organizations use hygienic sanitation facilities as a measure for progress in the fight against poverty, disease, and death. Access to proper sanitation is also considered to be a human right, not a privilege, for every man, woman, and child. Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces. Inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant beneficial impact on people's health. Improvements in sanitation can reduce diarrheal disease, and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children. Diarrhoea and worm infections weaken children and make them more susceptible to malnutrition and opportunistic infections like pneumonia, measles and malaria.

**Definition:**

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. 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.

**Disaggregation:**

Location (urban/rural), Socioeconomic status (wealth quintiles)

**Method of measurement**

Data on improved sanitation facilities are routinely collected in household surveys and censuses. These data sources may also collect information on sharing of sanitation facilities are shared among two or more households, and on emptying of on-site sanitation facilities. Household-level responses, weighted by household size, are used to compute population coverage.

**M&E Framework:**

Outcome

**Method of estimation:**

The JMP assembles, reviews and assesses national data collected by statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the population using improved sanitation facilities, as well as the proportion practising open defecation. Regressions are also made to estimate the population using improved sanitation facilities connected to sewers and septic tanks; these are constrained to not exceed the estimates for total improved facilities. The proportion of the population sharing sewered and non-sewered sanitation facilities is estimated by taking an average of all available data on sharing from household surveys and censuses. Basic sanitation services are calculated by multiplying the proportion of the population using improved sanitation facilities by the proportion of improved sanitation facilities which are not shared among two or more households. Separate estimates are made for urban and rural areas, and national estimates are generated as weighted averages of the two, using population data from the most recent report of the United Nations Population Division. The most recent household survey or census available for most countries was typically conducted two to six years ago. The JMP extrapolates regressions for two years beyond the last available data point. Beyond this point the estimates remain unchanged for up to four years unless coverage is below 0.5 per cent or above 99.5 per cent, in which case the line is extended indefinitely. For more information see https://washdata.org/monitoring/methods/estimation-methods Predominant type of statistics: adjusted and predicted

**Method of estimation of global and regional aggregates:**

Regional and global estimates are weighted averages of the country data, using the population for the reference year as the weight. No estimates are reported if less than 50 per cent of the population in the region or world are covered.

**Other possible data sources:**

Administrative reporting systems

**Preferred data sources:**

Population census

Household surveys

**Unit of Measure:**

N/A

**Expected frequency of data dissemination:**

Biennial (Two years)

# Estimate of current tobacco use prevalence (%) (age-standardized rate)

# Hepatitis B (HepB3) immunization coverage among 1-year-olds

**Short name:**

Hepatitis B (HepB3) immunization coverage among 1-year-olds (%)

**Data type:**

Percent

**Topic:**

Health service coverage

**Rationale:**

Immunization is an essential component for reducing under-five mortality. Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts. It is a good indicator of health system performance.

**Definition:**

The percentage of one-year-olds who have received three doses of hepatitis B vaccine in a given year.

**Method of measurement**

Service/facility reporting system ("administrative data"): Reports of vaccinations performed by service providers (e.g. district health centres, vaccination teams, physicians) are used for estimates based on service/facility records. The estimate of immunization coverage is derived by dividing the total number of vaccinations given by the number of children in the target population, often based on census projections. Household surveys: Survey items correspond to children’s history in coverage surveys. The principle types of surveys are the Expanded Programme on Immunization (EPI) 30-cluster survey, the UNICEF Multiple Indicator Cluster Survey (MICS), and the Demographic and Health Survey (DHS). The indicator is estimated as the percentage of children ages 12–23 months who received three doses of hepatitis B vaccine either any time before the survey.

**M&E Framework:**

Outcome

**Method of estimation:**

Distinction is made between situations where data reported by national authorities accurately reflect immunization system performance and those where the data are likely compromised and may present a misleading view of immunization coverage. While there are frequently general trends in immunization coverage levels, no attempt is made to fit data points using smoothing techniques or time series methods. The estimates are informed and constrained by the following heuristics: Country–specific: Each country's data are reviewed individually; data and information are not "borrowed" from other countries. If national data are available from a single source, the estimates are based solely on that source, supplemented with linear interpolation to impute values for years where data are not available. If no data are available for the most recent estimation period, the estimate remains the same as the previous year's. If new data or information subsequently become available, the relevant portion of the time series is updated. Consistent trends and patterns: If survey data tend to confirm (e.g., within +/- 10% points) reported data, the estimates are based on reported data. If multiple survey points show a fairly consistent relationship with the trend in reported data and the survey data are significantly different from reported data, the estimates are based on reported data calibrated to the level established by the survey data. If survey data are inconsistent with reported data and the survey data appear more reliable, coverage estimates are based on survey data and interpolation between survey data points for intervening years. If multiple data points are available for a given country, vaccine/dose, and year data points are not averaged; rather potential biases in each of the sources are considered and an attempt to construct a consistent pattern over time, choosing data with the least potential for bias consistent with temporal trends and comparisons between vaccines is made. If coverage patterns are inconsistent between vaccines and dose number, an attempt to identify and adjust for possible biases is made. If inconsistent patters are explained by programmatic (e.g., vaccine shortage) or contextual events (e.g., "international incidences") the estimates reflect the impact of these events. When faced with situations where several estimates are possible, alternative explanations that appear to cover the observed data are constructed and treated as competing hypotheses., local information is considered, potential biases in the data identified and the more likely hypothesis identified. Recall bias adjustment: In instances where estimates are based primarily on survey data and the proportion of vaccinations based on maternal recall is high, survey coverage levels are adjusted to compensate for maternal recall for multi-dose antigens (i.e., DTP, POL, HepB and Hib) by applying the dropout between the first and third doses observed in the documented data to the vaccination history reported by the child's caretaker. No coverage greater than 100%: Coverage levels in excess of 100% are occasionally reported. While such coverage levels are theoretically possible, they are more likely to be the results of systematic error in the ascertainment of the numerator or the denominator, a mid-year change in target age-groups, or inclusion of children outside the target age group in the numerator. The highest estimate of coverage is 99%. Local knowledge incorporated: By consulting local experts an attempt to put the data in a context of local events - those occurring in the immunization system (e.g. vaccine shortage for parts of the year, donor withdrawal, change in management or policies, etc.) as well as more widely-occurring events (e.g. international incidences, civil unrest, etc.) is made. Information on such events is used to support (or challenge) sudden changes in coverage levels. Description and dissemination of results: For each country, year and vaccine/dose the WHO and UNICEF estimates are presented in both graphic and tabular forms along with the data upon which they are based. The estimates are "thickened",, by providing a description of the assumptions and decisions made in developing the specific estimates. Predominant type of statistics: unadjusted and adjusted

**Method of estimation of global and regional aggregates:**

Global and regional coverage is a weighted sum of WHO/UNICEF estimates of national coverage by target population from the United Nations Population Division's World Population Prospects. The size of the target population is the national annual number of infants surviving their first year of life.

**Preferred data sources:**

Facility reporting system

Household surveys

**Unit of Measure:**

N/A

**Expected frequency of data dissemination:**

Annual

**Comments:**

The quality of the estimates are determined by the quality and availability of empirical data. Vaccination is relatively easy to measure and two methods - facility reports and surveys - have been developed, each of which, when properly designed and implemented, provides accurate and reliable direct measures of coverage levels. Implemented jointly , they provide a validation of coverage levels. However, both methods are subject to biases. In some instances, these biases may be identified and corrected and we have attempted to do so. These data are supplemented with local consultations that often explain inconsistencies and anomalies in the data and provide insight into forces that influence coverage levels. WHO and UNICEF are working closely with countries to improve the quality and usefulness of coverage monitoring data systems.

# Neonates protected at birth against neonatal tetanus (PAB) (%)

**Data type:**

Percent

**Definition:**

Proportion of infants whose mothers had two tetanus toxoid doses during the last pregnancy or had received at least TT2 (3 years protection), TT3 (5 years protection), TT4 (10 years protection) or TT5 (lifetime protection). “Protection at birth:” For prevention of neonatal and maternal tetanus, WHO recommends giving women a series of five doses of tetanus toxoid (TT). Each dose increases the level and protection against tetanus. It is assumed that a newborn is protected against tetanus at birth if the total of all doses received, including those during the last pregnancy, are as follows: • 2 doses and last dose was 3 years or less prior to the most recent delivery • 3 doses and last dose was 5 years or less prior to the most recent delivery • 4 doses and last dose was 10 years or less prior to the most recent delivery • 5 or more doses ever.

**Disaggregation:**

Sex, Education level, Boundaries : Administrative regions, Location (urban/rural)

**Method of estimation:**

-

**Preferred data sources:**

Population-based surveys

**Contact person email:**

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**Name:**

Mr Mark Landry

# Measles-containing-vaccine second-dose (MCV2) immunization coverage by the nationally recommended age (%)

**Short name:**

MCV2

**Data type:**

Percent

**Topic:**

Health service coverage

**Rationale:**

Immunization is an essential component for reducing under-five mortality. Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts. It is a good indicator of health system performance.

**Definition:**

The percentage of children who have received two doses of measles containing vaccine (MCV2) in a given year, according to the nationally recommended schedule.

**Method of measurement**

Service/facility reporting system ("administrative data"): Reports of vaccinations performed by service providers (e.g. district health centres, vaccination teams, physicians) are used for estimates based on service/facility records. The estimate of immunization coverage is derived by dividing the total number of vaccinations given by the number of children in the target population, often based on census projections. Household surveys: Survey items correspond to children’s history in coverage surveys. The principle types of surveys are the Expanded Programme on Immunization (EPI) 30-cluster survey, the UNICEF Multiple Indicator Cluster Survey (MICS), and the Demographic and Health Survey (DHS). The indicator is estimated as percentage of children who received the 2nd dose of measles containing vaccine according to the nationally recommended schedule.

**M&E Framework:**

Outcome

**Method of estimation:**

Distinction is made between situations where data reported by national authorities accurately reflect immunization system performance and those where the data are likely compromised and may present a misleading view of immunization coverage. While there are frequently general trends in immunization coverage levels, no attempt is made to fit data points using smoothing techniques or time series methods. The estimates are informed and constrained by the following heuristics: Country–specific: Each country's data are reviewed individually; data and information are not "borrowed" from other countries. If national data are available from a single source, the estimates are based solely on that source, supplemented with linear interpolation to impute values for years where data are not available. If no data are available for the most recent estimation period, the estimate remains the same as the previous year's. If new data or information subsequently become available, the relevant portion of the time series is updated. Consistent trends and patterns: If survey data tend to confirm (e.g., within +/- 10% points) reported data, the estimates are based on reported data. If multiple survey points show a fairly consistent relationship with the trend in reported data and the survey data are significantly different from reported data, the estimates are based on reported data calibrated to the level established by the survey data. If survey data are inconsistent with reported data and the survey data appear more reliable, coverage estimates are based on survey data and interpolation between survey data points for intervening years. If multiple data points are available for a given country, vaccine/dose, and year data points are not averaged; rather potential biases in each of the sources are considered and an attempt to construct a consistent pattern over time, choosing data with the least potential for bias consistent with temporal trends and comparisons between vaccines is made. If coverage patterns are inconsistent between vaccines and dose number, an attempt to identify and adjust for possible biases is made. If inconsistent patters are explained by programmatic (e.g., vaccine shortage) or contextual events (e.g., "international incidences") the estimates reflect the impact of these events. When faced with situations where several estimates are possible, alternative explanations that appear to cover the observed data are constructed and treated as competing hypotheses., local information is considered, potential biases in the data identified and the more likely hypothesis identified. Recall bias adjustment: In instances where estimates are based primarily on survey data and the proportion of vaccinations based on maternal recall is high, survey coverage levels are adjusted to compensate for maternal recall for multi-dose antigens (i.e., DTP, POL, HepB and Hib) by applying the dropout between the first and third doses observed in the documented data to the vaccination history reported by the child's caretaker. No coverage greater than 100%: Coverage levels in excess of 100% are occasionally reported. While such coverage levels are theoretically possible, they are more likely to be the results of systematic error in the ascertainment of the numerator or the denominator, a mid-year change in target age-groups, or inclusion of children outside the target age group in the numerator. The highest estimate of coverage is 99%. Local knowledge incorporated: By consulting local experts an attempt to put the data in a context of local events - those occurring in the immunization system (e.g. vaccine shortage for parts of the year, donor withdrawal, change in management or policies, etc.) as well as more widely-occurring events (e.g. international incidences, civil unrest, etc.) is made. Information on such events is used to support (or challenge) sudden changes in coverage levels. Description and dissemination of results: For each country, year and vaccine/dose the WHO and UNICEF estimates are presented in both graphic and tabular forms along with the data upon which they are based. The estimates are "thickened", by providing a description of the assumptions and decisions made in developing the specific estimates. Predominant type of statistics: unadjusted and adjusted .

**Method of estimation of global and regional aggregates:**

Global and regional coverage is a weighted sum of WHO/UNICEF estimates of national coverage by target population from the United Nations Population Division's World Population Prospects. The size of the target population is the national annual number of infants surviving their first year of life.

**Preferred data sources:**

Household surveys

Facility information systems

**Expected frequency of data dissemination:**

Annual

# General government expenditure on health as a percentage of total government expenditure.

**Short name:**

GGHE as % of GGE

**Data type:**

Percent

**Topic:**

Health systems resources

**Rationale:**

This is a core indicator of health financing systems. This indicator contributes to understand the weight of public spending on health within the total value of public sector operations. It includes not just the resources channeled through government budgets but also the expenditure on health by parastatals, extrabudgetary entities and notably the compulsory health insurance. It refers to resources collected and pooled by public agencies including all the revenue modalities.

**Definition:**

Level of general government expenditure on health (GGHE) expressed as a percentage of total government expenditure.

**Method of measurement**

National health accounts (NHA) indicators are based on expenditure information collected within an internationally recognized framework. In this indicator resources are tracked for all public entities acting as financing agents: managing health funds and purchasing or paying for health goods and services.   The NHA strategy is to track records of transactions, in order to reaching a comprehensive coverage without double counting, notably by consolidating intergovernmental transfers. Monetary and non monetary transactions are accounted for at purchasers value.   Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003).

**M&E Framework:**

Input

**Method of estimation:**

In some cases the sum of general government and private expenditures on health may not add up to 100% because of rounding. In countries where the fiscal year begins in July, expenditure data have been allocated to the later calendar year (for example, 2008 data will cover the fiscal year 200708), unless otherwise stated for the country. These data are generated from sources that WHO has been collecting for over ten years. The most comprehensive and consistent data on health financing is generated from national health accounts. Not all countries have or update national health accounts and in these instances, data is obtained through technical contacts in-country or from publicly-available documents and reports and harmonized to the NHA framework. Missing values are estimated using various accounting techniques depending on the data available for each country. The principal international references used are the EUROSTAT database, International Monetary Fund (IMF), government financial statistics and international financial statistics; OECD health data; and the United Nations national accounts statistics. National sources include National health accounts (NHA) reports, national accounts (NA) reports, general government (GG) accounts, public expenditure reviews (PER), government expenditure by purpose reports (COFOG), institutional reports of public entities involved in health care provision or financing, notably social security and other health insurance compulsory agencies and Ministry of Finance (MoF) reports. GGE reported by the Central Bank and the Ministry of Finance. Other possible data sources include executed budget and financing reports of social security and health insurance compulsory schemes, academic studies, reports and data provided by central statistical offices and ministries, statistical yearbooks and other periodicals, and on official web sites. WHO sends estimates to the respective Ministries of Health every year for validation.

**Method of estimation of global and regional aggregates:**

Sum of general government expenditure on health for all countries divided by sum of total government expenditure for all countries by relevant group. WHO region, income-group and global expenditure estimates are calculated using absolute amounts in national currency units converted to Purchasing Power Parity (PPP) equivalents unless otherwise noted. Regions are based on WHO regions, income groups on the World Bank classification and the global aggregate based on all WHO Member States.

**Other possible data sources:**

Administrative reporting systems

Special studies

**Preferred data sources:**

National Health Accounts

**Unit of Measure:**

N/A

**Expected frequency of data dissemination:**

Annual

**Expected frequency of data collection:**

Annual

**Comments:**

When the number is smaller than 0.05% the percentage may appear as zero. GGE involves all types of expenditure, current and capital. It includes too all types of revenue. GGE includes funds that are provided by donors, and channeled through the government. It is not the same as the General Government Final Consumption, which comprises only current spending.