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# Indicator Compendium

## Core Set of Indicators & Indicator Data Sheets for Health and Social Health Protection

The Core Set of Indicators and respective Indicator Data Sheets aim to pave the way towards a common understanding, greater consistency and comparability across countries and alignment of results chains of German Development Cooperation in the field of health and social health protection with the internationally recognized health systems framework of WHO and International Health Partnership (IHP+). On an international level, there is a strong differentiation made between indicators as a measure and target values of indicators, as well as in terms of the definition of target groups, time, data collection methods and questions etc. This differentiation is generally documented on a separate indicator sheet for each indicator. Data sheets included detailed information on rationale for the indicator, its definition, what is measured in denominator and nominator, preferred and alternative data sources, the level of the M+E framework, disaggregation, and limitations. This compendium is complemented by an excel tool that allows for additional filter functions according to thematic clusters, M+E level of analysis, indicator group and is available upon request.

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# A01 : Under-five mortality rate (probability of dying by age 5 per 1000 live births)

| **Under-five mortality rate (probability of dying by age 5 per 1000 live births)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Sterblichkeit unter 5 Jahren pro 1000 Lebendgeburten )** |
| **Indicator ID** |
| A01 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Under-5 mortality rate is a leading indicator of the level of child health and overall development in countries. It is also a MDG indicator |
| **Definition** |
| 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. |
| **Preferred data sources** |
| Civil registration with complete coverage |
| **Other possible data sources** |
| Household surveys, population census |
| **Method of measurement** |
| Vital registration:<br>Number of deaths by age and numbers of births and children in each age group are used to calculate age specific rates. This system provides annual data.<br>Census and surveys:<br>An indirect method is used based on questions to each woman of reproductive age as to how many children she has ever born and how many are still alive. The Brass method and model life tables are then used to obtain an estimate of under-5 mortality.<br>Surveys:<br>A direct method is used based on birth history - a series of detailed questions on each child a woman has given birth to during her lifetime. To reduce sampling errors, the estimates are generally presented as period rates, for five or 10 years preceding the survey. |
| **Method of estimation** |
| WHO produces trend of under-5 mortality rate with standardized methodology by group of countries depending on the type and quality of source of data available. For developed countries where civil registration is complete, under-5 mortality rate is computed directly from data of the civil registry if the data of the year to be estimated is available.<br>Otherwise, for each country, whenever possible, nationally representative empirical data from different sources (civil registration, household surveys, censuses) are consolidated to obtain estimates of the level and trend in under-five mortality by fitting a curve to the observed mortality points. It should be noted that in most countries without annual data from civil registry, the estimate of current year are based on projections derived from data points which refer back to at least 3-4 years.<br>The Inter-agency Group for Child Mortality of Estimation which includes representatives from UNICEF, WHO, the World Bank and the United Nations Population Division, is actively working to harmonize and carry out joint estimation.<br>Predominant type of statistics: adjusted and predicted. |
| **M&E framework** |
| Impact |

| Method of estimation of global and regional aggregates |
| --- |
| Global and regional estimates are derived from numbers of estimated deaths and population for age groups 0 year and 1-4 year, aggregated by relevant region. |
| **Disaggregation** |
| Age<br>Sex<br>Location (urban/rural)<br>Wealth : Wealth quintile<br>Education level : Maternal education<br>Boundaries : Health regions<br>Boundaries : Administrative regions |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| |
| **Comments** |
| Under-5 mortality rate, 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 1,000 live births. |
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## A02 : Neonatal mortality rate (per 1000 live births)

| **Neonatal mortality rate (per 1000 live births)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Neonatale Sterblichkeit = Todesfälle in den ersten 28 Tagen nach Geburt pro 1000 Lebendgeburten)** |
| **Indicator ID** |
| A02 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Mortality during the neonatal period accounts for a large proportion of child deaths, and is considered to be a useful indicator of maternal and newborn neonatal health and care. Generally, the proportion of neonatal deaths among child deaths under the age of five is expected to increase as countries continue to witness a decline in child mortality. |
| **Definition** |
| Number of deaths during the first 28 completed days of life per 1000 live births in a given year or other period. Neonatal deaths (deaths among live births during the first 28 completed days of life) may be subdivided into early neonatal deaths, occurring during the first 7 days of life, and late neonatal deaths, occurring after the 7th day but before the 28th completed day of life. |
| **Preferred data sources** |
| Civil registration with complete coverage |
| **Other possible data sources** |
| Household surveys |
| **Method of measurement** |
| Data from civil registration:<br>The number of live births and the number of neonatal deaths are used to calculate age-specific rates. This system provides annual data.<br>Data from household surveys:<br>Calculations are based on birth history – a series of detailed questions on each child that a woman has given birth to during the 5 or 10 years preceding the survey. The total number of live births surveyed provides the denominator. |
| **Method of estimation** |
| To ensure consistency with mortality rates in children younger than 5 years (U5MR) produced for the United Nation by the Inter-agency Group for Mortality Estimation (IGME) and to account for variation in survey-to-survey measurement errors, country data points for U5MR and the neonatal mortality rate (NMR) were rescaled for all years to match the latest time series estimates of U5MR produced by IGME. This rescaling assumes that the proportionate measurement error in NMR and U5MR is equal for each data point. For countries with high quality civil registration data covering at least 17 of the 20 years in the period 1990-2009, and with no more than two consecutive years without data, estimates were taken directly from rescaled data points from civil registration systems. For remaining countries, the following multilevel statistical model was applied to estimate neonatal mortality rates Ln(NMRI/1000) = a0+ ß1*ln(U5MR/1000) + ß2*([ln(U5MR/1000)]2) + aj[i] + ak[i] + εi, where, for observation i, aj[i] and ak[i] are country-level and region-level random effects respectively and εi is a random error term. The country-level random effect was assumed zero when we predicted for countries without country specific input data. Predominant type of statistics: adjusted and predicted |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| Average weighted by live births |

| Disaggregation |
| --- |
| Sex<br>Location (urban/rural)<br>Education level: Maternal education<br>Wealth: Wealth quintile<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| |
| **Comments** |
| The reliability of estimates of neonatal mortality depends on the accuracy and completeness of reporting and recording of births and deaths. Underreporting and misclassification are common, especially for deaths occurring early in life. |
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## A03: Children aged < 5 years underweight (%)

| **Children aged <5 years underweight (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil untergewichtiger Kinder (unter 5 Jahren) in Prozent)** |
| **Indicator ID** |
| A03 |
| **Indicator Group** |
| Health Status |
| **Rationale** |
| This indicator belongs to a set of indicators whose purpose is to measure nutritional imbalance and malnutrition resulting in undernutrition (assessed by underweight, stunting and wasting) and overweight. Child growth is the most widely used indicator of nutritional status in a community and is internationally recognized as an important public-health indicator for monitoring health in populations. In addition, children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have a greater risk of suffering illness and death. |
| **Definition** |
| Percentage of underweight (weight-for-age less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years. |
| **Preferred data sources** |
| Household surveys<br>Specific population surveys<br>Surveillance systems |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Percentage of children aged < 5 years underweight for age = (Number of children aged 0-5 years that fall below minus two standard deviations from the median weight-for-age of the WHO Child Growth Standards / Total number of children aged 0-5 years that were measured) * 100. Children`s weight and height are measured using standard technology, e.g. children less than 24 months are measured lying down, while standing height is measured for children 24 months and older. The data sources include national nutrition surveys, any other nationally representative population-based surveys with nutrition modules, and national surveillance systems. |
| **Method of estimation** |
| WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that fulfill a set of criteria. Data are checked for validity and consistency and raw data sets are analysed following a standard procedure to obtain comparable results. Prevalence below and above defined cut-off points for weight-for-age, height-for-age, weight-for-height and body mass index (BMI)-for-age, in preschool children are presented using z-scores based on the WHO Child Growth Standards. A detailed description of the methodology and procedures of the database including data sources, criteria for inclusion, data quality control and database work-flow, are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis & Blössner, 2003). Predominant type of statistics: adjusted |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| A well-established methodology for deriving global and regional trends and forecasting future trends, have been published (de Onis et al., 2004a, 2004b) |
| **Disaggregation** |
| Age |

Sex
Location (urban/rural)
Boundaries: Administrative region
Boundaries:Health regions

**Expected frequency of data collection**

Every 5 years

**Limitations**

**Comments**

The percentage of children with low height-for-age reflects the cumulative effects of under-nutrition and infections since birth, and even before birth. This measure, therefore, should be interpreted as an indication of poor environmental conditions and/or long-term restriction of a child`s growth potential. The percentage of children with low weight-for-age may reflect the less common 'wasting' (i.e. low weight-for-height) indicating acute weight loss, and/or the much more common 'stunting' (i.e. low height-for-age). Thus, it is a composite indicator that is difficult to interpret. Overweight (i.e. high weight-for -height) is an indicator of malnutrition at the other extreme. Some country populations are facing a double-burden with high prevalence of under- and overweight simultaneously. An international set of standards (i.e. the WHO Child Growth Standards) is used to calculate prevalence for the indicators low weight-for-age, low height-forage, and high weight-for-height. The International Pediatric Association (IPA), the Standing Committee on Nutrition of the United Nations System (SCN), and the International Union of Nutritional Sciences (IUNS), have officially endorsed the use of the WHO standards, describing them as an effective tool for detecting and monitoring undernutrition and overweight, thus addressing the double burden of malnutrition affecting populations on a global basis. The WHO Child Growth Standards, launched in 2006, replaces the NCHS/WHO international reference for the analysis of nutritional surveys. National nutrition surveys and national nutrition surveillance systems are the preferred primary data sources for child nutrition indicators. If these sources are not available, any random, nationally representative population-based survey with a sample size of at least 400 children that presents results based on the WHO standards or provides access to the raw data enabling re-analysis could be used. Generally national surveys are recommended to be conducted about every 5 years. But this also depends on the nutritional status as well as on the change in the economical situation, the perceived change of nutritional status, and the occurrence of human made crisis and natural disasters.

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## A04: Children aged < 5 years stunted (%)

| **Children aged <5 years stunted (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil wachstumsgestörter Kinder (unter 5 Jahren) in Prozent)** |
| **Indicator ID** |
| A04 |
| **Indicator Group** |
| Health Status |
| **Rationale** |
| This indicator belongs to a set of indicators whose purpose is to measure nutritional imbalance and malnutrition resulting in under-nutrition (assessed by underweight, stunting and wasting) and overweight.<br>Child growth is the most widely used indicator of nutritional status in a community and is internationally recognized as an important public-health indicator for monitoring health in populations. In addition, children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have a greater risk of suffering illness and death. |
| **Definition** |
| Percentage of stunting (height-for-age less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-5 years |
| **Preferred data sources** |
| Household surveys<br>Specific population surveys<br>Surveillance systems |
| **Other possible data sources** |
| **Method of measurement** |
| Percentage of children aged <5 years stunted for age = (Number of children aged 0-5 years that fall below minus two standard deviations from the median height-for-age of the WHO Child Growth Standards / Total number of children aged 0-5 years that were measured) * 100.<br>Children`s weight and height are measured using standard technology, e.g. children less than 24 months are measured lying down, while standing height is measured for children 24 months and older.<br>The data sources include national nutrition surveys, any other nationally representative population-based surveys with nutrition modules, and national surveillance systems. |
| **Method of estimation** |
| WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that fulfill a set of criteria. Data are checked for validity and consistency and raw data sets are analysed following a standard procedure to obtain comparable results. Prevalence below and above defined cut-off points for weight-for-age, height-for-age, weight-for-height and body mass index (BMI)-for-age, in preschool children are presented using z-scores based on the WHO Child Growth Standards.<br>A detailed description of the methodology and procedures of the database including data sources, criteria for inclusion, data quality control and database work-flow, are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis & Blössner, 2003). Predominant type of statistics: adjusted |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| A well-established methodology for deriving global and regional trends and forecasting future trends, have been published (de Onis et al., 2004a, 2004b) |
| **Disaggregation** |

Age
Sex
Location (urban/rural)
Boundaries : Administrative regions
Boundaries : Health regions

**Expected frequency of data collection**

Bimonthly

**Limitations**

**Comments**

The percentage of children with low height-for-age reflects the cumulative effects of under-nutrition and infections since birth, and even before birth. This measure, therefore, should be interpreted as an indication of poor environmental conditions and/or long-term restriction of a child`s growth potential. The percentage of children with low weight-for-age may reflect the less common 'wasting' (i.e. low weight-for-height) indicating acute weight loss, and/or the much more common 'stunting' (i.e. low height-for-age). Thus, it is a composite indicator that is difficult to interpret. Overweight (i.e. high weight-for -height) is an indicator of malnutrition at the other extreme. Some country populations are facing a double-burden with high prevalence of under- and overweight simultaneously.

An international set of standards (i.e. the WHO Child Growth Standards) is used to calculate prevalence for the indicators low weight-for-age, low height-forage, and high weight-for-height. The International Pediatric Association (IPA), the Standing Committee on Nutrition of the United Nations System (SCN), and the International Union of Nutritional Sciences (IUNS), have officially endorsed the use of the WHO standards, describing them as an effective tool for detecting and monitoring undernutrition and overweight, thus addressing the double burden of malnutrition affecting populations on a global basis. The WHO Child Growth Standards, launched in 2006, replaces the NCHS/WHO international reference for the analysis of nutritional surveys.

National nutrition surveys and national nutrition surveillance systems are the preferred primary data sources for child nutrition indicators. If these sources are not available, any random, nationally representative, population-based survey with a sample size of at least 400 children that presents results based on the WHO standards or provides access to the raw data enabling re-analysis could be used.

Generally national surveys are recommended to be conducted about every 5 years. But this also depends on the nutritional status as well as on the change in the economical situation, the perceived change of nutritional status, and the occurrence of human made crisis and natural disasters.

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## A05: Polio incidence (per 100000 children< 5 years)

| **Polio incidence (per 100000 children < 5 years)** |
|---|
| Häufigkeit von Polio (bei 100000 Kindern < 5 Jahren) |
| **Indicator ID** |
| A05 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Polio is targeted for eradication. Active surveillance for acute flaccid paralysis (AFP) is highly sensitive. The surveillance system includes immediate case investigation, and specimen collection which are critical for the detection of wild poliovirus circulation. The ultimate objective is polio eradication. AFP surveillance is also critical for documenting the absence of poliovirus circulation for polio-free certification.<br><br>The total number of polio cases is reported weekly to WHO.<br>Total number of reported cases of poliomyelitis is used in the compendium "World Health Statistics Indicators". |
| **Definition** |
| Reported cases of laboratory-confirmed polio cases in per 100,000 children below the age of five years<br><br>A polio case is confirmed if wild poliovirus is isolated from stool specimens collected from an acute flaccid paralysis (AFP) case. AFP is defined as sudden onset of weakness and floppiness in any part of a body of a child <15 years or age OR paralysis in a person of any age in whom polio is suspected<br><br>**Nominator:** Reported cases of laboratory-confirmed polio cases<br>**Denominator:** 100,000 children (< 5 years) in the same population |
| **Preferred data sources** |
| Active surveillance systems |
| **Other possible data sources** |
| No |
| **Method of measurement** |
| Laboratory conformation of suspected polio case based on active reporting of AFP |
| **Method of estimation** |
| WHO compiles the data as reported by national authorities |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Location (urban/rural)<br>Boundries: Administrative regions<br>Boundries: Health regions |
| **Expected frequency of data collection** |
| Annual computation of indicator (based on weekly case reporting to WHO |
| **Limitations** |
| |
| **Comments** |

| |
|---|
| The AFP surveillance system is based on an active surveillance system and is therefore quite accurate. A country should continue to report AFP cases even after interrupting wild poliovirus transmission. In those countries that have been polio free for decades, the detection rate of AFP cases is less accurate than in polio infected countries or countries at high risk of being re-infected by the polio virus. |
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## A06: Maternal mortality ratio (per 100 000 live births)

| **Maternal mortality ratio (per 100 000 live births)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Müttersterblichkeit = Todesfälle pro 100 000 Lebendgeburten)** |
| **Indicator ID** |
| A06 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Complications during pregnancy and childbirth are a leading cause of death and disability among women of reproductive age in developing countries. The maternal mortality ratio represents the risk associated with each pregnancy, i.e. the obstetric risk. It is also a Millennium Development Goal Indicator for monitoring Goal 5, improving maternal health. The indicator monitors deaths related to pregnancy and childbirth. It reflects the capacity of the health systems to provide effective health care in preventing and addressing the complications occurring during pregnancy and childbirth. |
| **Definition** |
| The maternal mortality ratio (MMR) is the annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births, for a specified year. |
| **Preferred data sources** |
| Vital registration with complete coverage and medical certification of cause of death. |
| **Other possible data sources** |
| Household surveys Population census Sample or sentinel registration systems Special studies. |
| **Method of measurement** |
| The maternal mortality ratio can be calculated by dividing recorded (or estimated) maternal deaths by total recorded (or estimated) live births in the same period and multiplying by 100,000. Measurement requires information on pregnancy status, timing of death (during pregnancy, childbirth, or within 42 days of termination of pregnancy), and cause of death. Maternal mortality ratio = (Number of maternal deaths / Number of live births) X 100,000.<br>The maternal mortality ratio can be calculated directly from data collected through vital registration systems, household surveys or other sources. However, there are often data quality problems, particularly related to the underreporting and misclassification of maternal deaths. Therefore, data are often adjusted in order to take into account these data quality issues. Adjustments for underreporting and misclassification of deaths and model based estimates should be made in the cases where data are not reliable. Because maternal mortality is a relatively rare event, large sample sizes are needed if household surveys are used. This is very costly and may still result in estimates with large confidence intervals, limiting the usefulness for cross country or overtime comparisons. To reduce sample size requirements, the sisterhood method used in the DHS surveys measures maternal mortality by asking respondents about the survival of sisters. It should be noted that the sisterhood method results in pregnancy related mortality: regardless of cause of death, all deaths occurring during pregnancy, birth, or the six weeks following the termination of the pregnancy are included in the numerator of the maternal mortality ratio. Reproductive Age Mortality Studies (RAMOS) is a special study that uses varied sources, depending on the context, to identify all deaths of women of reproductive age and ascertain which of these are maternal or pregnancy related. |
| **Method of estimation** |
| WHO, UNICEF, UNFPA and The World Bank have developed a method to adjust existing data in order to take into account these data quality issues and ensure the comparability of different data sources. This method involves assessment of data for completeness and, where necessary, adjustment for underreporting and misclassification of deaths as well as development of estimates through statistical modeling for countries with no reliable national level data. Data on maternal mortality and other relevant variables are obtained through databases maintained by WHO, UNPD, UNICEF, and WB. Data available |

from countries varies in terms of the source and methods. Given the variability of the sources of data, different methods are used for each data source in order to arrive at country estimates that are comparable and permit regional and global aggregation. Currently, only about one third of all countries/territories have reliable data available, and do not need additional estimations. For about half of the countries included in the estimation process, country-reported estimates of maternal mortality are adjusted for the purposes of comparability of the methodologies. For the remainder of countries/territories - those with no appropriate maternal mortality data - a statistical model is employed to predict maternal mortality levels. However, the calculated point estimates with this methodology might not represent the true levels of maternal mortality. It is advised to consider the estimates together with the reported uncertainty margins where the true levels are regarded to lie.

Predominant type of statistics: predicted.

**M&E framework**

Impact

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

Regional and global aggregates are based on weighted averages using the total number of live births as the weight. Aggregates are presented only if available data cover at least 50% of total live births in the regional or global grouping

**Disaggregation**

Age
Location (urban/rural)
Education level
Wealth: Wealth quintile
Boundaries: Administrative regions
Boundaries: Health regions

**Expected frequency of data collection**

Every 3-5 years

**Limitations**

Maternal mortality is difficult to measure. Vital registration and health information systems in most developing countries are weak, and thus, cannot provide an accurate assessment of maternal mortality. Even estimates derived from complete vital registration systems, such as those in developed countries; suffer from misclassification and underreporting of maternal deaths. Due to the very large confidence limits of maternal mortality estimates, the MDG statistics track trends only at the regional level. The country estimates are not suitable for assessing trends over time or for making comparisons between countries. As a result, it is recommended that process indicators, such as attendance by skilled health personnel at delivery and use of health facilities for delivery, be used to assess progress towards the reduction in maternal mortality.

**Comments**

The ability to generate country, regional, and global estimates with higher precision and accuracy would be greatly facilitated if country civil registration systems were further improved. This improvement would reduce the need to conduct special maternal mortality studies (which are time-consuming, expensive, and of limited use in monitoring trends). The maternal mortality ratio should not be confused with the maternal mortality rate (whose denominator is the number of women of reproductive age), which reflects not only the risk of maternal death per pregnancy or birth but also the level of fertility in the population. The maternal mortality ratio (whose denominator is the number of live births) indicates the risk once a woman becomes pregnant, thus does not take fertility levels in a population into consideration.

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## A07: HIV prevalence among adults aged 15 – 49 years (%)

| **HIV prevalence among adults aged 15 – 49 years (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(HIV-Prävalenz bei 15 – 49 Jährigen in Prozent)** |
| **Indicator ID** |
| A07 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| HIV and AIDS has become a major public health problem in many countries, and monitoring the course of the epidemic and impact of interventions is crucial. Both the Millennium Development Goals (MDG) and the United Nations General Assembly Special Session on HIV and AIDS (UNGASS) have set goals of reducing HIV prevalence. |
| **Definition** |
| The estimated number of adults aged 15-49 years with HIV infection, whether or not they have developed symptoms of AIDS, expressed as per cent of total population in that age group. |
| **Preferred data sources** |
| Household surveys<br>Surveillance systems |
| **Other possible data sources** |
| Household surveys |
| **Method of measurement** |
| Standardized tools and methods of estimation have been developed by UNAIDS and WHO in collaboration with the UN-AIDS Reference Group on Estimation, Modeling and Projections.<br>In countries with a generalized epidemic, national estimates of HIV prevalence are based on data generated by surveillance systems that focus on pregnant women who attend a selected number of sentinel antenatal clinics, and in an increasing number of countries on nationally representative serosurveys. In countries with a low level or concentrated epidemic national estimates of HIV prevalence are primarily based on surveillance data collected from populations at high risk (sex workers, men who have sex with men, injecting drug users) and estimates of the size of populations at high and low risk. This data is entered into the Estimation and Projection Package (EPP) software which fits a simple epidemiological model to the epidemic structure defined. EPP finds the best fitting curve that describes the evolution of adult HIV prevalence over time, and calibrates that curve based on prevalence found in any national surveys or default values in case there is no national survey available.<br>For countries with very little available prevalence data (less than three consistent surveillance sites) a point prevalence estimate and projection is made using spreadsheet models (the Workbook Method). The resulting point prevalence estimates for several years are entered into EPP to find the best fitting curve that describes the evolution of adult HIV prevalence over time.<br>(http://www.unaids.org/en/KnowledgeCentre/HIVData/Methodology/, accessed on 2 may 2010). |
| **Method of estimation** |
| The country-specific estimates of adults living with HIV, used as the numerator for this indicator, have been produced by National AIDS Programs and compiled by UNAIDS and WHO. They have been discussed with national AIDS programs for review and comments, but are not necessarily the official estimates used by national governments. For countries where no recent data were available, country-specific estimates have not been listed in the tables. (2008 Report on the Global AIDS epidemics, Annex 1). Predominant type of statistics: predicted. |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |

Regional estimates are weighed averages of the country data, using the number of population aged ≥ 15 years for the reference year in each country as the weight. No figures are reported if less than 50% of the population aged ≥ 15 years of the population is covered.

**Disaggregation**

Sex

**Expected frequency of data collection**

Biennial (Two years)

**Limitations**

**Comments**

The estimates in the 2008 Report on the Global AIDS epidemics are presented together with ranges, which reflect the certainty associated with each of the estimates. The extent of uncertainty depends mainly on the type of epidemic, and the quality, coverage and consistency of a country's surveillance system and, in generalized epidemics, whether or not a population-based survey with HIV testing was conducted.

The main indicator proposed for monitoring progress towards achieving the international goals is HIV prevalence among young people aged 15-24 years, which is a better proxy for monitoring HIV incidence. Although countries are moving towards collecting better data on young people, mainly by capturing data on young pregnant women attending antenatal clinics or national population based surveys, comparable data availability is still limited. Analysis of trends on consistent sites have been proposed as an alternative to tool to assess recent trends and countries have been encouraged to collect report HIV surveillance data by age breakdown.

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## A07a: HIV prevalence among adults according to age groups (%)

| **HIV prevalence among adults according to age groups (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(HIV-Prävalenz bei Erwachsenen in bestimmten Altersgruppen, in Prozent)** |
| **Indicator ID** |
| A07a |
| **Indicator Group** |
| Health status |
| **Rationale** |
| HIV and AIDS has become a major public health problem in many countries and monitoring the course of the epidemic and impact of interventions is crucial. Both the Millennium Development Goals (MDG) and the United Nations General Assembly Special Session on HIV and AIDS (UNGASS) have set goals of reducing HIV prevalence. |
| **Definition** |
| The estimated number of adults aged 15-49 years (or in specific age groups) with HIV infection, whether or not they have developed symptoms of AIDS, expressed as per cent of total population in that age group. |
| **Preferred data sources** |
| Household surveys<br>Surveillance systems |
| **Other possible data sources** |
| Household surveys |
| **Method of measurement** |
| Standardized tools and methods of estimation have been developed by UNAIDS and WHO in collaboration with the UN-AIDS Reference Group on Estimation, Modelling and Projections.<br>In countries with a generalized epidemic, national estimates of HIV prevalence are based on data generated by surveillance systems that focus on pregnant women who attend a selected number of sentinel antenatal clinics, and in an increasing number of countries on nationally representative serosurveys. In countries with a low level or concentrated epidemic national estimates of HIV prevalence are primarily based on surveillance data collected from populations at high risk (sex workers, men who have sex with men, injecting drug users) and estimates of the size of populations at high and low risk. This data is entered into the Estimation and Projection Package (EPP) software which fits a simple epidemiological model to the epidemic structure defined. EPP finds the best fitting curve that describes the evolution of adult HIV prevalence over time, and calibrates that curve based on prevalence found in any national surveys or default values in case there is no national survey available.<br>For countries with very little available prevalence data (less than three consistent surveillance sites) a point prevalence estimate and projection is made using spreadsheet models (the Workbook Method). The resulting point prevalence estimates for several years are entered into EPP to find the best fitting curve that describes the evolution of adult HIV prevalence over time.<br>(http://www.unaids.org/en/KnowledgeCentre/HIVData/Methodology/, accessed on 2 may 2010). |
| **Method of estimation** |
| The country-specific estimates of adults living with HIV, used as the numerator for this indicator, have been produced by National AIDS Programs and compiled by UNAIDS and WHO. They have been discussed with national AIDS programs for review and comments, but are not necessarily the official estimates used by national governments. For countries where no recent data were available, country-specific estimates have not been listed in the tables. (2008 Report on the Global AIDS epidemics, Annex 1). Predominant type of statistics: predicted. |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |

| |
|---|
| Regional estimates are weighed averages of the country data, using the number of population aged ≥ 15 years for the reference year in each country as the weight. No figures are reported oif less than 50% of the population aged ≥ 15 years of the population is covered. |
| **Disaggregation** |
| Sex<br>Age |
| **Expected frequency of data collection** |
| Biennial (Two years) |
| **Limitations** |
| |
| **Comments** |
| The estimates in the 2008 Report on the Global AIDS epidemics are presented together with ranges, which reflect the certainty associated with each of the estimates. The extent of uncertainty depends mainly on the type of epidemic, and the quality, coverage and consistency of a country's surveillance system and, in generalized epidemics, whether or not a population-based survey with HIV testing was conducted.<br><br>The main indicator proposed for monitoring progress towards achieving the international goals is HIV prevalence among young people aged 15-24 years, which is a better proxy for monitoring HIV incidence. Although countries are moving towards collecting better data on young people, mainly by capturing data on young pregnant women attending antenatal clinics or national population based surveys, comparable data availability is still limited. Analysis of trends on consistent sites have been proposed as an alternative to tool to assess recent trends and countries have been encouraged to collect report HIV surveillance data by age breakdown. |
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## A08 : STI prevalence in population sub- groups (%)

| **STI prevalence in population sub-groups (%)** |
|---|
| (Prevalence von sexuell übertragbaren Erkrankungen in Bevölkerungsgruppen) |
| **Indicator ID** |
| A 08 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Sexually Transmitted Infections (STIs) are a major cause of global ill-health. STIs are defined as infections that spread primarily through person-to-person sexual contact. However, several of these infections in particular HIV, syphilis and hepatitis B, can also be transmitted via mother-to-child-transmission during pregnancy and childbirth, blood product or tissue transfer. There are more than 30 different sexually transmissible bacteria, viruses and parasites.<br><br>Although STIs are widespread in the overall population, STIs are a particular problem in defined populations at risk such as sex workers, men who have sex with men, or injecting drug users.<br><br>As many STIs are either asymptomatic or share clinical signs and symptoms with more than one STI, STI prevalence studies ought to use sensitive and specific laboratory tests for diagnosis. |
| **Definition** |
| The number of people living with a defined STI most accurately diagnosed by highly specific and sensitive laboratory techniques during a given point in time.<br><br>**Nominator:** Number of people infected with a respective infection (in a defined age and population group) at a defined point in time<br>**Denominator:** Total people in the same defined population at a defined point in time |
| **Preferred data sources** |
| Special surveys in at-risk populations<br>Case reporting of notifiable STIs<br>Houshold surveys |
| **Other possible data sources** |
| Surveillance systems such as sentinel surveillance among pregnant women |
| **Method of measurement** |
| Special surveys are often used to establish prevalence data on selected STIs of particular interest such as gonorrhea, chlamydia or syphilis. These are usually done in selected population sub-groups, commonly high risk-group such as sex workers.<br>National representative data are rarely available, except for syphilis and HIV. Sentinel surveillance in pregnant women is established in a few countries to estimate national and sub-national syphilis prevalence. |
| **Method of estimation** |
| Survey and sentinel survey prevalence data |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Sex<br>Age<br>Wealth |

| |
|---|
| Population sub-groups |
| **Expected frequency of data collection** |
| Periodic |
| **Limitations** |
| Data from sentinel surveys in pregnant women face the problem that they are likely to overestimate the prevalence in the overall population. Pregnant women are sexually active. Data cannot be used to extrapolate prevalence for the overall population because this includes people who are and who are not sexually active. However, sentinel survey estimates in pregnant women may also underestimate prevalence due to the 'healthy pregnant women' effect which describes that healthy women are more likely to get pregnant and are thus more unlikely to have certain diseases such as chlamydia, which can cause infertility. The extent to which sentinel data in pregnant women over or under estimates population prevalence depends on the disease studied and the age group of the surveyed population. |
| **Comments** |
| Prevalence data of a few STIs might reflect changes in test sensitivity and specificity. This is one reason why in many countries the prevalence of Chlamydia has increased. Thus temporal comparison should be carefully interpreted and test sensitivity and specificity need to be taken into consideration before any conclusions can be drawn. |
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## A09 : Estimated deaths due to tuberculosis, excluding HIV (per 100 000)

| **Estimated deaths due to tuberculosis, excluding HIV (per 100 000)** |
|---|
| **(Geschätzte Todesfälle aufgrund von Tuberkulose Erkrankungen, mit Ausnahme von HIV (pro 100 000)** |
| **Indicator ID** |
| A 09 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Tuberculosis is a major health problem in many low and middle income countries. It is caused by Mycobacterium tuberculosis, which most commonly affects the lung. TB is treatable with six-month course of antibiotics but mortality is high even under treatment. TB infection is clearly interconnected with HIV infection in countries with a generalized epidemic as TB is exacerbated by a weakened immune system.<br><br>TB incidence, prevalence and mortality rates associated with TB are monitored as part of the Millennium Development Goal target 6.c.<br><br>Indicator 6.9 is defined as incidence, prevalence, and deaths rates associated with TB. The Stop TB initiative has set the target of halving the 1990 TB-prevalence and mortality rates by 2015. |
| **Definition** |
| Number of estimated deaths due to tuberculosis (TB) in a given year, expressed as the rate per 100,000 population<br><br>These include TB deaths due to smear-positive and negative pulmonary TB, extra-pulmonary TB and other forms of TB but exclude TB death in HIV-positive patients which are counted as HIV-associated deaths. |
| **Preferred data sources** |
| Vital registration<br>Mortality surveys |
| **Other possible data sources** |
| Special studies<br>Sample or sentinel registration systems<br>Specific population surveys |
| **Method of measurement** |
| Two main estimates are used:<br>Direct estimation: based on vital registration when coverage is complete and medical certification of causes of deaths is done or based on mortality surveys<br>Indirect estimation: based on TB incidence and case-fatality-rates using modeling techniques.<br><br>These estimates are produced through a consultative and analytical process led by WHO. |
| **Method of estimation** |
| Estimates of TB mortality are produced through a consultative and analytical process led by WHO and are published annually. Uncertainty bounds are provided in addition to the best estimates.<br><br>http://www.who.int/tb/publications/global_report/2011/gtbr11_full.pdf |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| Estimates are also produced at global level, as well as for WHO regions and for World Bank Income Groups. |

| Disaggregation |
| --- |
| Sex<br>Education level: maternal education<br>Wealth: wealth quintile |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Mortality due to TB can only be measured directly when there is a good death registration system, with accurate coding of cause-of-deaths.<br>The number of patients dying while receiving treatment for TB (as reported in routine follow-up of cohorts of TB patients) is not an estimation of mortality due to TB. Firstly, mortality while on treatment will include deaths from other causes than TB. Secondly the estimation would exclude deaths from TB among people which are not on treatment.<br>Mortality surveys and demographic surveillance sites using verbal autopsy to determine cause of death are potential sources of improved estimates of mortality due to TB. |
| **Comments** |
| TB death in HIV positive people are coded as HIV-associated codes and are thus not counted as TB deaths. |
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## A10 : Estimated incidence of tuberculosis (per 100 000 population)

| **Estimated incidence of tuberculosis (per 100 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Geschätzte Inzidenz von Tuberkulose, pro 100 000 Einwohner)** |
| **Indicator ID** |
| A10 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Incidence (cases arising in a given time period, usually one year) gives an indication of the burden of TB in a population, and of the size of the task faced by a national TB control programme. Incidence can change as the result of changes in transmission (the rate at which people become infected with Mycobacterium tuberculosis), or changes in the rate at which people infected with Mycobacterium tuberculosis develop TB disease (e.g. as a result of changes in nutritional status or of HIV infection). Because TB can develop in people who became infected many years previously, the effect of TB control on incidence is less rapid than the effect on prevalence or mortality. Target 6.c of the Millennium Development Goals is to "have halted by 2015 and begun to reverse the incidence of malaria and other major diseases". Indicator 6.9 is defined as "incidence, prevalence and death rates associated with TB". |
| **Definition** |
| 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. Published values are rounded to three significant figures. Uncertainty bounds are provided in addition to best estimates. See Annex 1 of WHO's 2010 report on global TB control. |
| **Preferred data sources** |
| Surveillance systems |
| **Other possible data sources** |
| Specific population surveys |
| **Method of measurement** |
| |
| **Method of estimation** |
| Estimates of TB incidence are produced through a consultative and analytical process led by WHO and are published annually. These estimates are based on annual case notifications, assessments of the quality and coverage of TB notification data, national surveys of the prevalence of TB disease and on information from death (vital) registration systems. Estimates of incidence for each country are derived using one or more of the following approaches, depending on the available data: 1. incidence = case notifications / estimated proportion of cases detected 2. incidence = prevalence / duration of condition 3. incidence = deaths / proportion of incident cases that die Uncertainty bounds are provided in addition to best estimates. Details are available from "Policy and recommendations for how to assess the epidemiological burden of TB and the impact of TB control" and Annex 1 of WHO's 2010 report on global TB control. |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| Estimates are also produced at global level, for WHO regions and for World Bank Income Groups. For methodology, see Annex 1 of WHO's 2010 report on global TB control. |
| **Disaggregation** |
| HIV status |
| **Expected frequency of data collection** |

| |
|---|
| Annual |
| **Limitations** |
| |
| **Comments** |
| Routine surveillance data provide a good basis for estimates of incidence in countries where the majority of incident cases are treated and notified to WHO. Where the proportion of cases notified is consistent over time (even if it is low), trends in incidence can be judged from trends in notified cases. Where TB control efforts change over time it is difficult to differentiate between changes in incidence and changes in the proportion of cases notified. A national surveillance system is an integral part of good TB control, and one of the components of DOTS, which forms the core of the Stop TB Strategy. As surveillance improves in countries implementing the strategy, so will estimates of the incidence of TB. |
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## A11 : Adolescent fertility rate (per 100 women, 15-19- years old)

| **Adolescent fertility rate (per 1000 women, 15-19 years old)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Fertilitätsrate bei jungen Frauen zwischen 15 und 19 Jahren pro 1000)** |
| **Indicator ID** |
| A11 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| The adolescent birth rate, technically known as the age-specific fertility rate provides a basic measure of reproductive health focusing on a vulnerable group of adolescent women. There is substantial agreement in the literature that women who become pregnant and give birth very early in their reproductive lives are subject to higher risks of complications or even death during pregnancy and birth and their children are also more vulnerable. Therefore, preventing births very early in a woman's life is an important measure to improve maternal health and reduce infant mortality.<br>Furthermore, women having children at an early age experience a curtailment of their opportunities for socio-economic improvement, particularly because young mothers are unlikely to keep on studying and, if they need to work, may find it especially difficult to combine family and work responsibilities. The adolescent birth rate provides also indirect evidence on access to reproductive health since the youth, and in particular unmarried adolescent women, often experience difficulties in access to reproductive health care. |
| **Definition** |
| The annual number of births to women aged 15-19 years per 1,000 women in that age group.<br>It is also referred to as the age-specific fertility rate for women aged 15-19. |
| **Preferred data sources** |
| Civil registration with complete coverage |
| **Other possible data sources** |
| Population census<br>Household surveys |
| **Method of measurement** |
| The adolescent birth rate is generally computed as a ratio. The numerator is the number of live births to women 15 to 19 years of age, and the denominator an estimate of exposure to childbearing by women 15 to 19 years of age. The numerator and the denominator are calculated differently for civil registration, survey and census data.<br>(a) In the case of civil registration the numerator is the registered number of live-births born to women 15 to 19 years of age during a given year, and the denominator is the estimated or enumerated population of women aged 15 to 19.<br>(b) In the case of survey data, the adolescent birth rate is generally computed based on retrospective birth histories. The numerator refers to births to women that were 15 to 19 years of age at the time of the birth during a reference period before the interview, and the denominator to person-years lived between the ages of 15 and 19 by the interviewed women during the same reference period. Whenever possible, the reference period corresponds to the five years preceding the survey. The reported observation year corresponds to the middle of the reference period. For some surveys, no retrospective birth histories are available and the estimate is based on the date of last birth or the number of births in the 12 months preceding the survey.<br>(c) In the case of census data, the adolescent birth rate is generally computed based on the date of last birth or the number of births in the 12 months preceding the enumeration. The census provides both the numerator and the denominator for the rates. In some cases, the rates based on censuses are adjusted for underregistration based on indirect methods of estimation. For some countries with no other reliable data, the own-children method of indirect estimation provides estimates of the adolescent birth rate for a number of years before the census.<br>(http://mdgs.un.org/unsd/mdg/Metadata.aspx, accessed 19 October 2009) |

| Method of estimation |
| --- |
| |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| The United Nations Population Division compiles and updates data on adolescent fertility rate for MDG monitoring. Estimates based on civil registration are provided when the country reports at least 90 per cent coverage and when there is reasonable agreement between civil registration estimates and survey estimates. Survey estimates are only provided when there is no reliable civil registration. Given the restrictions of the UN MDG database, only one source is provided by year and country. In such cases precedence is given to the survey programme conducted most frequently at the country level, other survey programmes using retrospective birth histories, census and other surveys in that order. (http://mdgs.un.org/unsd/mdg/Metadata.aspx, accessed 19 October 2009). |
| **Disaggregation** |
| Age<br>Location (urban/rural)<br>Education level<br>Wealth: Wealth quintile<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| For civil registration, rates are subject to limitations depending on the completeness of birth registration, the treatment of infants born alive but dead before registration or within the first 24 hours of life, the quality of the reported information relating to age of the mother, and the inclusion of births from previous periods. The population estimates may suffer from limitations connected to age misreporting and coverage. For survey and census data, the main limitations concern age misreporting, birth omissions, misreporting the date of birth of the child, and sampling variability in the case of surveys. (http://mdgs.un.org/unsd/mdg/Metadata.aspx, accessed 19 October 2009) |
| **Comments** |
| The adolescent birth rate is commonly reported as the age-specific fertility rate for ages 15 to 19 in the context of calculation of total fertility estimates. A related measure is the proportion of adolescent fertility measured as the percentage of total fertility contributed by women aged 15-19. (http://mdgs.un.org/unsd/mdg/Metadata.aspx, accessed 19 October 2009) |
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## A12 : Total fertility rate (per woman)

| **Total fertility rate (per woman)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Fertilitätsrate pro Frau)** |
| **Indicator ID** |
| A12 |
| **Indicator Group** |
| Demographic and socioeconomic statistics |
| **Rationale** |
| This is one of the most commonly used summary indicators of the level of fertility. An important property of the total fertility rate is that it is not affected by the age distribution of the population, although it can be affected by rapid changes in birth timing.<br>The International Conference on Population and Development (ICPD) Programme of Action encourages countries to take the necessary steps to complete a demographic transition, understanding that an imbalance between demographic rates and social, economic and environmental goals, together with unsustainable patterns of production and consumption, has serious implications for sustainable development. In countries where fertility is still high, large young populations create major challenges for health services, education and employment. As such it represents a leading indicator of future change.<br>In the absence of other information, a high fertility rate is assumed to be a general indication of health impairments and low life expectancy, low living standards, low status of women, and low levels of education. In the process of economic development and accompanying social change, the fertility and population growth rate decline as conditions improve, and potential parents choose to have fewer children by practicing contraception, which may be made available by family planning programs. Accordingly, the fertility rate is anticipated to respond to development and to the provision of family planning services and is monitored as evidence of their achievement. |
| **Definition** |
| The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman. |
| **Preferred data sources** |
| Civil registration<br>Population census |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Total fertility rate is directly calculated as the sum of age-specific fertility rates (usually referring to women aged 15 to 49 years), or five times the sum if data are given in five-year age groups. An age- or age-group-specific fertility rate is calculated as the ratio of annual births to women at a given age or age-group to the population of women at the same age or age-group, in the same year, for a given country, territory, or geographic area. Population data from the United Nations correspond to mid-year estimated values, obtained by linear interpolation from the corresponding United Nations fertility medium-variant quinquennial population projections. |
| **Method of estimation** |
| Population data are taken from the most recent United Nations Population Division's "World Population Prospects". |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| |

| Disaggregation |
| --- |
| |
| **Expected frequency of data collection** |
| |
| **Limitations** |
| |
| **Comments** |
| This indicator has close linkages with other demographic indicators, particularly with the population growth rate. The ICPD Programme of Action also emphasizes the interrelationships between fertility and mortality levels, the empowerment of women, and education particularly of women and girls. |
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## B01 : Neonates protected at birth against neonatal tetanus (PAB) (%)

| **Neonates protected at birth against neonatal tetanus (PAB) (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Impfrate der Neugeborenen gegen Tetanus)** |
| **Indicator ID** |
| B01 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Immunisation is one of the most successful and cost-effective public health interventions to protect children, adults and the whole population against many life-threatening diseases.<br>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 proportion of neonates in a given year that can be considered as having been protected against tetanus as a result of maternal immunization. |
| **Preferred data sources** |
| Variety of data sources (surveys, cohort studies, models) |
| **Other possible data sources** |
| |
| **Method of measurement** |
| |
| **Method of estimation** |
| PAB coverage is estimated using a mathematical model. PAB is the proportion of births in a given year that can be considered as having been protected against tetanus as a result of maternal immunization. In this model, annual cohorts of women are followed from infancy through their life. A proportion receive DTP in infancy (estimated based on the WHO-UNICEF estimates of DTP3 coverage). In addition some of these women also receive TT through routine services when they are pregnant and may also receive TT during Supplementary Immunization activities (SIAs). The model also adjusts reported data, taking into account coverage patterns in other years, and/or results available through surveys. The duration of protection is then calculated, based on WHO estimates of the duration of protection by doses ever received. A further description of the model can be found in: Griffiths U., Wolfson L., Quddus A.,Younus M., Hafiz R.. Incremental cost-effectiveness of supplementary immunization activities to prevent neo-natal tetanus in Pakistan. Bulletin of the World Health Organization 2004; 82:643-651<br>Predominant type of statistics: predicted |
| **M&E framework** |
| Outcome |
| **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 births. |
| **Disaggregation** |
| |
| **Expected frequency of data collection** |

| |
|---|
| Annual |
| **Limitations** |
| |
| **Comments** |
| "Protection at Birth against tetanus" is only based on protection provided through tetanus-toxoid immunization, and not through clean deliveries. The method is based on a mathematical model, and uses several inputs, each of which may have imprecise estimates:<br>- DTP3 coverage is based on WHO-UNIEF estimates, which in turn are based on reported and survey data;<br>- TT2+ among adult women is estimated using reported coverage estimates, survey results, and expert opinion.<br>- Supplemental Immunization Activities (SIAs) results are based on reported numbers, and may be imprecise and incomplete.<br>- Population figures (including target population data) may be imprecise. It is difficult to estimate what proportion of women who have been reached through SIAs had also already received tetanus vaccine through routine services. In addition, booster doses given at other ages (e.g. at 18 months or in later childhood/adolescence) are not included in the model. |
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## B02 : Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%)

| **Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Impfrate DPT3, Kinder im Alter von 1 Jahr in Prozent)** |
| **Indicator ID** |
| B02 |
| **Indicator Group** |
| 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 the combined diphtheria, tetanus toxoid and pertussis vaccine in a given year. |
| **Preferred data sources** |
| Facility reporting system<br>Household surveys |
| **Other possible data sources** |
| |
| **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 the combined diphtheria, tetanus toxoid and pertussis vaccine time before the survey. |
| **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.<br>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 years. 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.

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

**M&E framework**

Outcome

**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.

**Disaggregation**

**Expected frequency of data collection**

Annual

**Limitations**

One of the perceived weaknesses of the estimates is related to the subjective nature of our methods. Subjectivity arises primarily in 1) the choice of rules, and 2) the decision as to which rule should apply in a given circumstance. We have no theoretical foundation for our selection of rules and no validation of their reliability; the choices have been based on appeals to rationality, consistency and the lack of alternatives that produce more reasonable estimates. We are currently formalizing the rules to provide more explicit, consistent and replicable grounds for our estimates. A serious limitation of the current estimates is the absence of any articulation of uncertainty; as presented, the estimates appear equally precise and certain. The uncertainty in the estimates is rooted in the accuracy and precision of the empirical data (described above) and in the choice and application of the heuristics (model-based uncertainty). We are currently exploring methods to determine the likely error in empirical data and the additional uncertainty introduced by our methods.

**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.

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## B03 : Measles (MCV) immunization coverage among 1-year-olds (%)

| **Measles (MCV) immunization coverage among 1-year-olds (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Impfrate Masern, Kinder im Alter von 1 Jahr Prozent)** |
| **Indicator ID** |
| B03 |
| **Indicator Group** |
| 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. Percentage of children under one year of age immunized against measles is one of MDG indicators. |
| **Definition** |
| The percentage of children under one year of age who have received at least one dose of measles-containing vaccine in a given year. For countries recommending the first dose of measles vaccine in children over 12 months of age, the indicator is calculated as the proportion of children less than 12-23 months of age receiving one dose of measles-containing vaccine. |
| **Preferred data sources** |
| Facility reporting system<br>Household surveys |
| **Other possible data sources** |
| |
| **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 at least one dose of measles vaccine either any time before the survey or before the age of 12 months. |
| **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 con- |

struct 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.

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

**M&E framework**

Outcome

**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.

**Disaggregation**

**Expected frequency of data collection**

Annual

**Limitations**

One of the perceived weaknesses of the estimates is related to the subjective nature of our methods. Subjectivity arises primarily in 1) the choice of rules, and 2) the decision as to which rule should apply in a given circumstance. We have no theoretical foundation for our selection of rules and no validation of their reliability; the choices have been based on appeals to rationality, consistency and the lack of alternatives that produce more reasonable estimates. We are currently formalizing the rules to provide more explicit, consistent and replicable grounds for our estimates. A serious limitation of the current estimates is the absence of any articulation of uncertainty; as presented, the estimates appear equally precise and certain. The uncertainty in the estimates is rooted in the accuracy and precision of the empirical data (described above) and in the choice and application of the heuristics (model-based uncertainty). We are currently exploring methods to determine the likely error in empirical data and the additional uncertainty introduced by our methods.

**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. More importantly, WHO and UNICEF are working closely with countries to improve the quality and usefulness of coverage monitoring data systems.

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## B04 : Hepatitis B (HepB3) immunization coverage among 1-year-olds (%)

| **Hepatitis B (HepB3) immunization coverage among 1-year-olds (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Impfrate Hepatitis B (HepB3), Kinder im Alter von 1 Jahr Prozent)** |
| **Indicator ID** |
| B04 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| Immunization is an essential component for reducing under-five mortality.<br>Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts.<br>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. |
| **Preferred data sources** |
| Facility reporting system<br>Household surveys |
| **Other possible data sources** |
| **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.<br>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. |
| **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.<br>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 incon- |

sistent 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

**M&E framework**

Outcome

**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.

**Disaggregation**

**Expected frequency of data collection**

Annual

**Limitations**

One of the perceived weaknesses of the estimates is related to the subjective nature of our methods. Subjectivity arises primarily in 1) the choice of rules, and 2) the decision as to which rule should apply in a given circumstance. We have no theoretical foundation for our selection of rules and no validation of their reliability; the choices have been based on appeals to rationality, consistency and the lack of alternatives that produce more reasonable estimates. We are currently formalizing the rules to provide more explicit, consistent and replicable grounds for our estimates.

A serious limitation of the current estimates is the absence of any articulation of uncertainty; as presented, the estimates appear equally precise and certain. The uncertainty in the estimates is rooted in the accuracy and precision of the empirical data (described above) and in the choice and application of the heuristics (model-based uncertainty). We are currently exploring methods to determine the likely error in empirical data and the additional uncertainty introduced by our methods.

**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.

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## B05 : Polio 3 doses in 1-year-old-children (12-23 months)

| **Polio 3 doses in 1-year-old-children (12-23 months)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Dosis/Anteil an Polio 3 Impfungen in 1 jährigen Kindern (12-23 Monate alt))** |
| **Indicator ID** |
| B 5 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Immunization is an essential component of efforts for reducing under-five-mortality. Polio immunization coverage together with Diphtheria/Tetanus/Pertussis immunization coverage constitutes key indicators to monitor progress in child health.<br>Polio immunization schemes differ between countries. Countries might use the scheme: immunization at birth, 4, 8, 12 weeks or<br>3 doses within the first year of life (months 3, 4, 5) followed by two more vaccinations in month 18 and with 5 years of age.<br>Polio is targeted for eradication. High coverage levels of vaccination in children against polio need to be achieved and maintained even in polio-free regions of the world to prevent any outbreak of the wild virus.<br>Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication efforts.<br>Although it would be best to have an indicator of full immunization (5 doses) in 5 years old children to monitor full immunization status, the indicator of thee doses in 1-year-old-children is preferable due to better data availability. |
| **Definition** |
| The percentage of 1-year-old children (12-23 months) who have received three doses of polio vaccine.<br><br>**Nominator:** 1-year-old children (12-23 months) who have received three doses of polio<br>**Denominator:** All 1-year-old children (12-23 months) |
| **Preferred data sources** |
| Facility reporting systems<br>Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Service/facility based reporting systems ("administrative data"): Vaccination reports are compiled by health providers based on facility records and aggregated at district, regional and country level.<br>Vaccination coverage is estimated by dividing the total number of vaccination given by the number of children in the target population, often based on census projections.<br>Household surveys: Several household surveys assess the vaccination history of children, often supported by vaccination cards, such as the Expanded Programme on Immunization (EPI) cluster survey, the UNICEF Multiple Cluster Survey (MICS), and the Demographic and Health Surveys (DHS). |
| **Method of estimation** |
| Distinction has to be made between countries where data reported by national authorities accurately reflect immunization system performance and those where data are likely to be compromised by data quality 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 estimations are informed and constraint by the following:

Country-specific: Each country data are reviewed individually; data are not 'borrowed' from other countries. If national data are available from a single source, the estimates are based solely on that source. If no data are available for the most recent estimation period, the estimates remain the same as the previous years. If any data or information subsequently becomes available, the relevant portion of time 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 the 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 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 vaccination coverage for other vaccinations is made.

Recall bias adjustments: In instances where estimates are based primarily on survey data and the proportion of vaccinations based on maternal recall is high (as opposed to information from vaccination cards) survey coverage data are adjusted to compensate for maternal recall. This is done by applying the dropout between the first and third doses observed in documented data to the vaccination history reported by the child's caretaker.

More on methods of adjustment:

http://www.who.int/immunization_monitoring/routine/WHO_UNICEF_best_estimates.pdf

Data source

http://apps.who.int/immunization_monitoring/en/globalsummary/timeseries/tswucoveragedtp3.htm

**M&E framework**

Outcome

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

**Disaggregation**

Sex

Age

Wealth quintiles

Location (urban / rural)

Population Sub-groups (here children who lost one / or both parents)

**Expected frequency of data collection**

Annually

**Limitations**

Major limitations arise from deficiencies in the national reporting system for immunization and recall bias when caretakers are asked to report on the child's immunization status in household surveys. Still, vaccination coverage data from either source are considered as relatively accurate and reliable when implemented according to standard.

**Comments**

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## B06 : Percentage of children (aged 6-59 months), who received vitamine A supplementation

| **Percentage of children (aged 6-59 months), who received vitamine A supplementation**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der Kinder im Alter von 6-59 Monaten, die Vitamin A erhalten, in Prozent)** |
| **Indicator ID** |
| B06 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Supplementation with vitamin A is considered to be a critically important intervention for child survival owing to the strong evidence that exists for its impact on reducing child mortality. Therefore, measuring the proportion of children who have received vitamin A within the last 6 months is crucial for monitoring coverage of interventions towards the child survival-related Millennium Development Goals and Strategies. |
| **Definition** |
| Proportion of children aged 6–59 months who received a high-dose vitamin A supplement within the last 6 months. High dose vitamin A, according to the International Vitamin A Consultative Group (IVACG) definition, refers to "doses equal or greater than 25 000 IU". |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Household surveys. |
| **Method of estimation** |
| |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| WHO compiles empirical data from nationally-representative household surveys. Predominant type of statistics: adjusted |
| **Disaggregation** |
| Age<br>Location (urban/rural)<br>Education level: Maternal education<br>Wealth: Wealth quintile<br>Boundaries: Administrative region<br>Boundaries: Health region |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| These indicators are usually collected in DHS and MICS surveys; however the accuracy of reporting in household surveys varies and is likely to include recall bias. The comparability of results across countries and over time may therefore be af- |

| |
|---|
| fected. There are also significant discrepancies between data obtained through household surveys and those obtained from National Immunization Days and routine service statistics for this indicator, which are currently under investigation. |
| **Comments** |
| The framework for the discussion and review of child health indicators in the UNICEF/WHO Meeting on Child Survival Survey-based Indicators was the set of prevention and treatment interventions outlined in the Lancet series on child survival. |
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## B07 : Children aged < 5 years with diarrhea receiving oral rehydration therapy

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|---|
| **Children aged <5 years with diarrhea receiving oral rehydration therapy**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anteil der Kinder unter 5 Jahren mit Durchfall, die eine orale Rehydratationslösung erhalten, in Prozent)** |
| **Indicator ID** |
| B07 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Diarrheal diseases remain one of the major causes of mortality among under fives, accounting for 1.8 million child deaths worldwide, despite all the progress in its management and the undeniable success of the oral rehydration therapy (ORT). Therefore monitoring of the coverage of this very cost-effective intervention is crucial for the monitoring of progress towards the child survival related Millennium Development Goals and Strategies. |
| **Definition** |
| Proportion of children aged 0–59 months who had diarrhea in the last 2 weeks and were treated with oral rehydration salts or an appropriate household solution (ORT). According to DHS, the term(s) used for diarrhea should encompass the expressions used for all forms of diarrhea, including bloody stools (consistent with dysentery), watery stools, etc. It encompasses the mother`s definition as well as the 'local term(s)'. The definition of "appropriate household solution" may vary between countries. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Survey. |
| **Method of estimation** |
| |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| WHO compiles empirical data from household surveys.<br>Predominant type of statistics: adjusted |
| **Disaggregation** |
| Age<br>Location (urban/rural)<br>Education level: Maternal education<br>Wealth: Wealth quintile<br>Boundaries: Administrative region<br>Boundaries: Health region |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |

| |
|---|
| These indicators are usually collected in DHS and MICS surveys; however the accuracy of reporting in household surveys varies and is likely to include recall bias. The comparability of results across countries and over time may therefore be affected. There are also significant discrepancies between data obtained through household surveys and those obtained from National Immunization Days and routine service statistics for this indicator, which are currently under investigation. |
| **Comments** |
| The framework for the discussion and review of child health indicators in the UNICEF/WHO Meeting on Child Survival Survey-based Indicators was the set of prevention and treatment interventions outlined in the Lancet series on child survival. |
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## B08 : Children with ARI symptoms (presumed pneumonia) receiving antibiotic treatment

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|---|
| **Children with ARI symptoms (presumed pneumonia) receiving antibiotic treatment**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Kinder mit akuten Symptomen einer Atemwegsinfektion (Lungenentzündung), die Antibiotika erhalten)** |
| **Indicator ID** |
| B8 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Acute respiratory infections (ARI) including pneumonia are responsible for almost 20% of all deaths of children less than 5 years of age worldwide. Prompt care and initiation of antibiotic treatment is known to reduce mortality in children. The proportion of under-five with ARI that received antibiotic treatment is a key indicator for the coverage of intervention and care-seeking behavior. The indicator provides a critical input to the monitoring of progress towards child survival-related Millennium Development Goals and Strategies.<br>The indicator is used the Countdown to Maternal and Child health group:<br>http://www.countdown2015mnch.org/documents/2010report/CountdownProfilesOnly.pdf<br>It is also used by the Commission on information and accountability for Women's and Children's Health:<br>http://www.everywomaneverychild.org/images/content/files/accountability_commission/final_report/Final_EN_Web.pdf<br><br>A similar indicator "The proportion of under-five with ARI that are taken to an appropriate health care provider " is included n the WHO compendium "World Health Statistics": http://www.who.int/whosis/indicators/WHS2011_IndicatorCompendium_20110530.pdf |
| **Definition** |
| Proportion of children aged 0-59 months who had 'presumed pneumonia' (ARI) in the last 2 weeks and received antibiotic treatment.<br><br>**Numerator:** Number of children under age 5 with presumed pneumonia (ARI) in the previous 2 weeks who received antibiotic treatment.<br>**Denominator:** Total number of children under age 5 with presumed pneumonia (ARI) in the previous 2 weeks.<br>'ARI' stands for 'acute respiratory infection'. During the UNICEF/WHO 'Meeting on Child Survival Survey-based Indicators', held in New York, 2004, it was recommended that ARI be described as a 'presumed pneumonia' to better reflect probable cause of illness and the recommended interventions. The definition of 'ARI' used in the Multiple Indicator Cluster Surveys (MICS) was chosen by the group and is based on mothers' perception of a child who has a cough, is breathing faster than usual with short, quick breaths or is having difficulties in breathing. This definition is used to exclude children with other respiratory infection or a blocked nose. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting systems |
| **Method of measurement** |
| In DHS and MICS women with children <5 years are asked about any episode of ARI (presumed pneumonia) characterized by cough, accompanied by short, rapid breathing in the two weeks prior the survey. The mother is then asked whether the child was taken to a health facility and also whether the child received any treatment. |
| **Method of estimation** |
| UNICEF compiles information from household surveys. The countdown group publishes a report every three year.<br>Adjusted data are published by WHO/UNICEF |

| M&E framework |
| --- |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Age<br>Location (urban / rural)<br>Boundaries: administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Periodic (countdown every three years) |
| **Limitations** |
| The information is usually collected in DHS and MICS surveys; however, the accuracy of reporting in household surveys varies and is likely to be prone to recall bias. Seasonality related to the prevalence of ARI may also affect the results and their comparability between and within countries.<br>Social desirability bias might be an additional problem. A mother might respond that she consulted a health provider although she did not do as she has been advised and feels pressured to do so. |
| **Comments** |
| |
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## B09 : Children aged < 5 years sleeping under insecticide-treated nets (%)

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| **Children aged <5 years sleeping under insecticide-treated nets (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Nutzung von imprägnierten Bettnetzen bei Kindern unter 5 Jahren in Prozent)** |
| **Indicator ID** |
| B09 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| In areas of intense malaria transmission, malaria-related morbidity and mortality are concentrated in young children, and the use of insecticide-treated nets (ITN) by children under 5 has been demonstrated to considerably reduce malaria disease incidence, malaria-related anaemia and all cause under-5-mortality. In addition to being listed as an MDG indicator under Goal 6, the use of ITNs is identified by WHO as one of the main interventions to reduce the burden of malaria. |
| **Definition** |
| Percentage of children under five years of age in malaria endemic areas who slept under an insecticide-treated nets (ITN) the previous night. |
| **Preferred data sources** |
| Household surveys (DHS, MICS, MIS) |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The number of children <5 years sleeping under insecticide-treated mosquito nets = (The number of children aged 0-59 months who slept under an insecticide-treated mosquito net the night prior to the survey / The total number of children aged 0-59 months included in the survey) x 100<br>Data are derived from nationally-representative household surveys such as Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Malaria Indicator Surveys (MIS), and `rider` questions on other representative population-based surveys, that include questions on whether children under five years of age slept under an ITN the previous night. |
| **Method of estimation** |
| Data from nationally-representative household surveys, including Multiple Indicator Cluster Surveys (MICS), Demographic Health Surveys (DHS) and Malaria Indicator Surveys (MIS), are compiled in the UNICEF global databases. The data are reviewed in collaboration with Roll Back Malaria (RBM) partnership, launched in 1998 by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP) and the World Bank.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional and global estimates are based on population-weighted averages weighted by the total number of children under five years of age. These estimates are presented only if available data cover at least 50% of total children under five years of age in the regional or global groupings. |
| **Disaggregation** |
| Age |

Location (urban/rural)
Education level: Maternal education
Wealth: Wealth quintile
Boundaries: Administrative regions
Boundaries: Health regions

**Expected frequency of data collection**

Every 3-5 years

**Limitations**

The accuracy of reporting in household surveys may vary. Also, seasonal influences related to fluctuations in vector and parasite prevalence may affect level of coverage depending on timing of the data collection. Because of issues of date recall of last impregnation with insecticide, this indicator may not provide reliable estimates of net retreatment status. Furthermore, the standard survey instrument does not collect information on whether the net was washed after treatment, which can reduce its effectiveness. Typically, estimates are provided for the national level, which may underestimate the level of coverage among subpopulations living in localized areas of malaria transmission.

**Comments**

It is important to note that while the MDG indicator only refers to children aged <5 years, WHO recommends that all household members sleep under ITNs in malaria-risk areas.

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## B10 : Children aged <5 years with fever who received treatment with any antimalarial (%)

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|---|
| **Children aged <5 years with fever who received treatment with any antimalarial (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anteil der Kinder mit Fieber, die Antimalariamittel erhalten in Prozent)** |
| **Indicator ID** |
| B10 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Prompt treatment with effective antimalarial drugs for children with fever in malaria-risk areas is a key intervention to reduce mortality. In addition to being listed as a global Millennium Development Goals Indicator under Goal 6, effective treatment for malaria is also identified by WHO, UNICEF, and the World Bank as one of the main interventions to reduce the burden of malaria in Africa. In areas of sub-Saharan Africa with stable levels of malaria transmission, it is essential that prompt access to treatment is ensured to prevent the degeneration of malaria from its onset to a highly lethal complicated picture. This requires drug availability at household or community level and, for complicated cases, availability of transport to the nearest equipped facility. |
| **Definition** |
| Percentage of children aged < 5 years with fever in malaria-risk areas being treated with effective antimalarial drugs. |
| **Preferred data sources** |
| Household surveys (DHS, MICS, MIS) |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The number of children <5 years sleeping with fever who received treatment with any antimalarial = (The number of children aged 0-59 months with fever in the 2 weeks prior to the survey who received any anti-malarial medicine / The total number of children aged 0-59 months reported to have fever in the two weeks prior to the survey) x 100<br>Data are derived from household surveys such as Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Malaria Indicator Surveys (MIS). |
| **Method of estimation** |
| Data from nationally-representative household surveys, including Multiple Indicator Cluster Surveys (MICS), Demographic Health Surveys (DHS) and Malaria Indicator Surveys (MIS), are compiled in the UNICEF global databases. The data are reviewed in collaboration with Roll Back Malaria (RBM) partnership, launched in 1998 by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP) and the World Bank.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional estimates are weighted averages of the country data, using the number of children aged <5 years for the reference year in each country as the weight. No figures are reported if less than 50 per cent of children aged <5 years in the region are covered. |
| **Disaggregation** |
| Age |

| |
|---|
| Location (urban/rural)<br>Education level: Maternal education<br>Wealth: Wealth quintile<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Every 3-5 years |
| **Limitations** |
| As malaria burden reduces as a result of control efforts, all fever cases are not necessarily malaria. In addition, many countries are increasing their diagnostic capacity. Therefore, interpretation of the indicator becomes less important to measure access to antimalarial treatment. This indicator is being revised by MERG to allow disaggregated evaluation of access to those who were diagnosed. The accuracy of reporting in household surveys may vary. The indicator reports on receiving any anti-malarial medicine and includes all anti-malarial medicines, such as chloroquine, that may be less effective due to widespread resistance and treatment failures. |
| **Comments** |
| |
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## B11 : Antenatal care coverage – (at least one visit) (%)

| **Antenatal care coverage – (at least one visit) (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Teilnahme an Schwangerenvorsorge in Prozent (1 Besuch))** |
| **Indicator ID** |
| B11 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Antenatal care coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health and wellbeing and that of their infants. Receiving antenatal care at least four times, as recommended by WHO, increases the likelihood of receiving effective maternal health interventions during antenatal visits. This is an MDG indicator. |
| **Definition** |
| The percentage of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy.<br><br>**Numerator:** The number of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy<br>**Denominator:** Total number of women aged 15-49 with a live birth in the same period. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| The number of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy is expressed as a percentage of women aged 15-49 with a live birth in the same period: (Number of women aged 15-49 attended at least once during pregnancy by skilled health personnel for reasons related to the pregnancy/ Total number of women aged 15-49 with a live birth) *100<br>The indicators of antenatal care (at least one visit and at least four visits) are based on standard questions that ask if, how many times, and by whom the health of the woman was checked during pregnancy. Household surveys that can generate this indicator includes Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS) and other surveys based on similar methodologies.<br>Service/facility reporting system can be used where the coverage is high, usually in industrialized countries. |
| **Method of estimation** |
| WHO and UNICEF compile empirical data from household surveys. At the global level, data from facility reporting are not used. Before data are included into the global databases, UNICEF and WHO undertake a process of data verification that includes correspondence with field offices to clarify any questions regarding estimates.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |

UNICEF and the WHO produce regional and global estimates. These are based on population-weighted averages weighted by the total number of births. These estimates are presented only if available data cover at least 50% of total births in the regional or global groupings.

**Disaggregation**

Location (urban/rural)

Education level

Wealth: Wealth quintile

Boundaries: Administrative regions

Boundaries: Health regions

**Expected frequency of data collection**

Annual

**Limitations**

It is important to note that the MDG indicators do not capture the components of care described under "Comments" below. Receiving antenatal care during pregnancy does not guarantee the receipt of all of the interventions that are effective in improving maternal health. Receipt of antenatal care at least four times, which is recommended by WHO, increases the likelihood of receiving the interventions during antenatal visits. Although the indicator for "at least one visit" refers to visits with skilled health providers (doctor, nurse, midwife), "four or more visits" usually measures visits with any provider because national-level household surveys do not collect provider data for each visit. In addition, standardization of the definition of skilled health personnel is sometimes difficult because of differences in training of health personnel in different countries.

Recall error is a potential source of bias in the data. In household surveys, the respondent is asked about each live birth for a period up to five years before the interview. The respondent may or may not know or remember the qualifications of the person providing ANC. Discrepancies are possible if there are national figures compiled at the health facility level. These would differ from global figures based on survey data collected at the household level. In terms of survey data, some survey reports may present a total percentage of pregnant women with ANC from a skilled health professional that does not conform to the MDG definition (for example, includes a provider that is not considered skilled such as a community health worker). In that case, the percentages with ANC from a doctor, a nurse or a midwife are totaled and entered into the global database as the MDG estimate

**Comments**

WHO recommends a standard model of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content of antenatal care visits, which should include clinical examination, blood testing to detect syphilis & severe anemia (and others such as HIV, malaria as necessary according to the epidemiological context), gestational age estimation, uterine height, blood pressure taken, maternal weight / height, detection of sexually transmitted infections (STI)s, urine test (multiple dipstick) performed, blood type and Rh requested, tetanus toxoid given, iron / Folic acid supplementation provided, recommendation for emergencies / hotline for emergencies.

ANC coverage figures should be closely followed together with a set of other related indicators, such as proportion of deliveries attended by a skilled health worker or deliveries occurring in health facilities, and disaggregated by background characteristics, to identify target populations and planning of actions accordingly.

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## B11a : Antenatal care coverage – (at least four visits) (%)

| **Antenatal care coverage – (at least four visits) (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Teilnahme an Schwangerenvorsorge in Prozent (4 Besuche))** |
| **Indicator ID** |
| B11a |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Antenatal care coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health and wellbeing and that of their infants. Receiving antenatal care at least four times, as recommended by WHO, increases the likelihood of receiving effective maternal health interventions during antenatal visits. This is an MDG indicator. |
| **Definition** |
| The percentage of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy.<br><br>**Numerator:** The number of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy<br>**Denominator:** Total number of women aged 15-49 with a live birth in the same period. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| The number of women aged 15-49 with a live birth in a given time period that received antenatal care provided by skilled health personnel (doctors, nurses or midwives) at least once during pregnancy is expressed as a percentage of women aged 15-49 with a live birth in the same period: (Number of women aged 15-49 attended at least once during pregnancy by skilled health personnel for reasons related to the pregnancy/ Total number of women aged 15-49 with a live birth) *100 The indicators of antenatal care (at least one visit and at least four visits) are based on standard questions that ask if, how many times, and by whom the health of the woman was checked during pregnancy. Household surveys that can generate this indicator includes Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS) and other surveys based on similar methodologies.<br>Service/facility reporting system can be used where the coverage is high, usually in industrialized countries. |
| **Method of estimation** |
| WHO and UNICEF compile empirical data from household surveys. At the global level, data from facility reporting are not used. Before data are included into the global databases, UNICEF and WHO undertake a process of data verification that includes correspondence with field offices to clarify any questions regarding estimates.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| UNICEF and the WHO produce regional and global estimates. These are based on population-weighted averages weighted by the total number of births. These estimates are presented only if available data cover at least 50% of total |

births in the regional or global groupings.

**Disaggregation**

Location (urban/rural)

Education level

Wealth: Wealth quintile

Boundaries: Administrative regions

Boundaries: Health regions

**Expected frequency of data collection**

Annual

**Limitations**

It is important to note that the MDG indicators do not capture the components of care described under "Comments" below. Receiving antenatal care during pregnancy does not guarantee the receipt of all of the interventions that are effective in improving maternal health. Receipt of antenatal care at least four times, which is recommended by WHO, increases the likelihood of receiving the interventions during antenatal visits. Although the indicator for "at least one visit" refers to visits with skilled health providers (doctor, nurse, midwife), "four or more visits" usually measures visits with any provider because national-level household surveys do not collect provider data for each visit. In addition, standardization of the definition of skilled health personnel is sometimes difficult because of differences in training of health personnel in different countries. Recall error is a potential source of bias in the data. In household surveys, the respondent is asked about each live birth for a period up to five years before the interview. The respondent may or may not know or remember the qualifications of the person providing ANC. Discrepancies are possible if there are national figures compiled at the health facility level. These would differ from global figures based on survey data collected at the household level.

In terms of survey data, some survey reports may present a total percentage of pregnant women with ANC from a skilled health professional that does not conform to the MDG definition (for example, includes a provider that is not considered skilled such as a community health worker). In that case, the percentages with ANC from a doctor, a nurse or a midwife are totaled and entered into the global database as the MDG estimate.

**Comments**

WHO recommends a standard model of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content of antenatal care visits, which should include clinical examination, blood testing to detect syphilis & severe anemia (and others such as HIV, malaria as necessary according to the epidemiological context), gestational age estimation, uterine height, blood pressure taken, maternal weight / height, detection of sexually transmitted infections (STI)s, urine test (multiple dipstick) performed, blood type and Rh requested, tetanus toxoid given, iron / Folic acid supplementation provided, recommendation for emergencies / hotline for emergencies.

ANC coverage figures should be closely followed together with a set of other related indicators, such as proportion of deliveries attended by a skilled health worker or deliveries occurring in health facilities, and disaggregated by background characteristics, to identify target populations and planning of actions accordingly.

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## B12 : Birth attended by skilled health personnel (%)

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|---|
| **Births attended by skilled health personnel (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anteil der von medizinischem Fachpersonal betreuten Geburten in Prozent)** |
| **Indicator ID** |
| B12 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| All women should have access to skilled care during pregnancy and childbirth to ensure prevention, detection and management of complications. Assistance by properly trained health personnel with adequate equipment is key to lowering maternal deaths. As it is difficult to accurately measure maternal mortality, and model based estimates of the maternal mortality ratio cannot be used for monitoring short term trends, the proportion of births attended by skilled health personnel is used as a proxy indicator for this purpose. This is an MDG indicator. |
| **Definition** |
| The proportion of births attended by skilled health personnel<br><br>**Numerator:** The number of births attended by skilled health personnel (doctors, nurses or midwives) trained in providing life saving obstretric care, including giving the necessary supervision, care and advice to women during pregnancy, childbirth and the post-partum period; to conduct deliveries on their own; and to care for newborns.<br>**Denominator:** The total number of live births in the same period. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| The percentage of births attended by skilled health personnel is calculated as the number of births attended by skilled health personnel (doctors, nurses, midwives) expressed as the total number of births in the same period.<br>Births attended by skilled health personnel = (Number of births attended by skilled health personnel / Total number of live births) x 100. In household surveys, such as the Demographic and Health Surveys, the Multiple Cluster Indicator Surveys, and the Reproductive Health Surveys, the respondent is asked about each live birth and who had helped them during delivery for a period up to five years before the interview. Service/ facility records could be used where a high proportion of births occur in health facilities and therefore are recorded. |
| **Method of estimation** |
| Data for global monitoring are reported by UNICEF and WHO. These agencies obtain the data from national sources, both survey and registry data. Before data can be included in the global data bases, UNICEF and WHO undertake a process of data verification that includes correspondents with field offices to clarify any questions. In terms of survey data, some survey reports may present a total percentage of births attended by a type of provider that does not conform to the MDG definition (e.g., total includes provider that is not considered skilled, such as a community health worker). In that case, the percentage delivered by a physician, nurse, or a midwife are totaled and entered into the global database as the MDG estimate.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are weighted averages of the country data, using the number of live births for the reference |

year in each country as the weight. No figures are reported if less than 50 percent of the live births in the region are covered.

**Disaggregation**

Location (urban/rural)

Education level

Wealth: Wealth quintile

Health personnel

Place of Delivery

Boundaries: Administrative regions

Boundaries: Health regions

**Expected frequency of data collection**

Annual

**Limitations**

The indicator is a measurement of a health system´s ability to provide adequate care during birth, a period of elevated mortality and morbidity risk for both, mother and newborn. However, this indicator may not adequately capture women´s access to good quality care, particularly when complications arise. In order to effectively reduce maternal deaths skilled health personnel should have the necessary equipment and adequate referral options. Standardizations of the definition of skilled health personnel is sometimes difficult because of differences in training of health personnel in different countries. Although efforts have been made to standardize the definitions of doctors, nurses, midwives and auxiliary midwives used in most household surveys, it is probable that many skilled birth attendants ability to provide appropriate care in an emergency depends on the environment in which they work. Recall error is another potential source of bias in the data. In household surveys, the respondent is asked about each live birth for a period up to five years before the interview. The respondent may or may not know or remember the qualifications of the attendant at delivery. In the absence of survey data, some countries may have health facility data. However, it should be noted that the data may overestimate the proportion of deliveries attended by a skilled professional because the denominator might not capture all women who deliver outside of health facilities.

**Comments**

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## B13 : Birth by caesarean section (%)

| |
|---|
| **Births by caesarean section (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anteil der Kaiserschnittentbindungen an den Geburten)** |
| **Indicator ID** |
| B13 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| The percentage of births by caesarean section is an indicator of access to and use of health care during childbirth. |
| **Definition** |
| Percentage of births by caesarean section among all live births in a given time period. |
| **Preferred data sources** |
| Facility reporting system<br>Household Surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Household surveys: birth history—detailed questions on the last-born child or all children a woman has given birth to during a given period preceding the survey (usually 3 to 5 years), including characteristics of the birth(s). The number of live births to women surveyed provides the denominator. Service or facility records: the number of women having given birth by caesarean section (numerator).<br>Census projections or, in some cases, vital registration data can be used to provide the denominator (numbers of live births). |
| **Method of estimation** |
| WHO compiles empirical data from household surveys for this indicator.<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional estimates are weighted averages of the country data, using the number of live births for the reference year in each country as the weight. No figures are reported if less than 50 per cent of live births in the region are covered. |
| **Disaggregation** |
| Location (urban/rural)<br>Education level: Maternal education<br>Wealth: Wealth quintile<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Annual |

| **Limitations** |
| --- |
| This indicator does not provide information on the reason for undergoing caesarean section, and includes caesarean sections that were performed without a clinical indication as well as those that were medically indicated. The extent to which caesarean sections are performed according to clinical need, is not possible to determine. |
| **Comments** |
| |
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## B14 : Ratio of newborns receiving post-natal care (%)

| **Ratio of newborns receiving post-natal care (%)** |
|---|
| **(Anteil der Neugeborenen in post-nataler Betreuung, in Prozent)** |
| **Indicator ID** |
| B 14 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| All mothers and newborn should have access to quality postnatal care best within the first few hours after giving birth. The postnatal care package should include essential newborn interventions such as promotion of breastfeeding, clean cord care, care for underweight babies or babies born too early (Mother Kangaroo Care, MKC), early detection of complication as well as information on danger sign and promotion of early care seeking.<br><br>Both the content of the package, the timing and the qualification of the provider is important. Different models have been employed including the use of community health workers. |
| **Definition** |
| The proportion of newborn who received postnatal care within two days of childbirth.<br><br>**Numerator:** The number of newborns receiving postnatal care within 2 days of childbirth<br>**Denominator:** The total number of live births in the same period.<br><br>Postnatal care policies still vary between countries. The post-natal period is defined as the time from birth up to 42 days. However, research in the past few years has found strong evidence that early postnatal care (within 2 days) is most important for mothers and their newborns. In the DHS mothers are asked about care received within the first 4 hours, within 24 hours, within 2 days and the first 6 weeks. DHS also asks the mothers about the qualification of the person providing postnatal care.<br>Against the newly established evidence it is most rational to prioritize the indicator assessing care within 2 days of childbirth. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| The percentage of newborn receiving post-natal care within 2 days expressed as percentage of the total number of live births in the same period. |
| **Method of estimation** |
| Data for global monitoring are reported by UNICEF and WHO. These agencies obtain the data from national sources, both survey and registry data. Before data can be included in the global data bases, UNICEF and WHO undertake a process of data verification that includes correspondents with field offices to clarify any questions.<br>The countdown to 2015 group for maternal, newborn and child health group reports on this indicator every three years.<br>http://www.countdown2015mnch.org/ |
| **M&E framework** |

| |
|---|
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Location (urban / rural)<br>Education level: maternal education<br>Wealth quintiles<br>Type of health personnel<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Periodic / countdown produces a report every 3 years |
| **Limitations** |
| Country policies are likely to differ so that timing of post-natal care might vary between countries. Moreover the content of the care package for mothers is still relatively vague whereas the package for the newborn is more developed.<br>Recall bias has to be considered in all data collected on care seeking behavior using household surveys particular if longer recall periods such as for a period up to five years before the interview are used. The respondent may or may not know or remember the timing of postnatal care correctly.<br>In the absence of survey data, some countries may produce estimates based on health facility records, but this data might be incorrect if the total number of live births is over or underestimated. |
| **Comments** |
| |
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## B14a : Ratio of women receiving post-natal care (%)

| **Ratio of women receiving post-natal care (%)** |
|---|
| **(Anteil der Frauen mit post-nataler Betreuung, in Prozent)** |
| **Indicator ID** |
| B 14a |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| All mothers and newborn should have access to quality postnatal care, best within the first few hours after giving birth. The postnatal care package should include essential newborn interventions such as promotion of breastfeeding, clean cord care, care for underweight babies or babies born too early (Mother Kangaroo Care, MKC), early detection of complication as well as information on danger sign and promotion of early care seeking.<br>Both the content of the package, the timing and the qualification of the provider is important. Different models have been employed including the use of community (lay people, formally not recognized as health workers ) health workers. |
| **Definition** |
| The proportion of mothers who received postnatal care within two days of childbirth.<br>Postnatal care is important to detect early complications of childbirth such as fistulae, puerperal infection or anemia as well as to inform on family planning.<br>Postnatal care policies still vary between countries. The post-natal period is defined as the time from birth up to 42 days. However, research in the past few years has found strong evidence that early postnatal care (within 2 days) is most important for mothers and their newborns. In the DHS mothers are asked about care received within the first 4 hours, within 24 hours, within 2 days and the first 6 weeks. DHS also asks the mothers about the qualification of the person providing postnatal care.<br>Against the newly established evidence of the importance of early post-partum care on health of newborns it is most rational to prioritize the indicator assessing care within 2 days of childbirth.<br><br>**Numerator:** The number of mothers who received postnatal care for themselves within 2 days of childbirth.<br>**Denominator:** The total number of live births in the same period. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| The percentage of mothers receiving post-natal care within 2 days expressed as percentage of the total number of live births in the same period. |
| **Method of estimation** |
| Data for global monitoring are reported by UNICEF and WHO. These agencies obtain the data from national sources, both survey and registry data. Before data can be included in the global data bases, UNICEF and WHO undertake a process of data verification that includes correspondents with field offices to clarify any questions.<br>The countdown to 2015 group for maternal, newborn and child health group reports on this indicator every three years.<br>http://www.countdown2015mnch.org/ |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |

| |
|---|
| **Disaggregation** |
| Location (urban / rural)<br>Education level: ‚maternal education<br>Wealth: Wealth quintile<br>Type of Health personnel<br>Boundaries: Administrative regions<br>Boundaries: Health regions |
| **Expected frequency of data collection** |
| Periodic / countdown produces a report every 3 years |
| **Limitations** |
| Country policies are likely to differ so that timing of post-natal care might vary between countries. Moreover the content of the care package for mothers is still relatively vague whereas the package for the newborn is more developed.<br>Recall bias has to be considered in all data collected on care seeking behavior using household surveys particular if longer recall periods such as for a period up to five years before the interview are used. The respondent may or may not know or remember the timing of postnatal care correctly.<br>In the absence of survey data, some countries may produce estimates based on health facility records, but this data might be incorrect if the total number of live births is over or underestimated. |
| **Comments** |
| Although both, mother with a live birth and mothers who had a stillbirth would need post-natal care, live birth is used as a denominator. This is because live births are generally better documented. Still, post-natal care for women with a stillbirth is important e.g. to discuss family planning. |
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## B15 : Exclusive breastfeeding under 6 months (%)

| **Exclusive breastfeeding under 6 months (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Exklusiv nur mit Muttermilch stillen, unter 6 Monaten Prozent)** |
| **Indicator ID** |
| B15 |
| **Indicator Group** |
| Risk factor |
| **Rationale** |
| This indicator belong to a set of indicators whose purpose is to measure infant and young child feeding practices, policies and programmes.<br>Infant and young child feeding practices directly affect the nutritional status and survival of children. Exclusive breastfeeding is the single most effective intervention to improve the survival of children. Improving infant and young child feeding practices is therefore critical to improved nutrition, health and development of children. |
| **Definition** |
| Proportion of infants 0–5 months of age who are fed exclusively with breast milk. |
| **Preferred data sources** |
| Household surveys<br>Specific population surveys<br>Surveillance systems |
| **Other possible data sources** |
| **Method of measurement** |
| Percentage of infants 0–5 months of age who are fed exclusively with breast milk = (Infants 0–5 months of age who received only breast milk during the previous day/Infants 0–5 months of age) x 100.<br>Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) include questions on liquids and foods given the previous day, and number of milk feeds the previous day, to learn if the child is being exclusively breastfed. |
| **Method of estimation** |
| WHO maintains the WHO Global Data Bank on Infant and Young Child Feeding, which pools information mainly from national and regional surveys, and studies dealing specifically with the prevalence and duration of breastfeeding and complementary feeding. The process includes data checking and validation.<br>Predominant type of statistics: adjusted. |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| Sex<br>Location (urban/rural)<br>Boundaries : Administrative regions<br>Boundaries : Health regions |
| **Expected frequency of data collection** |
| Continuous |

| **Limitations** |
| --- |
| Various countries are still collecting information on under-four months old, hence affecting the results and comparability. Many developed countries do not collect this information regularly. |
| **Comments** |
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## B16: Contraceptive prevalence among woman aged 15-49 years (%)

| |
|---|
| **Contraceptive prevalence among women aged 15-49 years (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Verwendungsrate von Kontrazeptiva in Prozent (15-49 Jahre))** |
| **Indicator ID** |
| B16 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Contraceptive prevalence rate is an indicator of health, population, development and women's empowerment. It also serves as a proxy measure of access to reproductive health services that are essential for meeting many of the Millennium Development Goals, especially those related to child mortality, maternal health, HIV/AIDS, and gender equality. |
| **Definition** |
| The percentage of women aged 15-49 years, married or in-union, who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Contraceptive prevalence = (Women of reproductive age (15-49) who are married or in union and who are currently using any method of contraception / Total number of women of reproductive age (15-49) who are married or in union) x 100 Household surveys that can generate this indicator includes Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS) and other surveys based on similar methodologies. |
| **Method of estimation** |
| The United Nations Population Division compiles data from nationally representative surveys including the Demographic and Health Surveys (DHS), the Fertility and Family Surveys (FFS), the CDC-assisted Reproductive Health Surveys (RHS), the Multiple Indicator Cluster Surveys (MICS) and national family planning, or health, or household, or socio-economic surveys. In general, all nationally representative surveys with comparable questions on current use of contraception are included. There is no attempt to provide estimates when country data are not available The results are published regularly in the World Contraceptive Use report. (http://unstats.un.org/unsd/mdg/Metadata.aspx , accessed on 7 April 2010)<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional and global estimates are based on weighted averages, using the total number of women of reproductive age (15-49) who are married or in union. These estimates are presented only if available data cover at least 50% of total number of women of reproductive age (15-49) who are married or in union in the regional or global groupings. |
| **Disaggregation** |
| Age<br>Location (urban/rural)<br>Education level |

Wealth: Wealth quintile

Marital Status

Method of Contraception

Boundaries: Administrative regions

**Expected frequency of data collection**

Biennial (Two years)

**Limitations**

Contraceptive prevalence is generally estimated from nationally representative sample survey data. Differences in the survey design and implementation, as well as differences in the way survey questionnaires are formulated and administered can affect the comparability of the data. The most common differences relate to the range of contraceptive methods included and the characteristics (age, sex, marital or union status) of the persons for whom contraceptive prevalence is estimated (base population).

The time frame used to assess contraceptive prevalence can also vary. In most surveys there is no definition of what is meant by "currently using" a method of contraception. When data on contraceptive use among married or in-union women aged 15 to 49 are not available, information on contraceptive prevalence for the next most comparable group of persons is reported. Illustrations of base populations that are sometimes presented are: sexually active women (irrespective of marital status), ever-married women, or men and women who are married or in union. When information on current use is not available, data on use of contraceptive methods at last sexual intercourse or during the previous year are utilized.

Footnotes are employed to indicate any differences between the data presented and the standard definition of contraceptive prevalence. In some surveys, the lack of probing questions, asked to ensure that the respondent understands the meaning of the different contraceptive methods, can result in an underestimation of contraceptive prevalence, in particular for non-traditional methods. Sampling variability can also be an issue, especially when contraceptive prevalence is measured for a specific subgroup (according to method, age-group, level of educational attainment, place of residence, etc) or when analyzing trends over time. (http://unstats.un.org/unsd/mdg/Metadata.aspx , accessed on 7 April 2010)

**Comments**

The indicator "unmet need for family planning" provides complementary information to contraceptive prevalence.

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## B17 : Unmet need for family planning among woman aged 15 – 49 years (%)

| |
|---|
| **Unmet need for family planning among women aged 15 - 49 years (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Ungedeckter Bedarf an Familienplanung in Prozent verheirateter Frauen zwischen 15 und 49)** |
| **Indicator ID** |
| B17 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Unmet need for family planning provides a measurement of the ability of women in achieving their desired family size and birth spacing. It also provides an indication of the success of reproductive health programmes in addressing demand for services. Unmet need complements the contraceptive prevalence rate by indicating the additional extent of need to delay or limit births. Unmet need is a rights-based measure that helps determine how well a country's health system and social conditions support the ability of women to realize their stated preference to delay or limit births. |
| **Definition** |
| The proportion of women of reproductive age (15-49 years) who are married or in union and who have an unmet need for family planning, i.e. who do not want any more children or want to wait at least two years before having a baby, and yet are not using contraception. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Unmet need for family planning = (Women who are married or in a consensual union who have an unmet need for family planning / Total number of women of reproductive age (15-49 years) who are married or in consensual union) x 100<br>Included in the numerator:<br>• All pregnant women (married or in consensual union) whose pregnancies were unwanted or mistimed at the time of conception.<br>• All postpartum amenorrheic women (married or in consensual union) who are not using family planning and whose last birth was unwanted or mistimed.<br>• All fecund women (married or in consensual union) who are neither pregnant nor postpartum amenorrheic, and who either do not want any more children (limit), or who wish to postpone the birth of a child for at least two years or do not know when or if they want another child (spacing), but are not using any contraceptive method.<br><br>Excluded from the numerator of the unmet need definition are pregnant and amenorrheic women who became pregnant unintentionally due to contraceptive method failure (these women are assumed to be in need of a better contraceptive method). Also excluded from the unmet need definition are infecund women. Women are assumed to be infecund if: 1) they have been married for five or more years AND 2) there have been no births in the past five years AND 3) they are not currently pregnant AND 4) they have never used any kind of contraceptive method OR 5) they self-report that they are infecund, menopausal or have had a hysterectomy. Women who are married or in a consensual union are assumed as sexually active. If unmarried women are to be included in the calculation of UMN (in national monitoring), as a standard measure, they are assumed to be sexually active (and thus included in the numerator) if they have had intercourse in the month prior to the survey interview. Data to measure this indicator are collected in household surveys, including Demographic and Health Surveys (DHS), Reproductive Health Surveys (RHS), Fertility and Family Surveys (FFS), and other national survey efforts incorporating the DHS methodology (e.g. in India). |
| **Method of estimation** |

The United Nations Population Division compiles and updates unmet need for family planning (UMN) data. Data are obtained from surveys including Demographic and Health Surveys (DHS), Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS) and national surveys based on similar methodologies. When the information needed to calculate UMN is not available, the indicator is not estimated.

Predominant type of statistics: adjusted

**M&E framework**

Outcome

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

Regional estimates are weighted averages of the country data, using the number of women of reproductive age (15-49) who are married or in consensual union for the reference year in each country as the weight. No figures are reported if less than 50 per cent of women of reproductive age (15-49) who are married or in consensual union in the region are covered.

**Disaggregation**

Location (urban/rural)

Education level

Wealth: Wealth quintile

Health personnel

Place of Delivery

Boundaries: Administrative regions

Boundaries: Health regions

**Expected frequency of data collection**

Annual

**Limitations**

According to the standard definition, women who are using a traditional method of contraception are not considered as having an unmet need for family planning. As traditional methods are considerably less effective than modern methods, additional analyses often distinguish between traditional and modern methods and also report on unmet need for effective contraception. In some countries DHS samples do not include non-married or non-consensual union women. These women are not considered to be sexually active, while married women are assumed to be sexually active and at risk of pregnancy. The assumption of universal exposure among married women increases the estimate. (Additional questions probing reasons for non-use of family planning often elicit reports of low risk due to infrequent sexual activity, including spousal separation resulting from labor migration.) In some instances, it might be possible, in particular at low levels of contraceptive prevalence that, when contraceptive prevalence increases, unmet need for family planning also increase. Such a trend shows increased demand in a population where contraceptive supply cannot keep up with. Both indicators therefore need to be interpreted together.

**Comments**

The indicator “unmet need for family planning” provides complementary information to contraceptive prevalence.

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## B18 : Prevalence of condom use by adults (15-49 years) in high risk sex (%)

| **Prevalence of condom use by adults (15-49 years) in high risk sex (%)** |
|---|
| **(Prävalenz der Kondomnutzung unter Erwachsenen (15-49 Jahre) bei risikoreichem Sex, in Prozent)** |
| **Indicator ID** |
| B18 |
| **Indicator Group** |
| Health Service Coverage / Risk protection |
| **Rationale** |
| Condom use is an important barrier method to protect against HIV, other sexual transmitted infection and unwanted pregnancy.<br>The condom use in men and women gives an indication how well the population is informed about the advantages of condom use, as well as the accessibility and acceptability of condoms in a given society. of condom use in higher risk sex gives an indication on risk protection.<br>A rise in this indicator is an extremely powerful indication that condom promotion campaigns are having the desired effect among their principal target groups and markets.<br>Condoms are most effective when their use is consistent, rather than occasional. Condom use at last high risk sexual intercourse (e,g. frequent change of partners) is used as an indicator to monitor progress to reach MDG 6a: to have halted by 2015 and begun to reverse the spread of HIV/AIDS. Also the indicator condom use at first sexual intercourse is widely used. The different indicators of condom use in the adult population, in higher risk sex or youth should be viewed and interpreted in combination, in order to gain an overall picture of the acceptance of condom use and risk protection. |
| **Definition** |
| The proportion of women and men aged 15-49 who had more than one partner in the past 12 months reporting the use of a condom during their last sexual intercourse. To date, the most common way of dividing relationships into high and low risk has been using a simple measure of time: any (nonmarital) relationship that has lasted or is expected to last for more than a year is classified as regular, while any other relationship is classified as nonregular.<br>However, sex with any noncohabiting partner is considered to be higher risk than with a cohabiting partner, regardless of the duration of the relationship. This definition has the advantage that it is equally valid for all age groups.<br><br>**Numerator**: The number of respondents who report using a condom the last time they had sex with a nonmarital, noncohabiting partner.<br>**Denominator:** All respondents (15-49 years) who reported having had more than one sexual partner in the past 12 months |
| **Preferred data sources** |
| Behavioral surveys / Special survey<br>Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Questions used in behavioral surveys include the assessment of sexual intercourse within the last year with regular/cohabiting partners and or non-marital/non-cohabiting partners and condom use at last sexual intercourse. |
| **Method of estimation** |
| |
| **M&E framework** |
| Outcome |

| Method of estimation of global and regional aggregates |
| --- |
| |
| **Disaggregation** |
| Location (urban/rural)<br>Education level<br>Wealth quintile<br>Sex |
| **Expected frequency of data collection** |
| |
| **Limitations** |
| The indicator shows the extent to which condoms are used by people who are likely to have high risk sex . However, the broader significance of any given indicator value will depend upon the extent to which people engage in such relationships. Thus, the level and trends should be interpreted carefully.<br>The main limitation of the indicator is that it does not reflect whether condom use is consistent rather than occasionally.<br>Since condom promotion campaigns are aiming for consistent use of condoms with nonregular partners rather than simply occasional use, some surveys have tried to ask directly about consistent use, often using an always/sometimes/never question. While this may be useful in subpopulation surveys, it is subject to recall and other biases and is not sufficiently robust for use in a general population survey. Asking about the most recent act of noncohabiting sex minimizes recall bias and gives a good cross-sectional picture of levels of condom use. Inevitably, if consistent use rises, the indicator will also rise. |
| **Comments** |
| |
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## B18a : Prevalence of condom use at last high risk sex in youth (15-24 years) (%)

| **Prevalence of condom use at last high risk sex in youth (15-24 years) (%)** |
|---|
| **(Prävalenz der Kondomnutzung unter Jugendlichen (15-24 Jahre)beim letzten risikoreichen Sex, in Prozent)** |
| **Indicator ID** |
| B18a |
| **Indicator Group** |
| Health Service Coverage / Risk Factor |
| **Rationale** |
| Condom use is an important barrier method to protect against unwanted pregnancy, HIV and sexual transmitted infection.<br>The frequency of Condom use in men and women gives an indication how well the population is informed about the advantages of condom use, as well as the accessibility and acceptability of condoms in a given society. Condom use in youth is particularly important as this group is most vulnerable for sexually transmitted infection and unwanted pregnancies.<br>A rise in this indicator is an extremely powerful indication that condom promotion campaigns are having the desired effect among their principal target groups markets.<br>Condoms are most effective when their use is consistent, rather than occasional. Condom use at last high risk sexual intercourse (e.g. frequent change of partners) is used as an indicator to monitor progress to reach MDG 6a: to have halted by 2015 and begun to reverse the spread of HIV/AIDS. Condom use in youth 15-24 years is part of the country progress indicators collected by UNAIDS.<br>The different indicators on condom use in the adult population, in higher risk sex and youth should be viewed and interpreted in combination, in order to get an overall picture on acceptance of condom use and risk protection. |
| **Definition** |
| The proportion of youth (15-24 years) who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner of those who had sex with such a partner during the last 12 months.<br>To date, the most common way of dividing relationships into high and low risk has been using a<br>simple measure of time: any (nonmarital) relationship that has lasted or is expected to last for<br>more than a year is classified as regular, while any other relationship is classified as nonregular.<br>However, sex with any noncohabiting partner is considered to be higher risk than with a cohabiting partner, regardless of the duration of the relationship. This definition has the advantage that it is equally valid for all age groups.<br><br>**Numerator**: Youth (15-24 years) who reported having had had sex with a non-marital, non-cohabiting partner and who also report that they use condom at last sexual intercourse<br>**Denominator**: All respondents (15-24 years) who reported having had had sex with a non-marital, non-cohabiting partner in the past 12 months |
| **Preferred data sources** |
| Behavioral surveys / Special survey<br>Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Questions used in behavioral surveys include the assessment of sexual intercourse within the last year with regular/cohabiting partners and or non-marital/non-cohabiting partners and condom use at last sexual intercourse. |
| **Method of estimation** |
| |
| **M&E framework** |

| |
|---|
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Location (urban/rural)<br>Education level<br>Wealth quintile<br>Sex |
| **Expected frequency of data collection** |
| |
| **Limitations** |
| The indicator shows the extent to which condoms are used by youth who are likely to have higher-risk sex (e.g. with a non–cohabiting partner). However, the broader significance of any given indicator value will depend upon the extent to which people engage in such relationships, Thus, the level and trends should be interpreted carefully.<br>The main limitation of the indicator (as all indicators assessing condom use) is that he does not access whether condom use is consistent rather than occasionally.<br>Since condom promotion campaigns are aiming for consistent use of condoms with nonregular partners rather than simply occasional use, some surveys have tried to ask directly about consistent use, often using an always/sometimes/never question. While this may be useful in subpopulation surveys, it is subject to recall and other biases and is not sufficiently robust for use in a general population survey. Asking about the most recent act of noncohabiting sex minimizes recall bias and gives a good cross-sectional picture of levels of condom use. Inevitably, if consistent use rises, the indicator will also rise. |
| **Comments** |
| |
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## B18b : Prevalence of condom use in sex workers (%)

| **Prevalence of condom use in sex workers (%)** |
|---|
| **(Prävalenz der Kondomnutzung unter Sexarbeiter/-innen (%)** |
| **Indicator ID** |
| B18b |
| **Indicator Group** |
| Health Service Coverage / Risk Factors |
| **Rationale** |
| Condom use is an important barrier method to protect against HIV, unwanted pregnancy, and sexually transmitted infections.<br>The frequency of condom use in men and women gives an indication how well the population is informed about the advantages of condom use, as well as the accessibility and acceptability of condoms in a given society. Condom use in youth is particularly important as this group is most vulnerable to sexually transmitted diseases and unwanted pregnancies.<br>Condoms are most effective when their use is consistent, rather than occasional. Condom use at last high risk sexual intercourse (e.g. frequent change of partners) is used as an indicator to monitor progress to reach MDG 6a: to have halted by 2015 and begun to reverse the spread of HIV/AIDS. Condom use in sex workers is part of the country progress indicators collected by UNAIDS.<br>The different indicators of condom use in the adult population, in higher risk sex, sex workers or youth should be viewed and interpreted in combination, in order to gain an overall picture of the acceptance of condom use and risk protection. |
| **Definition** |
| The proportion of sex workers (respondents who reported having commercial sex in the past 12 months) who say they used a condom the last time they had sex with a client.<br><br>**Numerator:** Respondents who reported having commercial sex and who say they used a condom the last time they had sex with a client.<br>**Denominator:** Respondents who reported having commercial sex in the past 12 months |
| **Preferred data sources** |
| Behavioral surveys / Special survey<br>Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Construction based on surveillance surveys<br><br>The goal of most AIDS programs working with sex workers is an increase in the number of sex workers who always use a condom in order to prevent the spread of HIV infection. As with clients, surveys of sex workers should ask whether they use a condom always, sometimes, or never with their clients. But the pressure to say “always” is strong. Therefore, asking about a particular and recent act of sex may give a more robust and accurate measure of levels of condom use with clients. If both questions are asked, the “last client” question should precede the “always, sometimes, never” question.<br><br>The difference between the two answers can be useful for program purposes. For example, what<br>proportion of those who report having used a condom during the last sex act also report that they are not regular condom users? Do any sex workers who claim to always use condoms with their clients also report that they did not use one with their last client?<br>Since a sex worker typically sees more clients than vice versa, there is unlikely to be an exact match |

between condom use reports between sex workers and their clients. However, if both data sets show trends in the same direction, confidence in this self-reported data is likely to be strengthened.

**Method of estimation**

**M&E framework**

Outcome

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

**Disaggregation**

Age (commonly <25/25+)

Sex

Location (urban/rural)

Education level

Wealth quintile

**Expected frequency of data collection**

**Limitations**

Surveying sex workers can be challenging. Consequently, data obtained may not be based on representative samples of the national, most-at-risk population being surveyed.

The main limitation of the indicator (as all indicators assessing condom use) is that it does not assess whether condom use is consistent rather than occasionally.

**Comments**

This indicator is particularly important in concentrated HIV epidemics but even countries with generalised epidemics are asked to report on this indicator as they may have a concentrated sub-epidemic.

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## B19 : Antiretroviral therapy coverage among people with advanced HIV infection (%)

| |
|---|
| **Antiretroviral therapy coverage among people with advanced HIV infection (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Versorgung mit antiretroviraler Therapie bei fortgeschrittener HIV-Infektion in Prozent)** |
| **Indicator ID** |
| B19 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| As the HIV epidemic matures, increasing numbers of people are reaching advanced stages of HIV infection. Antiretroviral therapy (ART) has been shown to reduce mortality among those infected and efforts are being made to make it more affordable within low- and middle-income countries. This indicator assesses the progress in providing antiretroviral combination therapy to all people with advanced HIV infection. |
| **Definition** |
| The percentage of adults and children with advanced HIV infection currently receiving antiretroviral combination therapy in accordance with the nationally approved treatment protocols (or WHO/UNAIDS standards) among the estimated number of adults and children with advanced HIV infection.<br><br>**Numerator**: Number of adults and children with advanced HIV infection who are currently receiving antiretroviral combination therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) at the end of the reporting period<br>**Denominator**: Estimated number of adults and children with advanced HIV infection. |
| **Preferred data sources** |
| Facility reporting system Surveillance systems Administrative reporting system. |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Numerator: The numerator can be generated by counting the number of adults and children who received antiretroviral combination therapy at the end of the reporting period. Antiretroviral therapy taken only for the purpose of prevention of mother-to-child transmission and post-exposure prophylaxis are not included in this indicator. HIV-infected pregnant women who are eligible for antiretroviral therapy and on antiretroviral therapy for their own treatment are included in this indicator. The number of adults and children with advanced HIV infection who are currently receiving antiretroviral combination therapy can be obtained through data collected from facility-based antiretroviral therapy registers or drug supply management systems. These are then tallied and transferred to cross-sectional monthly or quarterly reports which can then be aggregated for national totals. Patients receiving antiretroviral therapy in the private sector and public sector should be included in the numerator where data are available.<br>Denominator: The denominator is generated by estimating the number of people with advanced HIV infection requiring (in need of/eligible for) antiretroviral therapy. This estimation must take into consideration a variety of factors including, but not limited to, the current numbers of people with HIV, the current number of patients on antiretroviral therapy, and the natural history of HIV from infection to enrolment on antiretroviral therapy.<br>A standard modeling method is recommended. The Estimation and Projection Package (EPP)* and Spectrum*, software have been developed by the UNAIDS/WHO Reference Group on Estimates, Models and Projections. Need or eligibility for antiretroviral therapy should follow the WHO definitions for the diagnosis of advanced HIV (including AIDS) for adults and children. (UNAIDS, 2009) |
| **Method of estimation** |

WHO, UNAIDS and UNICEF are responsible for reporting data for this indicator at the international level, and have been compiling country specific data since 2003. The data from countries are collected through three international monitoring and reporting processes. 1. Health sector response to HIV/AIDS (WHO/UNAIDS/UNICEF) 3. UNGASS Declaration of Commitment on HIV/AIDS (UNAIDS) Both processes are linked through common indicators and a harmonized timeline for reporting.

Estimating the numerator: Data for the calculation of the numerator are compiled from the most recent reports received by WHO and/or UNAIDS from health ministries or from other reliable sources in the countries, such as bilateral partners, foundations and nongovernmental organizations that are major providers of treatment services.

Estimating the denominator: The number of people who need antiretroviral therapy in a country is estimated using statistical modeling methods.

In response to the emergence of new scientific evidence, in December 2009 WHO updated its antiretroviral therapy guidelines for adults and adolescents. According to the new guidelines, which were developed in consultation with multiple technical and implementing partners, all adolescents and adults, including pregnant women, with HIV infection and a CD4 count at or below 350 cells/mm3 should be started on antiretroviral therapy, regardless of whether or not they have clinical symptoms. Those with severe or advanced clinical disease (WHO clinical stage 3 or 4) should start antiretroviral therapy irrespective of CD4 cell count. In order to compare the impact of the new guidelines, both sets of needs for the year 2009 are included, i.e. estimated needs estimated based on a threshold for initiation of antiretroviral therapy with < 200 cells/mm3 (old guidelines) as well as < 350 cells/mm3 (new guidelines). Estimating antiretroviral therapy coverage The estimates of antiretroviral therapy coverage presented here are calculated by dividing the estimated number of people receiving antiretroviral therapy as of December by the number of people estimated to need treatment in same year (based on UNAIDS/WHO methods).

Predominant type of statistics: predicted

**M&E framework**

Outcome

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

**Disaggregation**

Sex

Age

Provider type (public/private)

**Expected frequency of data collection**

Annual

**Limitations**

Estimating the number of people receiving antiretroviral therapy involves some uncertainty in countries that have not yet established regular reporting systems that can capture data on people who initiate treatment for the first time, rates of adherence among people who receive treatment, people who discontinue treatment, and those who die. To analyse and compare antiretroviral therapy coverage across countries, international agencies use standardized estimates of treatment need. Specialized software is used to generate uncertainty ranges around estimates for antiretroviral therapy need. Depending on the quality of surveillance data, the ranges for some countries can be large.

This indicator permits monitoring trends in coverage but does not attempt to distinguish between different forms of antiretroviral therapy or to measure the cost, quality or effectiveness of treatment provided. These will each vary within and between countries and are liable to change over time. The degree of utilization of antiretroviral therapy will depend on factors such as cost relative to local incomes, service delivery infrastructure and quality, availability and uptake of voluntary counseling and testing services, and perceptions of effectiveness and possible side effects of treatment. (UNAIDS, 2009) Latest country specific coverage for 2008 were not published as treatment guidelines have been revised, and the effects on treatment need for adults are currently being assessed.

**Comments**

Regional and global estimates are calculated as weighted averages of the country level indicator where the weights correspond to each country's share of the total number of people needing antiretroviral therapy. Although WHO and UNAIDS collect data on the number of people receiving antiretroviral therapy in high-income countries, as of 2007, no need numbers have been established for these countries. Aggregated coverage percentages are based solely on low- and middle-income countries.

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## B20 : Antiretroviral therapy coverage among HIV-infected pregnant woman for PMTCT (%)

| **Antiretroviral therapy coverage among HIV-infected pregnant women for PMTCT (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der HIV-positiven Schwangeren, die ART zur Verhütung einer Mutter-Kind-Übertragung (PMTCT) erhalten, in Prozent)** |
| **Indicator ID** |
| B20 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| In the absence of any preventative interventions, infants born to and breastfed by HIV-infected women have roughly a one-in-three chance of acquiring infection themselves. This can happen during pregnancy, during labour and delivery or after delivery through breastfeeding. The risk of mother-to-child transmission can be significantly reduced through the complementary approaches of antiretroviral regimens for the mother with or without prophylaxis to the infant, implementation of safe delivery practices and use of safer infant feeding practices. The purpose of this indicator is to assess progress in preventing mother-to-child transmission of HIV (PMTCT). |
| **Definition** |
| The percentage of HIV-infected pregnant women who received antiretroviral medicines to reduce the risk of mother-to-child transmission, among the estimated number of HIV-infected pregnant women.<br><br>**Numerator:** Number of HIV-infected pregnant women who received antiretroviral medicines to reduce the risk of mother-to-child transmission in the last 12 months<br>**Denominator:** Estimated number of HIV-infected pregnant women in the last 12 months |
| **Preferred data sources** |
| Facility reporting system |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Numerator: There are four general antiretroviral categories that HIV-infected women can receive for the prevention of mother-to-child transmission (PMTCT): a) Single-dose Nevirapine only b) Prophylactic regimens using a combination of two antiretroviral drugs c) Prophylactic regimens using a combination of three antiretroviral drugs d) Antiretroviral therapy for HIV-infected pregnant women eligible for treatment HIV-infected women receiving any antiretroviral therapy, including specifically for prophylaxis, meet the definition for the numerator. Countries should report the total number of HIV-infected pregnant women who were provided with any antiretrovirals as the numerator. Countries can compile data for the numerator from patient registers at antenatal clinics, delivery and care sites, and postpartum care and HIV service sites. This should be disaggregated by regimen type. Women receiving antiretroviral drugs in both the private sector and the public sector should be included in the numerator where data for both are available.<br>Denominator: The denominator is generated by estimating the number of HIV-infected women who were pregnant in the last 12 months. This is based on surveillance data from antenatal clinics. Two methods are possible for generating the estimate for the denominator: 1.<br>Estimates generated by a projection model such as Spectrum (see Epidemiological software and tools, 2009); or 2. Multiplying: (a) the total number of women who gave birth in the last 12 months, which can be obtained from the Central Statistics Office estimates of births or estimates from the UN Population Division, by (b) the most recent national estimate of HIV prevalence in pregnant women, which can be derived from HIV sentinel surveillance antenatal clinic estimates. (UNAIDS/WHO, 2010) |

| Method of estimation |
| --- |
| Estimating the numerator The number of pregnant women living with HIV receiving antiretrovirals for PMTCT is based on national programme data aggregated from facilities or other service delivery sites and as reported by the country.<br>Estimating the denominator: The number of pregnant women living with HIV who need antiretroviral medicine for PMTCT is estimated using standardized statistical modelling based on UNAIDS/WHO methods that consider various epidemic and demographic parameters and national programme coverage of antiretroviral therapy in the country (such as HIV prevalence among women of reproductive age, effect of HIV on fertility and antiretroviral therapy coverage). These statistical modelling procedures are used to derive a comprehensive population-based estimate of the number of all pregnant women living with HIV who need antiretrovirals for PMTCT in the country.<br>Estimating the coverage of antiretrovirals for PMTCT: The coverage of antiretrovirals for PMTCT is calculated by dividing the number of pregnant women living with HIV who received antiretrovirals for PMTCT of HIV by the estimated number of pregnant women living with HIV who need antiretrovirals for PMTCT in the country. Estimates of coverage are based on the standardized estimates of pregnant women living with HIV who need antiretrovirals for PMTCT derived using UNAIDS/WHO methods. Point estimates are given for countries with a generalized epidemic, these estimates are presented here. Point estimates and ranges for countries with a generalized epidemic, and ranges for countries with a concentrated epidemic are available in the report "Towards universal access - Scaling up priority HIV/AIDS interventions in the health sector". (WHO/UNAIDS/UNICEF, 2009) Predominant type of statistics: predicted |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Sex<br>Age<br>Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| This indicator permits monitoring trends in antiretroviral drug provision that addresses PMTCT. However, since countries provide different regimens of antiretroviral drugs for PMTCT, cross-country comparisons of aggregate estimates must be interpreted with caution and with reference to the regimens provided. (UNAIDS/WHO, 2010). |
| **Comments** |
| In 2006, international guidelines were updated to recommend more efficacious regimens for prevention of mother-to-child transmission, and countries may be at different phases in adopting the newer recommendations. In some countries, large numbers of pregnant women do not have access to antenatal clinic services or choose not to make use of them. Pregnant women living with HIV may be more or less likely to use antenatal clinic services (or public rather than private antenatal clinic services) than those who are not infected, particularly where antiretroviral therapy can be accessed via such services or where levels of stigma are particularly high. National estimates of HIV-infected pregnant women should be derived by adjusting surveillance data from antenatal clinic sentinel sites and other sources, taking into consideration characteristics such as rural/urban patterns of HIV prevalence that may affect the representation of surveillance sites. Methods for monitoring coverage of this service are therefore also evolving. To access the most current information available please consult: http://www.who.int/hiv/topics/mtct/guidelines/en/index.html (UNAIDS, 2009) |
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## B21 : Case detection rate for all forms of tuberculosis (%)

| |
|---|
| **Case detection rate for all forms of tuberculosis (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Fall-Erkennungsrate für alle Formen der Tuberkulose, in Prozent )** |
| **Indicator ID** |
| B21 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| It provides an indication of the effectiveness of national tuberculosis (TB) programmes in finding, diagnosing and treating people with TB. WHO does not recommend that countries set specific targets for the case detection rate for all forms of TB because the denominator (estimated number of incident TB cases during a calendar year) is not directly measureable and there is thus considerable uncertainty about its true value. For more information, see Frequently asked questions about case detection rates. |
| **Definition** |
| The proportion of estimated new and relapse tuberculosis (TB) cases detected in a given year under the internationally recommended tuberculosis control strategy. The term “case detection”, as used here, means that TB is diagnosed in a patient and is 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) and not a rate. |
| **Preferred data sources** |
| Surveillance systems |
| **Other possible data sources** |
| |
| **Method of measurement** |
| |
| **Method of estimation** |
| The number of new and relapse TB cases diagnosed and treated in national TB control programmes and notified to WHO, divided by WHO's estimate of the number of incident TB cases for the same year, expressed as a percentage. Uncertainty bounds are provided in addition to best estimates. For more information, see Annex 1 of WHO's 2010 report on global TB control. |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Estimates are also produced at global level, for WHO regions and for World Bank Income Groups. For methodology, see Annex 1 of WHO's 2010 report on global TB control. |
| **Disaggregation** |
| |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The case detection rate for all forms of TB should not be used for planning purposes. |

| Comments |
| --- |
| This indicator replaces the case detection rate for smear-positive TB which will not be published from 2010 onwards. |
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## B21a : Treatment success for new smear-positive cases (%)

| **Treatment success for new smear-positive cases (%)** |
|---|
| **(Behandlungserfolg für neue Sputum-positive Fälle in %)** |
| **Indicator ID** |
| B 21a |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| Tuberculosis is a major health problem in many low and middle income countries. This is causes by Mycobacterium tuberculosis, which most commonly affects the lung. TB is treatable with a six-month course of antibiotics but mortality even under treatment is high.<br>DOTS is a proven system based on accurate diagnosis and consistent treatment with a full course of a mixture of anti-tuberculosis drugs.<br>Proportion of TB cases detected and cured under DOTS is monitored as part of the Millennium Development goal target 6.c. |
| **Definition** |
| Proportion of tuberculosis cases detected and cured under internationally recommended TB control strategy.<br>The current strategy DOTS includes five elements: political commitment, microscopy services, drug supplies, surveillance and monitoring systems and use of highly efficacious regimes –with direct observation of treatment.<br><br>The definition of treatment outcome for patients treated for drug-susceptible TB is categorized as follows:<br>Cured: A patient who was initially smear-positive and who was smear-negative in the last month of treatment and on at least one previous occasion.<br>Completed treatment: a patient who completed treatment but did not meet the criteria for cure or failure. This definition applies for pulmonary smear-positive and smear-negative patients and to patients with extra-pulmonary disease.<br>Died: A patient who died from any cause during the treatment.<br>Failed: a patient who was initially smear-positive and who remained smear-positive at month 5 or later during treatment.<br>Defaulted: A patient whose treatment was interrupted for 2 consecutive months or more.<br>Not evaluated: A patient whose treatment outcome is not known.<br><br>In the definition of treatment success a patient who was cured or who completed treatment are included.<br><br>**Nominator:** Number of patients who were cured or who completed treatment.<br>**Denominator:** A group of people in whom TB has been diagnosed, and who were registered for treatment during a specified time period.<br>http://www.who.int/tb/publications/global_report/2011/gtbr11_full.pdf |
| **Preferred data sources** |
| Cohorts of patients in whom TB has been diagnosed |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Cohort of patients in whom TB has been diagnosed and treatment outcomes are available as above. |
| **Method of estimation** |

| |
|---|
| Data are reported to the WHO |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are made available in the annual TB control report<br>http://www.who.int/tb/publications/global_report/2011/gtbr11_full.pdf |
| **Disaggregation** |
| Sex<br>Age |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Some country cohorts only include limited numbers of patients. |
| **Comments** |
| |
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## B22 : Notified cases of tubercolosis

| **Notified cases of tuberculosis** |
|---|
| **(Berichtete Fälle an Tuberkulose Erkrankungen)** |
| **Indicator ID** |
| B 22 |
| **Indicator Group** |
| Health status |
| **Rationale** |
| Incidence, prevalence and mortality are the main indicators used to assess the burden of disease caused by TB.<br>Monitoring of TB incidence, prevalence and mortality rates associated with TB are monitored as part of the Millennium Development goal target 6.c. MDG indicator 6.9 is defined as incidence, prevalence, and deaths rates associated with TB. The Stop TB prevalence has set the target of halving the 1990 TB prevalence and mortality rates by 2015. |
| **Definition** |
| The number of tuberculosis (TB) cases detected in a given year.<br><br>Cases are reported in the following categories:<br>New TB case: pulmonary smear-positive<br>New TB case: pulmonary smear-negative<br>New TB case: pulmonary smear unknown/not done<br>New TB case: extrapulmonary<br>New TB case: other<br>Retreatment TB case: relapse (pulmonary smear and /or culture positive)<br>Retreatment TB case: treatment after failure (pulmonary smear and /or culture positive)<br>Retreatment TB case: treatment after default (pulmonary smear and /or culture positive)<br>Retreatment TB case: other<br>Other TB cases (treatment history unknown)<br><br>The total of all new tuberculosis cases and relapse cases (excluding cases of retreatment after failure/default) represent the total detected incident cases of TB in a given year. |
| **Preferred data sources** |
| National surveillance system |
| **Other possible data sources** |
| |
| **Method of measurement** |
| TB cases as defined above reported through the national TB surveillance system.<br><br>The number of cases detected by national TB programs is collected as part of routine surveillance. TB case notifications are reported by countries following the WHO recommendations of case definition. This standardized recording and reporting ensures internationally comparative data which do not need adjustments. A web-based data collection system is used. |
| **Method of estimation** |

| |
|---|
| Counts as reported by countries |
| **M&E framework** |
| Impact |
| **Method of estimation of global and regional aggregates** |
| As data collection is comparable and numbers are produced without adjustments data can be aggregated globally and over health regions. |
| **Disaggregation** |
| Type of TB |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Total numbers of reported TB cases there are a poor indicator of the burden of disease which is better captured in incidence and prevalence which provide estimates related to the population. The quality of TB notification (validity, reliability, completeness) varies between countries. |
| **Comments** |
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## B23 : Population coverage with any pre- payment system of health protection

| **Population coverage with any pre-payment system of health protection** |
|---|
| **(Abdeckungsrate der Bevölkerung mit Systemen der sozialen Absicherung im Krankheitsfall)** |
| **Indicator ID** |
| B 23 |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| Out-of-pocket payments, such as user charges (including cost-sharing), fees, expenses for drugs and services could create financial barriers that prevent millions of people each year from seeking and receiving health services. Many of those who do seek care are confronted with catastrophic costs exceeding their financial abilities and might suffer impoverishment as a consequence. Others might not use needed services. Tax-funded public health services and pre-payment systems both provide risk pooling and pre-payment (contributions are paid before health services are taken) and protect from the financial risks associated with ill health. In countries where tax-funding is insufficient to protect the population, other prepayment systems might be an important measure to increase access to health and prevent impoverishment.<br>Pre-payment systems include social health insurance, employment based insurance, other privately purchased commercial insurance and mutual health organization / community based insurance schemes.<br>The indicator should be seen as complementary to other health protection indicators such as in particular the indicators "General government expenditure on health as a percentage of total expenditure on health" and "of total government expenditure" as well as the "per capita government expenditure on health". |
| **Definition** |
| The proportion of the population covered with any type of pre-payment system.<br>(Pre-payment systems include social health insurance, employment based insurance, other privately purchased commercial insurance and mutual health organization / community based insurance schemes.)<br><br>**Nominator:** The number of people covered with any pre-payment system<br>**Denominator:** The total number of people in the population at the same point in time |
| **Preferred data sources** |
| Household surveys<br>Registers of insurance bodies |
| **Other possible data sources** |
| Special studies |
| **Method of measurement** |
| Estimation of people covered by any health insurance taker and if applicable family members |
| **Method of estimation** |
| Countries are requested to compile and present estimates in national health accounts. Household surveys such as DHS have started to include questions on coverage of household members with any health insurance in the household questionnaire. These data are also used to correct information from insurance bodies which might not always give a correct picture. |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |

| |
|---|
| Whether regional and global estimates can be presented depends whether it makes sense to sum up estimates including different pre-payment systems. |
| **Disaggregation** |
| Type of pre-payment system (social security, community based, employer based)<br>Sex<br>Income<br>Location (urban/rural) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Data might be rather available for households but not individuals covered, particularly when assessed by household surveys. Thus data derived from different sources might not always give comparable results.<br>Pre-payment schemes and content of coverage included in the measurement might differ greatly why the interpretation of combined numbers might be difficult. |
| **Comments** |
| |
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## B24 : Out-of-pocket expenditure as a percentage of private expenditure on health

| **Out-of-pocket expenditure as a percentage of private expenditure on health**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der Out-Of-Pocket-Zahlungen als Prozentsatz der Gesamtausgaben für Gesundheit (THE))** |
| **Indicator ID** |
| B24 |
| **Indicator Group** |
| Risk factors |
| **Rationale** |
| This is a core indicator of health financing systems. It contributes to understanding the relative weight of direct payments by households in total health expenditures. High out-of-pocket payments are strongly associated with catastrophic and impoverishing spending. Thus it represents a key support for equity and planning processes. |
| **Definition** |
| Level of out-of-pocket expenditure expressed as a percentage of private expenditure on health. |
| **Preferred data sources** |
| National Health Accounts<br>Administrative reporting system<br>Household surveys |
| **Other possible data sources** |
| Special studies |
| **Method of measurement** |
| National health accounts traces the financing flows from the households as the agents who decide on the use of the funds to health providers. Thus in this indicator are included only the direct payments or out-of-pocket expenditure. NHA strategy is to track records of transactions, without double counting and in order to reaching a comprehensive coverage. Thus reimbursements from insurance should be deducted. Monetary and non monetary transactions are accounted for at purchaser's value, thus in kind payments should be valued at purchasers' price. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003). |
| **Method of estimation** |
| 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 NHA framework. Missing values are estimated using various accounting techniques depending on the data available for each country.<br>The principal international references used are the EUROSTAT database, International Monetary Fund (IMF) 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, comprehensive financing studies, private expenditure by purpose reports (COICOP), institutional reports of private entities involved in health care provision or financing notably actuarial and financial reports of private health insurance agencies. Additional sources involve: household surveys, business surveys, economic censuses. Other possible data sources include ad hoc surveys. WHO sends estimates to the respective Ministries of Health every year for validation. |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classifica- |

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|---|
| tion) and for WHO Regions. |
| **Disaggregation** |
| |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Data on estimated health expenditure are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the government/private expenditure on health. Some figures lack accuracy when they do not involve a full commodity flow. Household surveys tend to be biased due to sampling and non sampling errors. |
| **Comments** |
| This indicator is the main component of the measured private expenditure on health in most countries of the world. An ongoing effort to standardize and improve the measurement procedures can be consulted in WHO NHA website. |
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## B31 : Ratio of current school attendance of orphans to non- orphans

| **Ratio of current school attendance of orphans to non-orphans** |
|---|
| **Schulbesuch von Waisen im Vergleich zu Nicht-Waisen** |
| **Indicator ID** |
| B 31 |
| **Indicator Group** |
| Risk Factor |
| **Rationale** |
| Orphanhood is frequently accompanied by prejudice and poverty, which decreases the children's chances to complete school education which in turn might increase their vulnerability to HIV. The indicator measures a countries' effort to care for its orphaned and vulnerable children.<br>As such the indicator measures progress towards preventing relative disadvantage in school attendance among orphaned children The indicator does not distinguish children who lost their parents due to AIDS from those whose parents died of other causes. |
| **Definition** |
| Percentage of children (10–14 years) who have lost both biological parents and who are currently attending school as a percentage of non-orphaned children of the same age who live with at least one parent and who are attending school.<br>The indicator is used by the United Nations General Assembly Special Session on HIV/AIDS (2001).<br><br>**Numerator:** Number of children (10–14 years) who lost both parents and who are attending school<br>**Denominator:** Number of children (10–14 years) whose parents are alive and who live with at least one parent and who are attending school |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| Facility reporting system |
| **Method of measurement** |
| Estimation of the number of orphaned children (10–14 years) attending school divided by the total number of orphaned children.<br>Estimation of the number of children (10–14 years) whose parent are alive and who live with at least one parent and are attending school. |
| **Method of estimation** |
| Data for global monitoring are reported by UNICEF and UNAIDS<br>These agencies obtain the data from national sources, both survey and registry data. Before data can be included in the global data bases, UNICEF and UNAIDS undertake a process of data verification that includes correspondents with field offices to clarify any questions.<br>http://www.childinfo.org/hiv_aids_schoolattendance.php<br>Countries are supposed to report on this indicator as part of the reporting to UNAIDS, still if HIV prevalence in a country is very low, countries might choose not to report on this indicator. |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |

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|---|
| Regional averages are calculated only for the population representing 50 per cent or more of the region's total population of interest |
| **Disaggregation** |
| Sex |
| **Expected frequency of data collection** |
| Periodic (bi-annual report to UNAIDS) |
| **Limitations** |
| Data are typically derived from household surveys which only take account of a limited number of children included to derive estimates. |
| **Comments** |
| Orphans which do not live in any household might not be captured in the surveys (e.g.street children) |
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## B32 : Percentage of people suffering impoverishment each year by out- of- pocket health payments

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|---|
| Percentage of people suffering impoverishment each year by out-of-pocket health payments (with information on which population groups are most affected) |
| **(Anteil der Personen die durch Gesundheitsausgaben aus eigener Tasche in die Armut fallen, unter Angabe welche Bevölkerungsgruppen am meisten betroffen sind)** |
| **Indicator ID** |
| B32 |
| **Indicator Group** |
| Risk Factors |
| **Rationale** |
| Out-of-pocket payments, such as user charges (cost-sharing), fees, expenses for drugs and services might constitute financial barriers that prevent millions of people each year from seeking and receiving health services. Many of those who do seek care are confronted with catastrophic costs exceeding their financial abilities and they might suffer impoverishment as a consequence. Others might not use needed services. Pre-payment systems which provide risk pooling and pre-payment (contributions are paid before health services are taken) protect from financial risks associated with ill health and is seen as an important measure to increase access to health and prevent impoverishment.<br><br>Catastrophic spending on health is defined as spending of at least 10% of total household expenditures. However, this threshold is not always sensitive to hardship caused by health expenditure. That is why a second indicator is used to assess specifically, whether health spending is pushing households into poverty (see Indicator Number B33 "Percentage of households suffering financial catastrophe each year by out-of-pocket payments on health). |
| **Definition** |
| The proportion of the population that falls under the poverty line (defined at 1US$[1] per day per household head) as a result of out-of-pocket health spending.<br>([1] the current threshold is 1.25US$ (PPP) which is regularly adjusted to inflation).<br><br>**Nominator:** Number of people pushed below the poverty line because of health expenditures<br>**Denominator**: Total people surveyed |
| **Preferred data sources** |
| Household Budget Surveys<br>Other household budget surveys such as Living Standards Measurements Study etc. |
| **Other possible data sources** |
| Special studies |
| **Method of measurement** |
| Out-of-pocket expenditures on health are all expenditure on health as direct payments. This includes typically doctor's consultation fees, purchases of medication, hospital bills and expenditures on alternative and/or traditional medicine and under-the-table payment.<br>In household surveys the head of household is asked about all expenditures during a defined period of time. In most modules expenditures are separately recorded as food and non-food expenditures, and some modules assess expenditures on health in detail. |
| **Method of estimation** |
| Estimation of percentage of population that is pushed below the poverty line as a consequence of health spending. |
| **M&E framework** |

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|---|
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Population sub-groups<br>Location (urban / rural)<br>Wealth |
| **Expected frequency of data collection** |
| Periodic |
| **Limitations** |
| Data collection limitation: Major limitations of data are the validity and reliability of responses from the head of household if long recall periods are used. Surveys assessing spending differ also in regard to the extent that spending for traditional medicine is included. Recall-biases conflict with meaningful periods. Moreover, longitudinal as opposed to cross-sectional studies would give a better estimation of the long term effect of expenses for health. Effects will also differ in relation to the socio-economic status why stratum specific estimates are important. |
| **Comments** |
| Comparability of estimates between surveys with different sequences of questions and recall periods are limited.<br>Alternative to the 1 US$ threshold, the 2 US$ poverty level might be used. |
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## B33 : Percentage of households suffering financial catastrophe each year by out-of- pocket health payments

| |
|---|
| **Percentage of households suffering financial catastrophe each year by out-of-pocket health payments (with information on which population groups are most affected)** |
| **(Anteil der Haushalte die durch Gesundheitsausgaben aus eigener Tasche den finanziellen Ruin erfahren, unter Angabe welche Bevölkerungsgruppen am meisten betroffen sind)** |
| **Indicator ID** |
| B33 |
| **Indicator Group** |
| Risk factor |
| **Rationale** |
| Out-of-pocket payments, such as user charges (cost-sharing), fees, expenses for drugs and services might constitute financial barriers that prevent millions of people each year from seeking and receiving health services. Payment for health is considered catastrophic when it exceeds a defined level of household income and so leads the household to sacrifice the consumption of other goods and services necessary for well-being. Many of those who do seek care are confronted with catastrophic costs exceeding their financial abilities and they might suffer impoverishment as a consequence. Others might be deterred from usingneeded services.<br>Well funded taxed based public health system and pre-payment systems which provide risk pooling and pre-payment (contributions are paid before health services are taken) protect from the financial risks associated with direct health services costs.<br>Catastrophic spending on health is mostly defined as spending of at least 10% of total household expenditures. But also other thresholds are used and varying thresholds for socioeconomic groups are suggested.<br>This indicator provides an estimate how well people are protected from catastrophic spending in case of illness. It therewith provides an important outcome indicator on financial protection.<br>Another indicator in this field is out-of-pocket expenditure as a percentage of private expenditure on health. |
| **Definition** |
| Households with catastrophic spending (out-of-pocket spending amounting to at least 10% of total household expenditures) during a defined time period, expressed as a percentage of all households surveyed.<br><br>**Nominator:** Households with health spending of at least 10% of total household expenditure<br>**Denominator:** Households surveyed |
| **Preferred data sources** |
| Household Budget Surveys<br>Other household budget surveys such as Living Standards Measurements Study etc. |
| **Other possible data sources** |
| Special studies |
| **Method of measurement** |
| Out-of-pocket expenditures on health are all expenditure on health as direct payments. This includes typically doctor's consultation fees, purchases of medication, hospital bills and expenditures on alternative and/or traditional medicine.<br>In household surveys the head of household is asked about all expenditures during a defined period of time. In most modules expenditures are separately recorded as food and non-food expenditures, and some modules assess expenditures on health in detail. |
| **Method of estimation** |
| Estimation of percentage of households with catastrophic spending based on information from the household surveys. |
| **M&E framework** |

| |
|---|
| Outcome |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Location (urban/rural)<br>Wealth |
| **Expected frequency of data collection** |
| Periodic |
| **Limitations** |
| Data collection limitation: Major limitations of data are the validity and reliability of responses from the head of household, particularly if long recall periods are used. Inclusion or exclusion of traditional medicine might yield different estimates. Certain medical costs such as for illegal abortion services are unlikely to be included in responses.<br>Also, the measurement does not include income loss, which is in some societies more important than spending on health.<br>The threshold of at least 10% might not be sensitive in all income groups. Moreover, some authors propose to use concentration indices because catastrophe is not linear. Also variable threshold levels are applied.<br>A major limitation of any measurement of expenses such as out-of-pocket expenses, catastrophic costs or impoverishment is that they do not include the population which forgo health services because they are unable to pay. |
| **Comments** |
| Comparability of estimates between surveys with different sequences of questions and recall periods are limited.<br>The 10% threshold is somehow arbitrary. Still it is seen as the approximate threshold at which households are forced to sacrifice other basic needs<br>Some researchers have used a threshold of 40% of non-food expenditure. The rational is that the non-food expenditure distinguishes better between the rich and the poor. |
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## C01 : Number of service delivery points offering family planning services per 10,000 women in the reproductive age group

| **Number of service delivery points offering family planning services per 10,000 women in the reproductive age group** |
|---|
| **(Anzahl der Gesundheitsdienste, die Familienplanung anbieten, pro 10,000 Frauen im reproduktiven Alter)** |
| **Indicator ID** |
| C01 |
| **Indicator Group** |
| Programme Performance |
| **Rationale** |
| Access to family planning services as part of reproductive health services is essential in meeting several of the Millennium Development Goals. Pregnancies too early, too little spaced and in older age or too many pose health risks for mothers and their children. Family planning can help to prevent unwanted pregnancies in these high risk groups. Moreover, access to condoms is a key measure in the prevention of HIV infection.<br><br>The indicator provides a measure of accessibility and availability of family planning services. It is, however, assumed that the facilities are adequately staffed and have the required commodities and supplies. |
| **Definition** |
| Access can be defined by availability (such as number of service points per 10,000 population), accessibility (within 5 km, 1 hours walk or distance measured through geographical information systems), acceptability, or affordability (free / cost),<br>However such a comprehensive assessment is rarely available. The indicator of availability of family planning services per 10,000 women in reproductive age can be seen as a proxy of accessibility.<br><br>Number of service delivery points offering family planning services per 10,000 women in the reproductive age group (15 to 49 years). |
| **Preferred data sources** |
| Facility reporting system<br>Health facility surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Estimation of availability of services based on population projection |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Provider Type (public/private) |

| Expected frequency of data collection |
| --- |
| Annual |
| **Limitations** |
| Availability of services is a rather crude measurement of accessibility, but with relative good data availability. Elements of quality of care, continuous availability of contraceptive measures or affordability, - which are all essential for uptake - are not included in this indicator which is a clear limitation. |
| **Comments** |
| |
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## C02: Couple years of protection (CYP)

| **Couple years of protection (CYP)** |
|---|
| **(Paarverhütungsjahre)** |
| **Indicator ID** |
| C02 |
| **Indicator Group** |
| Programme performance |
| **Rationale** |
| Access to family planning methods as part of reproductive health services is essential in meeting several of the Millennium Development Goals. Pregnancies which occur too early or in advanced age, are too frequent (little spaced), or are too many, pose health risks for mothers and their children. Family planning can help to prevent unwanted pregnancies in these high risk groups. Moreover, access to condoms is a key measure in prevention of HIV infection.<br>The couple years of protection measurement is used as a programme performance indicator and can be routinely calculated from programme data. The CYP reflects distribution and is a way to estimate coverage for contraceptive measures on the output level. The CYP calculation provides an immediate indication of the volume of program activity. CYP can also be calculated for each type of contraceptive, which allows programmes to compare the contraceptive coverage provided by different family planning methods. |
| **Definition** |
| Couple Year Protection (CYP) is the estimated protection provided by contraceptive methods during a one-year period, based upon the volume of all / selected type of contraceptives sold or distributed free of charge to clients during that period. |
| **Preferred data sources** |
| Facility reporting system<br>Project / programme reporting |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Calculation of contraceptive methods distributed by family planning services |
| **Method of estimation** |
| The CYP is calculated by multiplying the quantity of each method distributed to clients by a conversion factor, to yield an estimate of the duration of contraceptive protection provided per unit of that method. The CYP can be calculated for a specific method or for all methods provided. For each method the CYP is then calculated and summed for all methods to obtain a total CYP figure. CYP conversion factors are based on how a method is used, failure rates, wastage, and how many units of the method are typically needed to provide one year of contraceptive protection for a couple. The calculation takes into account that some methods, like condoms and oral contraceptives, for example, may be used incorrectly and then discarded, or that IntrauterineDevises IUDs and implants may be removed before their life span is realized.<br>Examples of CYP conversion factors are: Copper IUD: 4.6 CYP, 3 year implant (e.g. Implanon): 2.5 CYP, oral contraceptives: 15 cycles per CYP, Condoms: 120 units per CYP |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |

| |
|---|
| Contraceptive method<br>Provider Type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The usefulness of the indicator to monitor country programmes depends to which extent all possible distribution points for contraceptives are included in the monitoring. If large quantities of contraceptives are distributed through the private sector but reporting from the private sector is insufficient, data cannot be used to calculate a proxy indicator for coverage for contraceptives. |
| **Comments** |
| |
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## C03 : Ratio of availability of condoms at potential selling and delivery points

| **Ratio of availability of condoms at potential selling and delivery points** |
|---|
| **(Verhältnis der Verfügbarkeit von Kondomen an möglichen Verkaufsstellen und Verteilungsorten)** |
| **Indicator ID** |
| C03 |
| **Indicator Group** |
| Programme performance |
| **Rationale** |
| Access to condoms as part of access to reproductive health services is essential in meeting several Millennium Development Goals, particular MDG 5 and 6. Preventing HIV infections by increasing the usage of condoms is a key measure to reverse the spread of HIV. Reliable availability of condoms is important to increase usage in urban and rural areas alike.<br>This indicator reflects the success of attempts to broaden the distribution of condoms so that they are more widely available to people who need them, and at locations and times when people are likely to need them.<br>Stock outs might have very negative effects on usage and credibility of programmes. Both delivery and selling points are important to serve the population and thus needs to be monitored. Stock-outs at delivery points where condoms are available free-of-charge affect in particular vulnerable groups. |
| **Definition** |
| Availability is commonly defined as availability at day of survey. Health facility surveys or census can measure the availability at the day of survey. Additional measurements which might be used are routine stock monitoring systems where health facilities or service delivery points routinely report availability of condoms.<br><br>**Nominator**: Total number of randomly selected retail outlets and service delivery points that have condoms in stock at day of survey<br>**Denominator**: Total number of retail outlets selected |
| **Preferred data sources** |
| Health facility survey<br>Special surveys of potential selling points |
| **Other possible data sources** |
| Routine stock monitoring systems |
| **Method of measurement** |
| Estimation of condom availability at day of survey. Alternatively, supervision or regular reports on condom availability can help to establish a proxy of the above mentioned indicator.<br>A number of different types of sites are randomly selected for a retail survey. The sampling frame should be stratified to reflect sites in both urban and rural areas. Sites will be selected from a standard checklist of venues where condoms should be accessible, including bars and night clubs, different classes of retail shops (e.g., pharmacies, supermarkets, convenience stores, market stalls, gasoline stations), STI clinics, and other service provision points. |
| **Method of estimation** |
| The statistical departments or finance ministries of many countries conduct regular (usually quarterly)<br>retail surveys that include price and availability data for a wide variety of commodities. These are usually conducted to help in the compilation of the consumer price index and other economic statistics and are often contracted to private market research firms. They typically use a well-established sampling frame covering a wide variety of venues nationwide. Where such surveys exist, condoms can simply be added to the basket of commodities for which data are collected. Certain venues, such as STI clinics and family planning clinics, may not be covered by the regular retail survey. In this case, special surveys of these extra venues can be undertaken to provide the necessary extra data. |

| M&E framework |
| --- |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Provider Type (public/private)<br>Location (urban/ rural) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Availability of condoms at day of survey can severely underestimate or overestimate routine availability of condoms in situations and locations where supply is very irregular. Additional information on the functioning of the supply/distribution system including knowledge of seasonal variations in reachability of delivery points (e.g. rainy season) is thus necessary to interpret the indicator. |
| **Comments** |
| |
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## C04 : Efficiency of provision of contraceptives

| **Efficiency of provision of contraceptives** |
|---|
| **(Effizienz in der Bereitstellung von Empfängnisverhütungsmitteln)** |
| **Indicator ID** |
| C04 |
| **Indicator Group** |
| Programme performance |
| **Rationale** |
| Efficiency of provision of contraceptives is important to assure best use of scarce financial and human resources. Different ways of distribution of contraceptives including social marketing or community based distribution imply different programmatic cost for training and running of the program/project.<br>Efficiency is the extent to which the programme has converted or is expected to convert its resources/inputs (such as funds, expertise, time, etc.) economically into results in order to achieve the maximum possible outputs, outcomes, and impacts with the minimum possible inputs. Efficiency might be expressed in health as the total input (costs and other resources) for the provision of a defined outcome. For the efficiency of provision of contraceptives the outcome might be defined as unit of a service or drug or couple year protection of contraceptives.<br>Proxy indicators might be used which do not include all resources but include only financial resources. |
| **Definition** |
| Total costs per Couple year of protection (CYP)[1]<br>Total project costs (purchase, transport, storage and other management costs) per CYP<br>Other proxy indicators might also be used:<br>Sales income/ total cost (of project)<br>Sales income / operational cost<br>(where operational cost are defined as = running cost + staff cost – without procurement, marketing cost, international consultancy cost)<br><br>[1] For the definition of couple year of protection see indicator sheet on CYP |
| **Preferred data sources** |
| Programme/project accounts<br>Economic studies |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Economic studies |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |

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|---|
| Provider Type (public/private)<br>Location (urban/ rural) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The major limitation of this indicator is that it is a total count (inputs such as costs and other resources) so that a single value gives no indication on efficiency itself. Efficiency can differ for different geographical areas and in particular in relation to urban/rural setting as transport costs are likely to be much higher to reach remote rural areas.<br>If the costs of marketing and behavior change communication (BCC) are high, the indicator becomes less sensitive and values become less comparable. |
| **Comments** |
| This measurement presents a sophisticated economic analysis rather than a comparative indicator. |
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## C05 : Number of people reached directly by HIV prevention measures

| **Number of people reached directly by HIV prevention measures** |
|---|
| **(Anzahl an Menschen, die durch HIV Präventionsmaßnahmen direkt erreicht werden)** |
| **Indicator ID** |
| C 05 |
| **Indicator Group** |
| Programme performance |
| **Rationale** |
| People need to be sufficiently informed about HIV to protect themselves. Lack of appropriate and sufficient knowledge and misconceptions about infection risks and prevention measures is one reason for continuous high transmission of HIV and other sexual transmitted diseases in many countries.<br>Besides classical behaviour change communication interventions, several preventive measures such as male circumcision, antiretroviral prophylaxis after needle stick injuries in health professionals or needle exchange in for injecting drug users are important prevention measures. |
| **Definition** |
| People directly reached include the people attending individual or group counseling and information or services sessions. People who will get information/ services through people who have attended the session/service will not be included as they were only indirectly reached. Preventive measures include:<br>Information, education communication (behaviour change communication interventions)<br>Needle exchange programs<br>Antiretroviral prophylaxis after needle stick injuries in health professionals / after rape (post exposure prophylaxis)<br>Circumcision, voluntary counseling and testing (VCT) and STI services<br><br>All preventive measures or a selection might be used depending on country programmes. Reporting should be separate for each of the preventive measures to allow for meaningful aggregation. |
| **Preferred data sources** |
| Reports<br>Established routine reporting system |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The number of people reached directly can be extracted from reports of individuals, community based organization, NGOs or project reports |
| **Method of estimation** |
| Project reports |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Aggregation is only possible if information by type of preventive measures is available |
| **Disaggregation** |
| Sex |

| |
|---|
| Method of information delivery (individual counseling, group counseling, mass media) |
| **Expected frequency of data collection** |
| Annual compilation |
| **Limitations** |
| Number of people reached with information is a poor indicator for knowledge within a population. Output indicators as this one should be best interpreted together with an outcome indicator such as knowledge in the population or uptake of VCT, etc. |
| **Comments** |
| Is this an indicator to monitor the programme output. Absolute numbers should always be viewed together with health service coverage information. |
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## C05a : Most at risk population (MARP) reached directly by HIV prevention measures

| **Most at risk population (MARP) reached directly by HIV prevention measures** |
|---|
| **(Hochrisikogruppen, die durch HIV Präventionsmaßnahmen direkt erreicht werden)** |
| **Indicator ID** |
| C 05a |
| **Indicator Group** |
| Programme Performance |
| **Rationale** |
| People need to be informed about HIV to protect themselves. Lack of appropriate and sufficient knowledge about infection risks and prevention measures as well as misconceptions are among the reasons for continuous high transmission of HIV and other sexual transmitted diseases in many countries.<br>Besides classical behaviour change communication interventions, several preventive measures such as antiretroviral prophylaxis after needle stick injuries in health professionals or needle exchange in injecting drug users are important prevention measures. |
| **Definition** |
| People directly reached include the people attending individual or group counseling and information or services sessions. People who will get information / services through people who have attended the session / service will not be included as they were only indirectly reached.<br>Most-at-risk population (MARP) include sex workers, men who have sex with men (MSM), injecting drug users, and in certain epidemiological contexts youth (15-24 years)<br>Preventive measures include:<br>Information, education communication / behavior change communication<br>Needle exchange programmes<br>antiretroviral prophylaxis after needle stick injuries in health professionals / after rape (post exposure prophylaxis (PEP)<br>Circumcision<br>voluntary counseling and testing (VCT), and STI services<br><br>All preventive measures or a selection might be used depending on country programmes. Reporting should be separate for each of the preventive measures to allow for meaningful aggregation. |
| **Preferred data sources** |
| Reports |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The number of people reached directly can be extracted from reports of individuals, community based organization, NGOs or projects |
| **Method of estimation** |
| Compilation of reports<br>Estimations could in principle be adjusted for completeness of reporting |
| **M&E framework** |
| Output |

| Method of estimation of global and regional aggregates |
| --- |
| |
| **Disaggregation** |
| Sex<br>Method of information delivery (individual counseling, group counseling, mass media) |
| **Expected frequency of data collection** |
| Annual compilation |
| **Limitations** |
| Preventive measures include a broad range of approaches which poses a limitation to theuse of this indicator in an aggregate form. |
| **Comments** |
| |
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## C06 : Number of companies with a HIV workplace policy

| **Number of companies with a HIV workplace policy** |
|---|
| **(Anzahl der Betriebe mit einem HIV Arbeitsplatzprogramm)** |
| **Indicator ID** |
| C 06 |
| **Indicator Group** |
| Programme Performance |
| **Rationale** |
| HIV threatens productivity, profitability and the welfare of employees and their families. Workplace HIV policies and programmes can play a vital role in raising awareness around HIV, preventing HIV infection and caring for people living with HIV.<br>This indicator aims to measure commitment of a company's management and the level of systematic definition of a programme. |
| **Definition** |
| A work place policy should include i) risk reduction (risk management) including counselling and testing of employees and their families, condom distribution, ii) behaviour change (stigma management, advocacy against misbelieves, stigma and level of knowledge with regard to HIV and AIDS, iii) health improvement (health status management) referring to AIDS – medical aid covering of employees iv) strategies to address direct and indirect costs of HIV and AIDS and v) monitoring, evaluation and review of the programme.<br>Total number of companies with a workplace policy including the five key elements. |
| **Preferred data sources** |
| Policy and strategy papers<br>Information from Work Place Programme Monitoring Tool<br>Data from business organizations |
| **Other possible data sources** |
| |
| **Method of measurement** |
| |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Type of employer (by branch / size of employer) |
| **Expected frequency of data collection** |
| Bi-annually |
| **Limitations** |
| Total numbers always have the limitation that they give no indication on the percentage covered.<br>Thus the indicator will not tell how many and which percentage of workers are covered with the service, nor can it give |

an indication of the share of companies covered within a country.

Existence of a policy gives neither an indication of what the strategy includes nor the intensity and effectiveness of prevention and care measures.

**Comments**

There is a tendency to extend HIV Workplace programmes to broader Employee Wellbeing Programmes (EWP) and besides HIV and TB, cover other health issues and health management in general. Following objectives are to be achieved:

- To improve employee health
- To reduce non-fatal and fatal occupational injuries
- To increase employee productivity and job satisfaction
- To stabilize health care expenditures

GIZ programmes support the implementation of extended Workplace Programmes (Employee Wellbeing Programmes) in partner countries.

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## C07 : Percentage of (most-at-risk) populations who received an HIV test in the last 12 months and who know their results

| **Percentage of (most-at-risk) populations who received an HIV test in the last 12 months and who know their results** |
|---|
| **(Anteil Personen in (Hochrisikogruppen) Gesamtbevölkerung, die in den letzten 12 Monaten auf HIV getestet wurden und angeben ihr Testergebnis zu kennen)** |
| **Indicator ID** |
| C 07 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| In order to protect themselves and to prevent infecting others, it is important for individuals to get tested and to know their HIV-status. Knowledge of one's HIV status is a critical factor for decision making to seek treatment.<br>The indicator is part of the UNGASS Indicators. |
| **Definition** |
| Proportion of adults who reported having done an HIV test during the past 12 months and who know their results in relation to all adults (15-49 years) surveyed.<br><br>**Nominator:** Adults who reported having done an HIV test during the past 12 months and who know their results<br>**Denominator:** All adults (15-49 years) surveyed |
| **Preferred data sources** |
| Household surveys, behavioral surveillance and special surveys among most-at-risk population |
| **Other possible data sources** |
| |
| **Method of measurement** |
| In Demographic and Health Surveys (AIDS Indicator Surveys) and Multiple Indicator Cluster Surveys respondents are asked whether they have ever been tested for HIV the past 12 months and whether the results were received. Data are reported to UNAIDS as part of the UNGASS reporting requirements.<br>The indicator can be calculated separately for each population that is considered most-at-risk in a given country: commercial sex workers, injecting drug users, and men who have sex with men. |
| **Method of estimation** |
| Data are reported to UNAIDS as part of the bi-annual UNGASS reporting. UNAIDS and WHO verify the data and whether measurements comply with UNGASS guidelines.<br>http://data.unaids.org/pub/manual/2007/20070411_ungass_core_indicators_manual_en.pdf |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are weighted averages of the country data |
| **Disaggregation** |
| Sex<br>Age (Age-groups: 15-19, 20-24, 25-49) |

| |
|---|
| Population sub-groups (“Most –at –risk” population) |
| **Expected frequency of data collection** |
| Bi-Annual |
| **Limitations** |
| People might not always give reliable answers as they may fear stigma or discrimination if they disclose their HIV status. The introductory statement “I don’t want to know the results, but have you …” allows for better reporting and reduces underreporting in people who fear to disclosure their results. |
| **Comments** |
| In countries with concentrated/low prevalence epidemics, including countries with concentrated sub-epidemics within a generalised epidemic, HIV testing in most-at-risk population is of particular importance.<br>Accessing and/or surveying most-at-risk populations can be challenging. Consequently, data obtained may not be based on a representative sample. These concerns should be reflected in the interpretation of the survey data. Where different data exist, the best available estimate should be used. Country reporting of any data on this indicator should include information on sample size, the quality and reliability of the data, and any related issues.<br>The national policy may not be to have annual tests, for which reason no benchmark is given as to which proportion of the population should test during a 12 months period. |
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## C08 : Number of insecticide- treated bednets (ITN) distributed

| **Number of insecticide-treated bednets (ITN) distributed** |
|---|
| **(Anzahl verteilter imprägnierter Bettnetze)** |
| **Indicator ID** |
| C 08 |
| **Indicator Group** |
| Programme Performance |
| **Rationale** |
| Malaria, caused by different types of Plasmodium, is a major killer in areas where Malaria is endemic, particularly in under-five-year old children.<br>Key interventions to control malaria include use of Insecticide-treated bednets (ITN) by people at risk, prompt and effective treatment with artemisinin-based combination therapies and indoor residual spraying with insecticide to control the vector mosquitoes.<br>The Millennium Development Goal 6 is to combat HIV, malaria and other diseases and the target 8 reads "have halted and began to reverse the spread of HIV, malaria and other diseases".<br>Malaria prevention is measured by the proportion of under-five-children sleeping under an ITN.<br>WHO recommends that in malaria endemic areas, all people at risk for malaria, not only high-risk-groups such as pregnant women or small children should sleep under an ITN. ITNs commonly protect for a time span of 3 years, and thus have to be replaced regularly. Some products developed more recently are long-lasting (5-8 years). |
| **Definition** |
| Insecticide-treated bednets (ITN) are defined as mosquito-nets impregnated with insecticides.<br>Total numbers of ITNs distributed during a defined time period and a defined geographical area. |
| **Preferred data sources** |
| Programme reports |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Sum of all distributed nets |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Type of funding |
| **Expected frequency of data collection** |
| Yearly compilation |
| **Limitations** |
| Total numbers are in general a measurement which is inferior to any ratio or proportion which could put numbers available in relation to country needs. The indicator should be viewed together with coverage rates such as share of |

| |
|---|
| households owning an ITN. |
| **Comments** |
| |
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## C09 : People with access to a basic package of health, nutrition, or population services

| **People with access to a basic package of health, nutrition, or population services** |
|---|
| **(Menschen mit Zugang zu einem Basispacket an definierten Gesundheits-, Ernährungs-, Familienplanungsdienstleistungen)** |
| **Indicator ID** |
| C 09 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| Access to essential health care packages is important to improve coverage with preventive service and to enable adequate use of curative services to reduce ill-health in the population.<br>The concept of a basic package of health services has been emphasized since the Alma Ata conference and the advent of the "Primary health care" concept and was confirmed in the World Bank "World Development Report"published in 1993.<br>Traditionally, basic health, population and nutrition services were included in the basic package. Treatment for HIV patients was lately added in many highly affected countries. Packages might differ between countries according to epidemiological patterns and context. |
| **Definition** |
| Access can be defined by availability (such as number of service point per 10,000 or 500,000 population), accessibility (within 5 km, 1 hours walk), acceptability, or affordability (free / or low costs). However, using such as comprehensive definition is impractical for an indicator definition why commonly simply the availability of such services is used as a proxy for access to care. Availability might be defined as:<br>Number of health facilities offering a defined basic package of health, nutrition and population services per 10,000 populations. For an alternative definition of accessability see Method of Measurement below.<br><br>The basic (essential) services packages may differ according to country context and may include:<br>• Outpatient services for adults and sick children<br>• Treatment for sexual transmitted infections (STI) including treatment with antiretroviral drugs<br>• Family planning services<br>• Delivery service<br>• Antenatal care<br>• Postnatal care<br>• Immunization / preventive child care including growth monitoring |
| **Preferred data sources** |
| Administrative reports<br>Health facility surveys |
| **Other possible data sources** |
| Population surveys assessing distance to health facilities |
| **Method of measurement** |
| Availability of services per 10,000 people:<br><br>**Nominator:** Number of health facilities offering a defined basic package of health, nutrition and population services<br>**Denominator:** Number of people in a defined geographical area |

Alternatively, where available the population living within 5km (or 6km as often access in Household Budget Surveys) might be used. This indicator is expressed % of the population living within the defined radius:

**Nominator:** Number of people living within 5km (or 6km) to a health facility offering a defined package of basic health care in a defined geographical area

**Denominator:** All people in a defined geographical area

**Method of estimation**

The first indicator will be calculated based on health facility reports, district reports or health facility surveys assessing the total number of facilities offering a basic package while the number of people will be based on population censuses.

The alternative definition of 5 of people with access is to be based on household surveys.

**M&E framework**

Output

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

**Disaggregation**

Provider Type (public/private)

Alternative indicator:

Sex

Age

Population sub-groups

**Expected frequency of data collection**

Annual

Alternative indicator: periodic

**Limitations**

The first definition has the advantage that information of services and the content of the basic package might be more reliable. In particular service provision assessments which provide information on services routinely offered and available on a daily basis, provide a good source for this indicator. However, the indicator expressed as the number of facilities per 10,000 may obscure large differences in accessibility within a defined geographical area.

The second definition has to rely on peoples' report of what is offered in a health facility and these estimates are likely to be less reliable. Still, the proportion of the population living within 5 (or 6) km might be a better estimate of geographical accessibility particularly in areas with a low population and health facility density.

**Comments**

World Bank core sector indicator

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## C13 : Ratio of health workers recruited to health facilities compared to numbers outlined in recruitment plan (%)

| **Ratio of health workers recruited to health facilities compared to numbers outlined in recruitment plan (%)** |
|---|
| **(Übereinstimmungsgrad aktuelle Rekrutierung von Gesundheitspersonal mit Rekrutierungsplan)** |
| **Indicator ID** |
| C 13 |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| Human resources are the backbone of any health system. The lack of qualified health providers is identified as a major constraint for scaling up essential interventions. Strengthening a countries health work force according to a human resource plan towards the attainment of countries health objectives represents one of the most challenging tasks.<br>But not only overall numbers but an adequate distribution within a country, particularly of higher skilled health workers is critical. Rural and remote areas suffer from the most severe shortages of health workers.<br>Although most countries have outlined plans and strategies for strengthening the human resources in health, implementation is often lacking behind. Thus comparing plans and implementation provides an important measurement of progress. |
| **Definition** |
| Proportion of health workers recruited to health facilities compared to health workers planned to be recruited.<br><br>**Nominator:** Number of physician, nurses, and midwifes[1] recruited to health facilities[2]<br>**Denominator:** Number of physicians, nurses, midwifes recruited to health facilities planned to be recruited according to human resource plan<br><br>[1] The categorization of health workers proposed by WHO should guide categorization<br>http://apps.who.int/globalatlas/docs/HRH/HTML/Dftn.htm<br>[2] The indicator should be disaggregated for type of health facility and urban /rural setting |
| **Preferred data sources** |
| National or sub-national human resource register |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Yearly estimation of the proportion of health workers actually recruited to plan according to human resource strategy. |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| Location (rural / urban) |

| |
|---|
| Type of staff categories<br>Type of health facility (hospital, first-line) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The validity of estimations depends much on the quality of the human resource register. If registers are not updated in a timely manner or there are major differences between formal recruitment and actual reporting for working, the indicator might mislead. |
| **Comments** |
| The disaggregation into urban and rural recruitment is particular essential for interpretation. |
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## C14 : Number of health workers graduating from health professional educational institutions

| **Number of health workers graduating from health professional educational institutions** |
|---|
| (Anzahl Gesundheitspersonal mit abgeschlossener Ausbildung an einem professionellen Ausbildungsinstitut für Gesundheit) |
| **Indicator ID** |
| C 14 |
| **Indicator Group** |
| Health System Resources |
| **Rationale** |
| Human resources are the backbone of any health system. The lack of qualified health providers is identified as a major constraint for scaling up essential interventions. Strengthening a countries health work force towards the attainment of a country's health objectives represents one of the most challenging tasks.<br>The number of health workers graduating from health professional educational institutions has to be sufficient to compensate for attrition but also to enable the introduction of new health interventions. Many countries with severe shortages need to train a substantial amount of health providers to fill vacant posts. Limitations in the training capacities of professional educational institutions are described as major limitations for improving human resources for health. |
| **Definition** |
| Total number of health workers graduating from any recognized health professional educational institutions in during a given year. |
| **Preferred data sources** |
| Records from health professional educational institutions<br>Records from professional associations (where registration is compulsory) |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Total numbers of graduates |
| **Method of estimation** |
| Compilation of data on numbers of graduates available from reports and registers from professional educational institutions or records from professional associations |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Comparability depends on data sources used and comparability of health worker categories |
| **Disaggregation** |
| By type of staff categories<br>By type of professional educational institutions |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |

| |
|---|
| Total numbers are generally a weak indicator to measure progress as they do not indicate whether a country's need in terms of human resources is met. |
| **Comments** |
| |
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## C15 : Ratio of vacancies for selected staff categories in health facilities (%)

| **Ratio of vacancies for selected staff categories in health facilities (%)** |
|---|
| **(Anteil der Vakanzen für ausgewählte Personalkategorien in Gesundheitszentren (%) )** |
| **Indicator ID** |
| C 15 |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| Human resources are the back bone of any health system. The lack of qualified health providers is identified as a major constraint for scaling up essential interventions. Preparing a countries health work force towards the attainment of countries health objectives represents one of the most challenging tasks. But not only overall numbers but an adequate distribution within a country, particularly of higher skilled health worker is critical. Rural and remote areas suffer from the most severe shortages of health workers. |
| **Definition** |
| Proportion of vacancies for selected staff categories (physicians, nurses and midwifes) compared to all placement available in selected health facilities (hospitals, health centers or other first-line facilities).<br><br>**Nominator:** Vacancies for selected staff categories<br>**Denominator:** All available placements for selected staff categories<br><br>The indicator should best use a defined point in time such as the mid-year point. |
| **Preferred data sources** |
| National or regional human resource registers |
| **Other possible data sources** |
| Health facility census or surveys |
| **Method of measurement** |
| Calculation of the number of placement unoccupied in relation to total placements (for different staff categories) available in facilities (by type of facilities) in district. |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |
| **Disaggregation** |
| By type of staff categories<br>By type of health facility (hospital, first-line)<br>Location (urban / rural) |
| **Expected frequency of data collection** |
| Annual |

| Limitations |
| --- |
| The quality of the information depends on the recording system established (human resource registers). Number of health workers according to 'total placements' might differ from number of health workers according to 'staffing norms' as placements are constraint by fiscal context. |
| **Comments** |
| Rural / urban disaggregation is of great importance for interpretation of this indicator. |
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## C15a : Proportion of health facilities which are staffed with personnel according to staffing norms (%)

| **Proportion of health facilities which are staffed with personnel according to staffing norms (%)** |
|---|
| **(Anteil der Gesundheitszentren mit der Norm entsprechenden Personalausstattung in %)** |
| **Indicator ID** |
| C 15a |
| **Indicator Group** |
| Health System Resources |
| **Rationale** |
| Human resources are the backbone of any health system. The lack of qualified health providers is identified as a major constraint for scaling up essential interventions. Strengthening a countries health work force according to a human resource plan towards the attainment of countries health objectives represents one of the most challenging tasks. But not only overall numbers but an adequate distribution within a country, particularly of higher skilled health workers is critical. Rural and remote areas suffer from the most severe shortages of health workers.<br>This indicator aims in particular to assess availability of health workers in rural areas where shortages are commonly greatest. |
| **Definition** |
| Health facilities (first-line health facilities, health centers, hospitals/departments in hospitals) which have health workers employed (and working at day of assessment) according to staffing norms in terms of total numbers and qualifications.<br><br>**Nominator:** Actual availability of health workers (physicians, nurses and midwifes) at day of visit<br>(in terms of numbers and categories)<br>**Denominator:** Number of health workers which should be available at the health facility (first-line health facilities, health centers, hospitals/departments in hospitals) according to staffing norms. |
| **Preferred data sources** |
| Health facility survey |
| **Other possible data sources** |
| National or regional human resource registers |
| **Method of measurement** |
| Calculation of the number of facilities (by type of facilities) which have personnel (by physician, nurses and midwifes) available according to staffing norms.<br>Health facility surveys are the preferred method because they can assess the availability at health workers at the day of survey, which might be important if personnel is regularly absent from their station - for training, workshops, competing activities such as vaccination days, outreach activities – or if staff morale is low resulting in absence for sickness or other reasons. |
| **Method of estimation** |
| |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |

| **Disaggregation** |
| --- |
| Type of health facility<br>Location (rural / urban)<br>Health personnel |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| If national or regional human resource registers are used then the quality and usefulness of the information depends on the recording system established and how well the staffing norms are developed in relation to needs and resources available. |
| **Comments** |
| Rural/urban disaggregation is of great importance for the interpretation. |
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## C30 : Proportion of HIV- positive clients of HIV services who receive family planning services (%)

| **Proportion of HIV-positive clients of HIV services who receive family planning services (%)** |
|---|
| **(Anteil HIV-positiver Patienten, die bei der Nutzung von HIV-Diensten auch Beratung zur Familienplanung erhalten)** |
| **Indicator ID** |
| C 30 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| HIV and reproductive health services target a similar sub-population group in need of preventive and curative services. Linkages between services may increase uptake of preventive and curative measures in both areas, hence improving coverage. Moreover, HIV-positive clients might be particularly in need of family planning services as pregnancy should be avoided while taking certain drug combinations.<br>Linkages between reproductive health and HIV services are proposed to lead to increased uptake and improved quality of care including user satisfaction. |
| **Definition** |
| Proportion of HIV-positive clients who are seen for HIV-services and that receive at the same visit (same provider or other provider but well linked services) family planning services (counseling and/or provision with contraceptives ).<br><br>**Numerator:** The number of HIV-positive clients (during a defined time period) receiving family planning services (counseling alone or counseling and provision of method).<br>**Denominator:** The total number of HIV-positive clients seen in health services (during the same defined time period) |
| **Preferred data sources** |
| Facility reporting system<br>Health facility survey |
| **Other possible data sources** |
| Exit interviews with clients |
| **Method of measurement** |
| Service / facility records can be used if recoding during each visit includes the HIV status and recording of provision of other services such as family planning. If individual patient numbers give the possibility to link clients from HIV service registers and family planning registers this might provide another method of estimation.<br>Exit interview with clients relating to services received during the same time visiting the HIV service might provide another possible data source, but disclosure of HIV status is likely to be either not possible or to be biased by non-respondents. Thus exit interviews are not likely to give reliable results compared to facility reporting systems. |
| **Method of estimation** |
| Continuous reporting in countries where documentation of family planning services is included<br>Health facility survey |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| |

| Disaggregation |
| --- |
| Age |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The quality of the information depends on the recording system established for HIV services. Thus data from different countries might not be directly comparable. |
| **Comments** |
| The indicator is a measurement of the extent to which different reproductive health services are linked to each other. In countries where integration and linkages are part of the policy in reproductive health and HIV services, registers are more likely to include the necessary information to construct the indicator.<br>More experience will be gained if the indicator is used more widely and experience might be fed back and contribute to a revision of this indicator sheet. |
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## C31 : Proportion of sexual and reproductive health service clients who are offered HIV counseling and testing (%)

| **Proportion of sexual and reproductive health service clients who are offered HIV counseling and testing (%)** |
|---|
| **(Anteil der Patienten, die bei der Nutzung von Diensten der sexuellen und reproduktiven Gesundheit auch Beratung und Testung zu HIV angeboten bekommen)** |
| **Indicator ID** |
| C 31 |
| **Indicator Group** |
| Health Service Coverage |
| **Rationale** |
| Sexual and reproductive health and HIV services target a similar sub-population group. Many women and men who use sexual and reproductive health services are at risk of HIV-infection. Thus sexual and reproductive health services present a window of opportunities to reach people with HIV counseling and testing. And knowing one's status is essential to encourage utilization of protection measures and to initiate antiretroviral therapy if needed.<br>Linkages between sexual and reproductive health services and HIV services are seen as important to increase uptake and quality of care and improve overall coverage. |
| **Definition** |
| Proportion of reproductive health service clients (family planning, post-abortion services, STI services, antenatal care, screening for cervical cancer) who are offered counseling and testing for HIV or are referred to such services.<br><br>**Numerator**: The number of sexual and reproductive health service clients (15-49 years) during a defined time period receiving counseling and testing for HIV..<br>**Denominator**: The total number of sexual and reproductive health service clients during the same defined time period |
| **Preferred data sources** |
| Facility reporting system<br>Health facility survey |
| **Other possible data sources** |
| Exit interviews with clients |
| **Method of measurement** |
| Service / facility records can be used if recoding during each visit includes the information (or ticked box) whether VCT services were offered. Where this is not the case but clients have individual client numbers or can be individually identified using name and address, linkages between health records/registers can be used to get the needed numbers to construct the indicator.<br>Exit interview with clients of any reproductive health service is another option. |
| **Method of estimation** |
| Continuous reporting in countries where documentation of VCT is included in records<br>Health facility survey/record review (if linkages between records using individual client identifiers is possible)<br>Exit interviews with clients |
| **M&E framework** |
| Outcome |
| **Method of estimation of global and regional aggregates** |

| |
|---|
| **Disaggregation** |
| Age |
| **Expected frequency of data collection** |
| Annually |
| **Limitations** |
| The quality of the information depends on the recording system established for reproductive health services. Thus data from different countries might not be directly comparable.<br>An alternative data collection method might be the use of sentinel sites (sentinel services or sentinel health facilities). |
| **Comments** |
| The indicator is a measurement of the extent to which different sexual and reproductive health services are linked to each other. In countries where integration and linkages are part of the policy in reproductive health and HIV services, registers are more likely to include the necessary information to construct the indicator.<br>More experience will be gained if the indicator is used more widely and the experience might be fed back in a revision of this indicator sheet. |
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## C32 : Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/ AIDS (%)

| **Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der Jugendlichen (15-24 Jahre) mit umfassendem und richtigem Wissen zu HIV/AIDS in Prozent)** |
| **Indicator ID** |
| C 32 |
| **Indicator Group** |
| Health service coverage |
| **Rationale** |
| HIV epidemics are perpetuated through primarily sexual transmission of infection to successive generations of young people. Sound knowledge about HIV and AIDS is an essential pre-requisite — albeit, often an insufficient condition — for adoption of behaviours that reduce the risk of HIV transmission. The purpose of this indicator is to assess progress towards universal knowledge of the essential facts about HIV transmission. |
| **Definition** |
| Percentage of young people aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission. |
| **Preferred data sources** |
| Household surveys |
| **Other possible data sources** |
| |
| **Method of measurement** |
| Data are collected through household surveys, such as Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS), reproductive and health surveys, and behavioural surveillance surveys. Respondents are asked to answer to the following five questions:<br>1. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?<br>2. Can a person reduce the risk of getting HIV by using a condom every time they have sex?<br>3. Can a healthy-looking person have HIV?<br>4. Can a person get HIV from mosquito bites?<br>5. Can a person get HIV by sharing food with someone who is infected?<br>The indicator is calculated by dividing the Number of respondents aged 15–24 years who gave the correct answers to all of the five questions, by the number of all respondents aged 15–24. (2008 Report on the Global AIDS epidemics, Annex 2 |
| **Method of estimation** |
| Estimates derived from household surveys (DHS, MICS) are presented here, as compiled and reported by UNAIDS in the 2008 Report on the Global AIDS epidemics, Annex 2 (UNAIDS, 2008).<br>Predominant type of statistics: adjusted |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional estimates are weighted averages of the country data, using the number of population aged 15-24 for the reference year in each country as the weight. No figures are reported if less than 50 per cent of the population aged 15-24 |

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| in the region are covered. |
| **Disaggregation** |
| Age<br>Sex |
| **Expected frequency of data collection** |
| Biennial (every two years) |
| **Limitations** |
| |
| **Comments** |
| The belief that a healthy-looking person cannot be infected with HIV is a common misconception that can result in unprotected sexual intercourse with infected partners. Correct knowledge about false beliefs of possible modes of HIV transmission is as important as correct knowledge of true modes of transmission. For example, the belief that HIV is transmitted through mosquito bites can weaken motivation to adopt safer sexual behaviour, while the belief that HIV can be transmitted through sharing food reinforces the stigma faced by people living with AIDS. This indicator is particularly useful in countries where knowledge about HIV and AIDS is poor because it allows for easy measurement of incremental improvements over time. However, it is also important in other countries because it can be used to ensure that pre-existing high levels of knowledge are maintained. |
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## E05: Per capita total expenditure on health

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| **Per capita total expenditure on health**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Gesamte Gesundheitsausgaben pro Kopf)** |
| **Indicator ID** |
| E05 |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| This is a core indicator of health financing systems. This indicator contributes to understand the total expenditure on health relative to the beneficiary population, expressed in Purchasing Power Parities (PPP) to facilitate international comparisons. |
| **Definition** |
| Per capita total expenditure on health (THE) expressed in PPP international dollar. |
| **Preferred data sources** |
| National Health Accounts |
| **Other possible data sources** |
| |
| **Method of measurement** |
| National health accounts (NHA) indicators are based on expenditure information collected within an internationally recognized framework. NHA synthesize the financing flows of a health system, recorded from the origin of the resources (sources), and the purchasing agents (financing schemes), which distribute their funds between providers, to pay for selected health goods and services to benefit individuals. Beneficiaries are analysed across geographical, demographic, socioeconomic and epidemiological dimensions. Total expenditure on health (THE) is measured as the sum of spending of all financing agents managing funds to purchase health goods and services. The NHA strategy is to track records of transactions, without double counting and in order to reaching a comprehensive coverage. Monetary and non monetary transactions are accounted for at purchasers' values. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003). |
| **Method of estimation** |
| 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. Preferred data sources: THE: WHO NHA database. PPP exchange rates: WB, WHO estimates for countries which WB does not provide PPPs. Population figures are taken from UN Population Division, OECD HD, EUROSTAT database. WHO sends estimates to the respective Ministries of Health every year for validation. |
| **M&E framework** |
| Input |
| **Method of estimation of global and regional aggregates** |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classification) and for WHO Regions |
| **Disaggregation** |
| |

| Expected frequency of data collection |
| --- |
| Annual |
| **Limitations** |
| Data on estimated health expenditure are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the government/private expenditure on health. Some figures may be underestimated when it is not possible to obtain data on expenditure for local government, corporations, nongovernmental organizations or insurance. A time lag affects the registration of population migrations voluntary and forced ones. |
| **Comments** |
| Data are intended to approximate current values. |
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## E05a: Total health expenditure as percentage of gross domestic product

| **Total health expenditure as percentage of gross domestic product**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Gesamtausgaben Gesundheit als Prozentsatz des BIP)** |
| **Indicator ID** |
| E05a |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| This is a core indicator of health financing systems. It provides information on the level of resources channeled to health relative to a country's wealth. |
| **Definition** |
| Level of total expenditure on health (THE) expressed as a percentage of gross domestic product (GDP). |
| **Preferred data sources** |
| National Health Accounts |
| **Other possible data sources** |
| Special studies |
| **Method of measurement** |
| National health accounts (NHA) indicators are based on expenditure information collected within an internationally recognized framework. NHA synthesize the financing flows of a health system, recorded from the origin of the resources (sources), to the purchasing agents (financing schemes), which distribute their funds between providers, to pay for selected health goods and services to benefit individuals. Beneficiaries are analysed across geographical, demographic, socioeconomic and epidemiological dimensions. Total expenditure on health (THE) is measured as the sum of all financing agents managing funds to purchase health goods and services. The NHA strategy is to track records of transactions, without double counting in order to reach a comprehensive coverage. Monetary and non monetary transactions are accounted for at purchasers' values. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003). |
| **Method of estimation** |
| These data are generated from sources consulted by WHO 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. In these instances, data are obtained through technical contacts incountry or from publicly-available documents and reports and harmonized to the NHA framework. Missing values are estimated using 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 reports, national accounts reports, health system's financing reports. Other possible data sources include ad hoc surveys, general government (GG) accounts, Public Expenditure Reviews (PER), expenditure by purpose reports (COFOG, COICOP), household surveys, business surveys, actuarial and financial reports of health insurance institutions, economic censuses. Additional sources are: reports by central banks and nongovernmental organizations; data provided by central statistical offices and ministries on official web sites; statistical yearbooks; executed budget reports; other government reports; and academic studies. WHO sends estimates to the respective Ministries of Health every year for validation. |
| **M&E framework** |
| Input |
| **Method of estimation of global and regional aggregates** |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classifica- |

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| tion) and for WHO Regions. |
| **Disaggregation** |
| Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Data on estimated health expenditures are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the governmental and private expenditure on health. Some figures may be underestimated when it is not possible to obtain data on expenditure for local governments, parastatals, corporations, or nongovernmental organizations. Some governments do not track external (donor) funds passing through the private sector, so those flows might also be underestimated. The most relevant attribute of this indicator is being comprehensive in its content. |
| **Comments** |
| |
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## E06: Per capita government expenditure on health

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| **Per capita government expenditure on health**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Gesundheitsausgaben der Regierung pro Kopf)** |
| **Indicator ID** |
| E06 |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| This is a core indicator of health financing systems. This indicator contributes to understand the relative level of public spending on health to the beneficiary population, expressed in US$ to facilitate international comparisons. 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** |
| Per capita general government expenditure on health (GGHE) expressed in PPP international dollar. |
| **Preferred data sources** |
| National Health Accounts Administrative Reporting System |
| **Other possible data sources** |
| |
| **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, without double counting and in order to reaching a comprehensive coverage. Specially, it aims to be consolidated not to double count government transfers to social security and extrabudgetary funds. 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). |
| **Method of estimation** |
| 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 principle international references used are GGHE: WHO NHA database. PPP: WB, WHO estimates for countries which WB does not provide PPPs. Population figures are taken from UN pop, OECD HD, EUROSTAT database. WHO sends estimates to the respective Ministries of Health every year for validation. |
| **M&E framework** |
| Input |
| **Method of estimation of global and regional aggregates** |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classification) and for WHO Regions |
| **Disaggregation** |
| |

| Expected frequency of data collection |
| --- |
| Annual |
| **Limitations** |
| Data on estimated health expenditure are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the government/private expenditure on health. Some figures may be underestimated when it is not possible to obtain data on expenditure for local government, corporations, nongovernmental organizations or insurance. A time lag affects the registration of population migrations voluntary and forced ones. |
| **Comments** |
| Data are intended to approximate current values. |
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## E06a: General government expenditure on health as a percentage of total expenditure on health

| **General government expenditure on health as a percentage of total expenditure on health**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Ausgaben der Regierung für Gesundheit als Prozentsatz der Gesamtausgaben für Gesundheit)** |
| **Indicator ID** |
| E06a |
| **Indicator Group** |
| Health system 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 expenditure on health (THE).<br>Expenditure on health: The sum of outlays for health maintenance, restoration or enhancement paid for in cash or supplied in kind.<br>General government expenditure on health (GGHE): The sum of health outlays paid for in cash or supplied in kind by government entities, such as the Ministry of Health, other ministries, parastatal organizations or other social security agencies (without double counting government transfers to social security and extrabudgetary funds). It includes all expenditure made by these entities, regardless of the source, so includes any donor funding passing through them. It includes transfer payments to households to offset medical care costs and extrabudgetary funds to finance health services and goods. It includes current and capital expenditure.<br>Total expenditure on health (THE): The sum of all outlays for health maintenance, restoration or enhancement paid for in cash or supplied in kind. It is the sum of General Government Expenditure on Health and Private Expenditure on Health. |
| **Preferred data sources** |
| National Health Accounts |
| **Other possible data sources** |
| Administrative reporting system Special studies |
| **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 purchaser's value. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003). |
| **Method of estimation** |
| 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 compul- |

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| sory 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. |
| **M&E framework** |
| Input |
| **Method of estimation of global and regional aggregates** |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classification) and for WHO Regions |
| **Disaggregation** |
| |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Data on estimated health expenditure are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the government/private expenditure on health. Some figures may be underestimated when it is not possible to obtain data on expenditure for local government, extrabudgetary agencies or expenditure related to specific financing sources which are reported separately, such as external fund. |
| **Comments** |
| This indicator includes all compulsory pooled resources for health. |
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## E06b : General government expenditure on health as a percentage of total government expenditure

| **General government expenditure on health as a percentage of total government expenditure**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Ausgaben der Regierung für Gesundheit als Prozentsatz der Gesamtausgaben der Regierung)** |
| **Indicator ID** |
| E06b |
| **Indicator Group** |
| Health system 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. |
| **Preferred data sources** |
| National Health Accounts |
| **Other possible data sources** |
| Administrative reporting system Special studies |
| **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 purchaser's value. Guides to producing national health accounts exist. (OECD, 2000; WHO-World Bank-USAID, 2003). |
| **Method of estimation** |
| 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. |
| **M&E framework** |
| Input |

| Method of estimation of global and regional aggregates |
| --- |
| Averages are weighted by population to obtain global and regional averages for income groups (World Bank classification) and for WHO Regions |
| **Disaggregation** |
| |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| Data on estimated health expenditure are collected by triangulating information from several sources to ensure that the outlays constitute the bulk of the government/private expenditure on health. Some figures may be underestimated when it is not possible to obtain data on expenditure for local government, extrabudgetary agencies or expenditure related to specific financing sources which are reported separately, such as external fund. 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. |
| **Comments** |
| |
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## E07 : Density of physicians (per 10 000 population)

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| **Density of physicians (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anzahl der Ärzte/innen pro 10 000 Einwohner/innen)** |
| **Indicator ID** |
| E07 |
| **Indicator Group** |
| Health system resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Methodologically, there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population. It has been estimated however, in the World Health Report 2006, that countries with fewer than 23 physicians, nurses and midwives per 10 000 population generally fail to achieve adequate coverage rates for selected primary health care interventions as prioritized by the Millennium Development Goals framework. |
| **Definition** |
| Number of medical doctors (physicians), including generalist and specialist medical practitioners, per 10 000 population. |
| **Preferred data sources** |
| Administrative reporting system<br>Household surveys<br>Population census |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The method of estimation for density of physicians depends on the nature of the original data source. Estimating the number of physicians using population census data is a count of the number of people reporting 'physician' as their current occupation (as classified according to the tasks and duties of their job). A similar method is used for counting physicians from labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for physicians density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |

Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They are presented only if available data cover at least 50% of total population in the regional or global groupings.

**Disaggregation**

Age

Sex

Location (urban/rural)

Occupational specialization

Main work activity

Provider type (public/private)

**Expected frequency of data collection**

Annual

**Limitations**

The classification of health workers used here is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. The WHO framework draws on the latest revisions to the internationally standardized classification systems of the International Labour Organization (International Standard Classification of Occupations), the United Nations Educational, Scientific and Cultural Organization (International Standard Classification of Education) and the United Nations Statistics Division (International Standard Industrial Classification of All Economic Activities).

While much effort has been made to harmonize the data to enhance cross-national comparability, the diversity of sources means that considerable variability remains across countries in the coverage, quality and reference year of the original data. In particular, for some countries the available information from official sources does not make it clear whether both the public and private sectors are included. Data derived from population censuses, and on physicians and nursing and midwifery personnel, are generally the most complete and comparable information on human resources in health systems; data on health management and support workers tend to be the least complete.

Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, health service providers working outside the health care sector (e.g. nurses working in a school or large private company), workers who are unpaid or unregulated but performing health care tasks (e.g. volunteer community health workers) or people with health vocational training who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons).

**Comments**

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## E07a : Density of nursing and midwifery personnel (per 10 000 population)

| **Density of nursing and midwifery personnel (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anzahl der Hebammen pro 1000 Einwohner/innen)** |
| **Indicator ID** |
| E07a |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Methodologically, there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population. It has been estimated however, in the World Health Report 2006, that countries with fewer than 23 physicians, nurses and midwives per 10 000 population generally fail to achieve adequate coverage rates for selected primary health care interventions as prioritized by the Millennium Development Goals framework. |
| **Definition** |
| Number of nursing and midwifery personnel per 10 000 population. |
| **Preferred data sources** |
| Administrative reporting system<br>Household surveys<br>Population census |
| **Other possible data sources** |
| |
| **Method of measurement** |
| The method of estimation for number of nursing and midwifery personnel (including professional nurses, professional midwives, auxiliary nurses, auxiliary midwives, enrolled nurses, enrolled midwives and related occupations such as dental nurses and primary care nurses) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting their current occupation in nursing or midwifery (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They |

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| are presented only if available data cover at least 50% of total population in the regional or global groupings. |
| **Disaggregation** |
| Age<br>Sex<br>Location (urban/rural)<br>Occupational specialization<br>Main work activity<br>Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The classification of health workers is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. While much effort has been made to harmonize the data to enhance comparability, the diversity of sources means that considerable variability remains across countries and over time in the coverage and quality of the original data. Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, workers who are unpaid or unregulated but performing health care tasks, or people with training in nursing and midwifery working outside the health care sector (e.g. at a research or teaching institution) or who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons). |
| **Comments** |
| |
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## E07b : Density of community health workers (per 10 000 population)

| **Density of community health workers (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anzahl pro 10 000 Einwohner/innen)** |
| **Indicator ID** |
| E07b |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services. |
| **Definition** |
| Total number of community health workers in the country. |
| **Preferred data sources** |
| Administrative reporting system<br>Household surveys<br>Population census |
| **Other possible data sources** |
| Health facility assessments |
| **Method of measurement** |
| The method of estimation for number of community health workers (including community health officers, community health-education workers, community health aides, family health workers and associated occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting 'community health worker' as their current occupation (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, staffing records, payroll records, training records, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They are presented only if available data cover at least 50% of total population in the regional or global groupings. |

| Disaggregation |
| --- |
| Age<br>Sex<br>Location (urban/rural)<br>Occupational specialization<br>Main work activity<br>Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The classification of health workers is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. The roles and activities of community health workers are enormously diverse throughout their history, within and across countries and across programmes.<br><br>While much effort has been made to harmonize the data to enhance comparability, the diversity of sources means that considerable variability remains across countries and over time in the coverage and quality of the original data. Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, workers who are unpaid or unregulated but performing health care tasks, or people with training in services provision working outside the health care sector (e.g. at a research or teaching institution) or who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons). |
| **Comments** |
| |
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## E07c : Density of dentistry personnel (per 10 000 population)

| **Density of dentistry personnel (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anzahl der Zahnärzten pro 10 000 Einwohner/innen)** |
| **Indicator ID** |
| E07c |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services. |
| **Definition** |
| Number of dentistry personnel per 10 000 population. |
| **Preferred data sources** |
| Administrative reporting system<br>Household surveys<br>Population census |
| **Other possible data sources** |
| Health facility assessments |
| **Method of measurement** |
| The method of estimation for number of dentistry personnel (including dentists, dental assistants, dental therapists and related occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting ´community health worker` as their current occupation (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Input |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They are presented only if available data cover at least 50% of total population in the regional or global groupings. |

| **Disaggregation** |
| --- |
| Age<br>Sex<br>Location (urban/rural)<br>Occupational specialization<br>Main work activity<br>Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The classification of health workers is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. The roles and activities of community health workers are enormously diverse throughout their history, within and across countries and across programmes.<br>While much effort has been made to harmonize the data to enhance comparability, the diversity of sources means that considerable variability remains across countries and over time in the coverage and quality of the original data. Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, workers who are unpaid or unregulated but performing health care tasks, or people with training in services provision working outside the health care sector (e.g. at a research or teaching institution) or who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons). |
| **Comments** |
| |
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## E07d : Density of environment and public health workers (per 10 000 population)

| **Density of environment and public health workers (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anzahl pro 10 000 Einwohner/innen)** |
| **Indicator ID** |
| E07d |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services. |
| **Definition** |
| Number of environment and public health workers per 10 000 population. |
| **Preferred data sources** |
| Administrative reporting system<br>Population census<br>Household surveys |
| **Other possible data sources** |
| Health facility assessments |
| **Method of measurement** |
| The method of estimation for number of environment and public health workers (including environmental and public health officers, environmental and public health technicians, sanitarians, hygienists and related occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting ´community health worker` as their current occupation (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. |

They are presented only if available data cover at least 50% of total population in the regional or global groupings.

**Disaggregation**

Age

Location (urban/rural)

Occupational specialization

Main work activity

Provider type (public/private)

**Expected frequency of data collection**

Annual

**Limitations**

The classification of health workers is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. The roles and activities of community health workers are enormously diverse throughout their history, within and across countries and across programmes.

While much effort has been made to harmonize the data to enhance comparability, the diversity of sources means that considerable variability remains across countries and over time in the coverage and quality of the original data. Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, workers who are unpaid or unregulated but performing health care tasks, or people with training in services provision working outside the health care sector (e.g. at a research or teaching institution) or who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons).

**Comments**

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## E07e : Density of pharmaceutical personnel (per 10 000 population)

| **Density of pharmaceutical personnel (per 10 000 population)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anzahl an pharmazeutischem Personal/ Apothekern pro 10 000 Einwohner/innen)** |
| **Indicator ID** |
| E07e |
| **Indicator Group** |
| Health systems resources |
| **Rationale** |
| Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services. |
| **Definition** |
| Number of pharmaceutical personnel per 10 000 population. |
| **Preferred data sources** |
| Administrative reporting system<br>Population census<br>Household surveys |
| **Other possible data sources** |
| Health facility assessments |
| **Method of measurement** |
| The method of estimation for number of pharmaceutical personnel (including pharmacists, pharmaceutical assistants, pharmaceutical technicians and related occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting their current occupation in the pharmaceutical field (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source. |
| **Method of estimation** |
| WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices.<br>In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database. |
| **M&E framework** |
| Output |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They are presented only if available data cover at least 50% of total population in the regional or global groupings. |

| Disaggregation |
| --- |
| Age<br>Location (urban/rural)<br>Occupational specialization<br>Main work activity<br>Provider type (public/private) |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| The classification of health workers is based on criteria for vocational education and training, regulation of health professions, and the activities and tasks involved in carrying out a job, i.e. a framework for categorizing key workforce variables according to shared characteristics. The roles and activities of community health workers are enormously diverse throughout their history, within and across countries and across programmes.<br>While much effort has been made to harmonize the data to enhance comparability, the diversity of sources means that considerable variability remains across countries and over time in the coverage and quality of the original data. Some figures may be underestimated or overestimated when it is not possible to distinguish whether the data include health workers in the private sector, double counts of health workers holding two or more jobs at different locations, workers who are unpaid or unregulated but performing health care tasks, or people with training in services provision working outside the health care sector (e.g. at a research or teaching institution) or who are not currently engaged in the national health labour market (e.g. unemployed, migrated, retired or withdrawn from the labour force for personal reasons). |
| **Comments** |
| |
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## F01 : Adult literacy rate (%)

| **Adult literacy rate (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Alphabetisierungsgrad unter Erwachsenen)** |
| **Indicator ID** |
| F01 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| The percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life.<br>Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. |
| **Definition** |
| **Preferred data sources** |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| UNESCO compiles data on adult literacy rate, mainly from national population census, household and/or labour force surveys. |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
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## F02 : Annual population growth rate (%)

| **Annual population growth rate (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Jährliche Bevölkerungswachstumsrate (%))** |
| **Indicator ID** |
| F02 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| Average exponential rate of annual growth of the population over a given period. |
| **Preferred data sources** |
| Civil registration<br>Population census |
| **Other possible data sources** |
| **Method of measurement** |
| It is calculated as ln(Pt/Po) where t is the length of the period. |
| **Method of estimation** |
| Population data are taken from the most recent UN Population Division's "World Population Prospects". |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
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## F03 : Gross national income per capita (PPP int. $)

| **Gross national income per capita (PPP int. $)**<br>Source: Indicator compendium, World Health Statistics, WHO, 2011. |
|---|
| **(Bruttonationaleinkommen pro Kopf (PPP int. $))** |
| **Indicator ID** |
| F03 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| GNI per capita based on purchasing power parity (PPP). PPP GNI is gross national income (GNI) converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GNI as a U.S. dollar has in the United States. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. |
| **Preferred data sources** |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| Estimates are taken from the World Bank's World Development Indicator. |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| Regional and global aggregates are based on population-weighted averages weighted by the total number of population. They are presented only if available data cover at least 50% of total population in the regional or global groupings. |
| **Disaggregation** |
| **Expected frequency of data collection** |
| Annual |
| **Limitations** |
| |
| **Comments** |
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## F04 : Net primary school enrolment rate (%)

| **Net primary school enrolment rate (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|

| (Einschulungsrate für die Grundschule (%)) |
| --- |
| **Indicator ID** |
| F04 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| Enrolment of the official age group for primary level education expressed as a percentage of the corresponding population. |
| **Preferred data sources** |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| UNESCO compiles data on net primary school enrolment ratio. |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| Sex |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
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## F05 : Population living in urban areas (%)

| **Population living in urban areas (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der Bevölkerung, die in Städten lebt (%))** |
| **Indicator ID** |
| F05 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| The percentage of de facto population living in areas classified as urban according to the criteria used by each area or country as of 1 July of the year indicated. |
| **Preferred data sources** |
| Civil registration<br>Population census |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| Population data are taken from the most recent UN Population Division's "World Population Prospects". |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
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## F06 : Population living on < $1 (PPP int. $) a day (%)

| |
|---|
| **Population living on <$1 (PPP int. $) a day (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| **(Anteil der Bevölkerung mit weniger als 1 US-Dollar (PPP int. $) pro Tag (%))** |
| **Indicator ID** |
| F06 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| The $1.25 a day poverty line – the critical threshold value below which an individual or household is determined to be poor -- corresponds to the value of the poverty lines in the poorest countries (the poorest countries are determined by international rank of GNI per capita in PPP terms). This threshold is a measure of extreme poverty that allows for comparisons across countries when converted using PPP exchange rates for consumption. In addition, poverty measures based on an international poverty line attempt to hold the real value of the poverty line constant over time allowing for accurate assessments of progress toward meeting the goal of eradicating extreme poverty and hunger. |
| **Definition** |
| The poverty rate at $1.25 a day is the proportion of the population living on less than $1.25 a day, measured at 2005 international prices, adjusted for purchasing power parity (PPP).<br>Purchasing power parities (PPP) conversion factor, private consumption, is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States. This conversion factor is applicable to private consumption. |
| **Preferred data sources** |
| Population census |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| Global and regional estimates are based on population-weighted averages using total population. They are presented only if available data cover at least 50% of total population in the regional or global groupings. |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions.<br>The poverty rate is a useful tool for policy makers and donors to target development policies to the poor. Yet it has the drawback that it does not capture the depth of poverty; failing to account for the fact that some people may be living just below the poverty line while others live far below the poverty line. Policymakers seeking to make the largest possible impact on reducing poverty rates might be tempted to direct their poverty alleviation resources to those closest to the poverty line (and therefore least poor). |
| **Comments** |
| **Contact** |

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## F07 : Population median age (years)

| **Population median age (years)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Medianalter der Bevölkerung (Jahre))** |
| **Indicator ID** |
| F07 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| Age that divides the population in two parts of equal size, that is, there are as many persons with ages above the median as there are with ages below the median. |
| **Preferred data sources** |
| Population census |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| Population data are taken from the most recent UN Population Division's "World Population Prospects". |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
| **Contact** |
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## F08 : Population proportion over 60 (%)

| **Population proportion over 60 (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
|---|
| **(Anteil der Bevölkerung über 60 Jahre alt (%))** |

| Indicator ID |
| --- |
| F08 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |
| The percentage of de facto population aged 60 years and older in a country, area or region as of 1 July of the year indicated. |
| **Preferred data sources** |
| Civil registration<br>Population census |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| Population data are taken from the most recent UN Population Division's "World Population Prospects". |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
| **Contact** |
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## F09 : Population proportion under 15 (%)

| **Population proportion under 15 (%)**<br>Source: World Health Statistics 2011, Indicator compendium |
| --- |
| **(Anteil der Bevölkerung unter 15 Jahre alt (%))** |
| **Indicator ID** |
| F09 |
| **Indicator Group** |
| Demographic and socio-economic statistics |
| **Rationale** |
| **Definition** |

| |
|---|
| The percentage of de facto population aged 0-14 years in a country, area or region as of 1 July of the year indicated. |
| **Preferred data sources** |
| Civil registration<br>Population census |
| **Other possible data sources** |
| **Method of measurement** |
| **Method of estimation** |
| Population data are taken from the most recent UN Population Division's "World Population Prospects". |
| **M&E framework** |
| Determinant |
| **Method of estimation of global and regional aggregates** |
| **Disaggregation** |
| **Expected frequency of data collection** |
| **Limitations** |
| |
| **Comments** |
| **Contact** |
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On behalf of
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Cooperation and Development (BMZ)

Division
Division of Health and Population Policies

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