2018

Global Reference List of 100 Core Health Indicators

(plus health-related SDGs)

World Health Organization

2018 edition
featuring health and related SDGs and more

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Contents

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Abbreviations and acronyms

AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral therapy
ARV	Antiretroviral
BMI	Body mass index
DHS	Demographic and Health Surveys
FAOSTAT	Food and Agriculture Organization of the United Nations' statistical database
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
HSS	Health system strengthening
ICD	International Classification of Diseases
IHR	International Health Regulations
IPTp	Intermittent preventive therapy for malaria during pregnancy
IRS	Indoor residual spraying
ITN	Insecticide treated net
JMP	WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation
NCD	Noncommunicable disease
SDG	Sustainable Development Goal
TB	Tuberculosis
UHC	Universal health coverage
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UN-IGME	United Nations Inter-agency Group for Child Mortality Estimation
USAID	United States Agency for International Development
VIA	Visual inspection with acetic acid/vinegar
WHO	World Health Organization

Background

The 2018 Global Reference List of 100 core health indicators (plus health-related SDGs), referred to hereafter as *"The Global Reference List,"* is a standard set of core indicators prioritized by the global community to provide concise information on the health situation and trends, including responses at national and global levels. This second (2018) edition builds on the previous work of the inter-agency working group that was commissioned by global health leaders to reduce reporting burden on countries and that resulted in the 2015 Global Reference List of 100 Core Health Indicators.[1] In addition to the 100 core health indicators, it also includes additional health-related SDGs for reference by users.

The 2018 list of indicators contains modifications and additions that were made in 2017 to reflect the recommended health and health-related indicators of the Sustainable Development Goals, including universal health coverage, among others as well as to reflect updates to indicator metadata elements.

Purpose

The overall aim of *The Global Reference List* is to serve as a normative guidance for the selection of standard indicators and their definitions that countries and partners stakeholders can use for monitoring in accordance with their respective health priorities and capacity. Specifically the objectives of *The Global Reference* List are to:

- Guide the selection of priority indicators for national health sector and programme-specific plans and strategies;
- guide monitoring of health priorities and targets at national and subnational levels;
- facilitate more harmonized domestic and external investments in country data systems and analytical capacity;
- provide a basis for the rationalization and alignment of reporting requirements on results by global partners;
- contribute to higher quality regional and global databases of health results;
- reflect evolving public health priorities and as such be updated and maintained regularly.

It is expected that use of *The Global Reference List* will contribute to the reduction of reporting requirements and to promote greater alignment with, and investment in, one country-led health sector platform for results and accountability that forms the basis for both country and global/regional reporting.[2]

Scope

The Global Reference List reflects indicators of relevance for country, regional and global reporting across the full spectrum of global health priorities, including the new and emerging priorities reflected in the health and health-related SDGS, such as universal health coverage, non-communicable diseases and other key health-related environmental, social, economic and behavioural risk factors.

The list includes a selection of priority indicators relating to 4 domains that includes health status, risk factors, service coverage and health systems.

1 Global Reference List of 100 Core Health Indicators, Geneva: World Health Organization; 2015.

2 Monitoring, evaluation and review of national health strategies. A country-led platform for information and accountability. Geneva: World Health Organization; 2011.

- **Health status** indicators include core indicators including mortality by age, sex and cause (that includes the 16 mortality related indicators of the health and health related SDGs as well as core morbidity and fertility indicators).

- **Risk factors** indicators include those relating to nutrition, environmental, behavioural, injuries and violence.

- **Service coverage** indicators reflect priorities across the spectrum of health services including reproductive, maternal, newborn, child and adolescent, immunization, HIV, TB, malaria, neglected tropical diseases, noncommunicable diseases, mental health and substance abuse.

- **Health systems** indicators include indicators of health system inputs and outputs such as health facility density and distribution, health workforce, health information and quality and safety of care, health security capacity.

Indicator definitions and metadata

For each indicator, a set of standard metadata is available including:

- Each indicator is categorized into (1): one of the 4 domains (e.g. health status, risk factor, coverage, or health systems; then (2) into a subdomain, such as infectious diseases, and (3) associated terms that is usually a programmatic area (e.g. NTDs).

- Indicator definition, including numerator and denominator. Further work is required to fine-tune the definitions of some indicators. For some indicators only a numerator is reported by the country, while models are used to estimate the denominator (although models also need reported data).

- Disaggregations that include age, sex and other equity stratifiers such as geography, socio-economic status, place of residence, target or at risk populations among others.

- In some cases, additional dimensions are used to include further breakdowns of the indicator (e.g. mortality rates by main cause of death or number of cases of IHR notifiable disease by disease.

- Method of measurement and or method of estimation. The recommended method of measurement and measurement frequency are specified for each indicator. Methods of estimation are also described if applicable.

- The preferred data source and other possible data sources are also specified for each indicator. Data sources include:
  - civil registration and vital statistics system with high coverage;
  - national population-based surveys;
  - routine facility information systems;
  - health facility assessments;
  - administrative data sources such as financial and human resources information systems;
  - key informant surveys;
  - indicators from other sources, including modelling.

- Further information and related links i.e. the key reference group, governing body, resolution, or programme publication that specifies monitoring of that particular indicator.

Process for selecting the core indicators

The process of selecting a global reference set of core health indicators is guided by the priority global monitoring requirements relating to health and health-related SDGs, universal health coverage and noncommunicable diseases among others health priorities.

The 2015 Global Reference List was developed based on an initial landscaping exercise that took stock of existing global indicator sets that were developed through (i) monitoring of international commitments and resolutions by which governments have committed their countries, such as United Nations and World Health Assembly declarations and resolutions [3]; and (ii) Disease and programme-specific indicators and reporting requirements recommended through technical monitoring and evaluation reference groups and processes involving United Nations, multilateral and bilateral agencies, and countries.

The 2018 Global Reference List has been updated to reflect the evolving public health priorities and new or revised indicator and reporting requirements. For example:

- Revised list of global Sustainable Development Goal indicators, contained in the Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2017/2), Annex III [4];
- UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS [5];
- WHO consolidated strategic information guidelines for HIV in the health sector [6];
- WHO Noncommunicable diseases global monitoring framework indicator definitions and specifications [7];
- Global Strategy for women's, children's and adolescents' health 2016–2030 [8];
- WHO indicators for the global monitoring framework on maternal, infant and young child nutrition [9].

[3] United Nations General Assembly Resolutions. New York (NY): United Nations; 2017 (http://www.un.org/en/sections/documents/general-assembly-resolutions/, accessed 3 October 2017) and World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

[4] Revised list of global Sustainable Development Goal indicators. New York (NY): United Nations Department of Economic and Social Affairs; 2017 (https://unstats.un.org/sdgs/indicators/indicators-list/, accessed 11 August 2017).

[5] UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

[6] Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017).

[7] WHO noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

[8] Global Strategy for women's, children's and adolescents' health 2016-2030. Geneva, World Health Organization; 2015 (http://www.who.int/life-course/partners/global-strategy/global-strategy-2016-2030/en/, accessed 11 August 2017).

[9] Indicators for the global monitoring framework on maternal, infant and young child nutrition. Geneva: World Health Organization; 2015 (http://www.who.int/nutrition/topics/proposed_indicators_framework/en/, accessed 11 August 2017).

Criteria for prioritizing indicators as core

Indicators have been categorised as either "Core" or "Additional".

Core indicator: An indicator is prioritized as "core" and included in *The Global Reference List* if it meets all of the following criteria:

1. The indicator is prominent in the monitoring of major international declarations to which all member states have agreed, or has been identified through international mechanisms such as reference or interagency groups as a priority indicator in specific programme areas.

2. The indicator is scientifically robust, useful, accessible, understandable as well as specific, measurable, achievable, relevant and time-bound (SMART).

3. There is a strong track record of extensive measurement experience with the indicator (preferably supported by an international database).

4. The indicator is being used by countries in the monitoring of national plans and programmes.

Additional indicator: An indicator is categorized as "additional" if it is considered relevant and desirable but did not meet all the criteria mentioned above. In many cases, these indicators have serious measurement issues and there is little measurement experience associated with them. They have been included in the list as an additional document as they are considered important that require further development.

Summary of changes for the 2018 list

This 2018 revision of *The Global Reference List* builds on the previous 2015 version.

Changes include:

1) Removal of indicators that are no longer recommended as core; or a merging of indicators into one:

- two indicators (HIV care coverage and TB prevalence rate) were dropped from the original list;
- public and private domestic sources of current spending on health were combined;
- total current expenditure on health and total capital expenditure on health were combined.

2) The addition of new indicators that include the health-related SDG indicators and new commitments:

The following indicators have been added to the list, most of which relate to health-related SDGS:

- Adolescent mortality rate
- Mortality from household and ambient air pollution [SDG 3.9.1]
- Mortality from unsafe water, unsafe sanitation and lack of hygiene [SDG 3.9.2]
- Mortality from unintentional poisoning [SDG 3.9.3]
- Number of deaths, missing persons and persons affected by disaster per 100 000 people [SDG 1.5.1, 11.5.1, 13.1.1]
- Mortality rate due to homicide [SDG 16.1.1]
- Hepatitis B incidence [SDG 3.3.4]
- Congenital syphilis rate
- Non-partner sexual violence prevalence [SDG 5.2.2]
- Prevalence of female genital mutilation/ cutting [SDG 5.3.2]
- Sexual violence against children [SDG 16.2.3]
- Early marriage [SDG 5.3.1]
- Frequency rates of occupational injuries [SDG 8.8.1]
- Postnatal care coverage – newborn
- Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]
- Treatment coverage for alcohol and drug dependence [SDG 3.5.1]
- Coverage of essential health services [SDG 3.8.1]
- Total net official development assistance to medical research and basic health sectors [SDG 3.b.2]
- Existence of national health sector policy/ strategy/plan

3) Updates to indicator name or metadata

Many SDG indicators were part of the 2015 edition. Their metadata has been updated to ensure they are current with SDG definitions. Some of these changes are minor but there are a number of indicators with substantive changes, based on technical peer review. Changes were made to their metadata for the following list of indicators.

- Life expectancy at birth
- Adult mortality rate between 15 and 60 years of age
- Under-five mortality rate [SDG 3.2.1]
- Infant mortality rate
- Neonatal mortality rate [SDG 3.2.2]
- Stillbirth rate
- Maternal mortality ratio [SDG 3.1.1]
- TB mortality rate
- AIDS-related mortality rate
- Malaria mortality rate
- Premature noncommunicable disease (NCD) mortality [SDG 3.4.1]
- Suicide rate [SDG 3.4.2]
- Death rate due to road traffic injuries [SDG 3.6.1]
- Adolescent birth rate [SDG 3.7.2]
- Total fertility rate
- New cases of vaccine-preventable diseases
- New cases of IHR-notifiable diseases and other notifiable diseases

- HIV prevalence rate
- HIV incidence rate [SDG 3.3.1]
- Hepatitis B surface antigen prevalence
- Sexually transmitted infections (STIs) incidence rate
- TB incidence rate [SDG 3.3.2]
- TB notification rate
- Malaria parasite prevalence among children aged 6–59 months
- Malaria incidence rate [SDG 3.3.3]
- Cancer incidence, by type of cancer
- Exclusive breastfeeding rate 0–5 months of age
- Early initiation of breastfeeding
- Incidence of low birth weight among newborns
- Children under 5 years who are stunted [SDG 2.2.1]
- Children under 5 years who are wasted [SDG 2.2.2]
- Children aged under 5 years who are overweight [SDG 2.2.2]
- Anaemia prevalence in children
- Anaemia prevalence in women of reproductive age *(Also: severe anaemia)*
- Prevention of HIV in key populations *(2015: condom use at last sex with high-risk partner)*
- Population using safely managed drinking-water services [SDG 6.1.1]
- Population using safely managed sanitation services [SDG 6.2.1a/6.2.1b (forthcoming)] *(Also: population with handwashing facility with soap and water)*
- Population with primary reliance on clean fuels and technologies [SDG 7.1.2]
- Air pollution level in cities [SDG 11.6.2]
- Total alcohol per capita (age 15+ years) consumption [SDG 3.5.2]
- Tobacco use among persons aged 15+ years [SDG 3.a.1] *(Also: adolescents) (2015: Tobacco use among persons aged 18+ years)*
- Raised blood pressure among adults
- Overweight and obesity in adults *(Also: school-age children and adolescents)*
- Raised blood glucose/diabetes among adults
- Salt intake
- Insufficient physical activity in adults *(Also: adolescents)*
- Intimate partner violence prevalence [SDG 5.2.1]
- Demand for family planning satisfied with modern methods [SDG 3.7.1]
- Contraceptive prevalence rate
- Antenatal care coverage
- Births attended by skilled health personnel [SDG 3.1.2] *(Also: institutional delivery – overall and in "baby-friendly" institutions)*
- Postpartum care coverage – women
- Care-seeking for symptoms of pneumonia
- Coverage of diarrhoea treatment
- Vitamin A supplementation coverage
- Immunization coverage rate by vaccine for each vaccine in the national schedule [SDG 3.b.1]
- People living with HIV who know their status *(2015: people living with HIV who have been diagnosed)*
- Prevention of mother-to-child transmission
- Antiretroviral therapy (ART) coverage
- HIV viral load suppression
- Coverage of treatment for latent TB infection (LTBI): *(2015: TB preventive therapy for HIV-positive people newly enrolled in HIV care)*
- HIV test results for TB patients: *(2015: HIV test results for registered new and relapse TB patients)*
- HIV-positive new and relapse TB patients on ART during TB treatment
- Drug susceptibility testing coverage for TB patients
- TB treatment coverage *(2015: TB case detection)*

- Treatment coverage for drug-resistant TB *(2015: second-line treatment coverage among multidrug-resistant tuberculosis (MDR-TB) cases)*
- Intermittent preventive therapy for malaria during pregnancy (IPTp)
- Use of insecticide treated nets (ITNs)
- Treatment of confirmed malaria cases
- Indoor residual spraying (IRS) coverage
- Cervical cancer screening
- Coverage of services for severe mental health disorders
- Perioperative mortality rate
- Obstetric and gynaecological admissions owing to abortion
- Institutional maternal mortality ratio
- Maternal death reviews
- ART retention rate
- TB treatment success rate
- Service-specific availability and readiness
- Outpatient service utilization *(Also: inpatient admissions and surgical volume)*
- Health facility density and distribution *(Also: access to emergency surgery) (2015: Health service access)*
- Hospital bed density
- Access to a core set of relevant essential medicines [SDG 3.b.3]
- Health worker density and distribution [SDG 3.c.1]
- Output training institutions
- Birth registration [SDG 16.9.1]
- Death registration [SDG 17.19.2]
- Completeness of reporting by facilities *(Also: completeness and timeliness for notifiable diseases)*
- Total current expenditure on health as % of gross domestic product *(Also: total capital expenditure on health as % of current + capital expenditure on health) (2015: 2 separate indicators)*
- Public domestic sources of current spending on health as % of current health expenditure *(Also: private) (2015: 2 separate indicators)*
- External source of current spending on health (% of current expenditure on health) *(2015: Externally sourced funding (% of current expenditure on health))*
- Proportion of the population with impoverishing health expenditure *(2015: headcount ratio of impoverishing health expenditure)*
- Proportion of the population with large household expenditure on health as a share of total household expenditure or income [SDG 3.8.2]: *(2015: headcount ratio of catastrophic health expenditure)*
- International Health Regulations (IHR) core capacity index [SDG 3.d.1]

Summary of the 100 core health indicators (plus health-related SDGs)

Health status

Mortality by age and sex

Mortality by cause

Fertility

Morbidity

Risk factors

Nutrition

Infections

Environmental risk factors

Noncommunicable diseases

Injuries/harmful traditional practices

Service coverage

Reproductive, maternal, newborn, child and adolescent

Immunization

HIV

HIV / TB

Tuberculosis

Malaria

Neglected tropical diseases

Screening and preventive care

Mental health

Substance abuse

Essential health services

Health systems

Quality and safety of care

Utilization and access

Health workforce

Health information

Health financing

Health security

Governance

[10] This section on quality and safety of care presents a small number of cross-cutting quality of care indicators. Additional quality of care indicators, marked by an asterisk (*) can also be found in other domains.

100 core health indicators (plus health-related SDGs) by results chain

Inputs and processes → **Output** → **Outcome** → **Impact**

Health financing

- Total current expenditure on health as % of gross domestic product *(Also: total capital expenditure on health as % of current + capital expenditure on health)*
- Public domestic sources of current spending on health as % of current health expenditure *(Also: private)*
- External source of current spending on health (% of current expenditure on health)
- Total net official development assistance to medical research and basic health sectors [SDG 3.b.2]

Health workforce

- Health worker density and distribution [SDG 3.c.1]
- Output training institutions

Health infrastructure

- Health facility density and distribution *(Also: access to emergency surgery)*
- Hospital bed density

Health information / governance

- Birth registration [SDG 16.9.1]
- Death registration [SDG 17.19.2]
- Completeness of reporting by facilities *(Also: completeness and timeliness for notifiable diseases)*
- Existence of national health sector policy/strategy/plan

Service access and availability

- Outpatient service utilization *(Also: inpatient admissions and surgical volume)*
- Service-specific availability and readiness
- Access to a core set of relevant essential medicines [SDG 3.b.3]

Service quality and safety

- Perioperative mortality rate
- Obstetric and gynaecological admissions owing to abortion
- Institutional maternal mortality ratio
- Maternal death reviews
- ART retention rate
- HIV test results for TB patients
- TB notification rate
- TB treatment success rate

Health security

- International Health Regulations (IHR) core capacity index [SDG 3.d.1]

Coverage of interventions

- Demand for family planning satisfied with modern methods [SDG 3.7.1]
- Contraceptive prevalence rate
- Antenatal care coverage
- Births attended by skilled health personnel [SDG 3.1.2] *(Also: institutional delivery – overall and in "baby-friendly" institutions)*
- Postpartum care coverage – women
- Postnatal care coverage – newborn
- Care-seeking for symptoms of pneumonia
- Coverage of diarrhoea treatment
- Vitamin A supplementation coverage
- Immunization coverage rate by vaccine for each vaccine in the national schedule [SDG 3.b.1]
- People living with HIV who know their status
- Prevention of mother-to-child transmission
- Antiretroviral therapy (ART) coverage
- HIV viral load suppression
- Coverage of treatment for latent TB infection (LTBI)
- HIV-positive new and relapse TB patients on ART during TB treatment
- Drug susceptibility testing coverage for TB patients
- TB treatment coverage
- Treatment coverage for drug-resistant TB
- Intermittent preventive therapy for malaria during pregnancy (IPTp)
- Use of insecticide treated nets (ITNs)
- Treatment of confirmed malaria cases
- Indoor residual spraying (IRS) coverage
- Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]
- Coverage of preventive chemotherapy for selected neglected tropical diseases
- Cervical cancer screening
- Coverage of services for severe mental health disorders
- Treatment coverage for alcohol and drug dependence [SDG 3.5.1]
- Coverage of essential health services [SDG 3.8.1]

Risk factors and behaviours

- Exclusive breastfeeding rate 0–5 months of age
- Early initiation of breastfeeding
- Incidence of low birth weight among newborns
- Children under 5 years who are stunted [SDG 2.2.1]
- Children under 5 years who are wasted [SDG 2.2.2]
- Children aged under 5 years who are overweight [SDG 2.2.2]
- Anaemia prevalence in children
- Anaemia prevalence in women of reproductive age *(Also: severe anaemia)*
- Prevention of HIV in key populations
- Population using safely managed drinking-water services [SDG 6.1.1]
- Population using safely managed sanitation services [SDG 6.2.1a/6.2.1b (forthcoming)] *(Also: population with handwashing facility with soap and water)*
- Population with prirmary reliance on clean fuels and technologies [SDG 7.1.2]
- Air pollution level in cities [SDG 11.6.2]
- Total alcohol per capita (age 15+ years) consumption [SDG 3.5.2]
- Tobacco use among persons aged 15+ years [SDG 3.a.1] *(Also: adolescents)*
- Raised blood pressure among adults
- Overweight and obesity in adults *(Also: school-age children and adolescents)*
- Raised blood glucose/diabetes among adults
- Salt intake
- Insufficient physical activity in adults *(Also: adolescents)*
- Intimate partner violence prevalence [SDG 5.2.1]
- Non-partner sexual violence prevalence [SDG 5.2.2]
- Prevalence of female genital mutilation/cutting [SDG 5.3.2]
- Sexual violence against children [SDG 16.2.3]
- Early marriage [SDG 5.3.1]
- Frequency rates of occupational injuries [SDG 8.8.1]

Health status

- Life expectancy at birth
- Adolescent mortality rate
- Adult mortality rate between 15 and 60 years of age
- Under-five mortality rate [SDG 3.2.1]
- Infant mortality rate
- Neonatal mortality rate [SDG 3.2.2]
- Stillbirth rate
- Maternal mortality ratio [SDG 3.1.1]
- TB mortality rate
- AIDS-related mortality rate
- Malaria mortality rate
- Premature noncommunicable disease (NCD) mortality [SDG 3.4.1]
- Mortality from household and ambient air pollution [SDG 3.9.1]
- Mortality from unsafe water, unsafe sanitation and lack of hygiene [SDG 3.9.2]
- Mortality from unintentional poisoning [SDG 3.9.3]
- Suicide rate [SDG 3.4.2]
- Death rate due to road traffic injuries [SDG 3.6.1]
- Number of deaths, missing persons and persons affected by disaster per 100 000 people [SDG 1.5.1, 11.5.1, 13.1.1]
- Mortality rate due to homicide [SDG 16.1.1]
- Adolescent birth rate [SDG 3.7.2]
- Total fertility rate
- New cases of vaccine-preventable diseases
- New cases of IHR-notifiable diseases and other notifiable diseases
- HIV prevalence rate
- HIV incidence rate [SDG 3.3.1]
- Hepatitis B surface antigen prevalence
- Hepatitis B incidence [SDG 3.3.4]
- Sexually transmitted infections (STIs) incidence rate
- Congenital syphilis rate
- TB incidence rate [SDG 3.3.2]
- Malaria parasite prevalence among children aged 6–59 months
- Malaria incidence rate [SDG 3.3.3]
- Cancer incidence, by type of cancer

Finanical risk protection

- Proportion of the population with impoverishing health expenditure
- Proportion of the population with large household expenditure on health as a share of total household consumption or income [SDG 3.8.2]

100 core health indicators

(plus health-related SDGs)

Metadata

Health status indicators

Mortality by age and sex

- Life expectancy at birth
- Adolescent mortality rate
- Adult mortality rate between 15 and 60 years of age
- Under-five mortality rate [SDG 3.2.1]
- Infant mortality rate
- Neonatal mortality rate [SDG 3.2.2]
- Stillbirth rate

Mortality by cause

- Maternal mortality ratio [SDG 3.1.1]
- TB mortality rate
- AIDS-related mortality rate
- Malaria mortality rate
- Premature noncommunicable disease (NCD) mortality [SDG 3.4.1]
- Mortality from household and ambient air pollution [SDG 3.9.1]
- Mortality from unsafe water, unsafe sanitation and lack of hygiene [SDG 3.9.2]
- Mortality from unintentional poisoning [SDG 3.9.3]
- Suicide rate [SDG 3.4.2]
- Death rate due to road traffic injuries [SDG 3.6.1]
- Number of deaths, missing persons and persons affected by disaster per 100 000 people [SDG 1.5.1, 11.5.1, 13.1.1]
- Mortality rate due to homicide [SDG 16.1.1]

Fertility

- Adolescent birth rate [SDG 3.7.2]
- Total fertility rate

Morbidity

- New cases of vaccine-preventable diseases
- New cases of IHR-notifiable diseases and other notifiable diseases
- HIV prevalence rate
- HIV incidence rate [SDG 3.3.1]
- Hepatitis B surface antigen prevalence
- Hepatitis B incidence [SDG 3.3.4]
- Sexually transmitted infections (STIs) incidence rate
- Congenital syphilis rate
- TB incidence rate [SDG 3.3.2]
- TB notification rate
- Malaria parasite prevalence among children aged 6–59 months
- Malaria incidence rate [SDG 3.3.3]
- Cancer incidence, by type of cancer

Life expectancy at birth

Abbreviated name	Life expectancy at birth
Indicator name	Life expectancy at birth
Domain	Health status
Subdomain	General
Associated terms	Mortality by age and sex
Definition	The average number of years that a newborn could expect to live if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory or geographical area.
Numerator	(from life tables)
Denominator	(from life tables)
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status
Method of measurement	Life expectancy at birth is derived from life tables and is based on sex- and age-specific death rates. United Nations values for life expectancy at birth correspond to mid-year estimates, consistent with the corresponding United Nations fertility medium-variant quinquennial population projections.
Method of estimation	Life tables for WHO Member States draw on UN World Population Prospects 2015 revision, recent and unpublished analyses of all-cause and HIV mortality for countries with high HIV prevalence, vital registration data, and estimates of child mortality from UN Inter-agency Group for Child Mortality Estimation. Population numbers are taken from the United Nations' World Population Prospects 2015 revision. More detailed methods are available from the links below. Predominant type of statistics: predicted.
Measurement frequency	Annual if based on preferred data source; otherwise less frequent
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys, population census, sample registration system
Further information and related links	United Nations demographic yearbook. New York (NY): United Nations; 2013 (http://unstats.un.org/unsd/demographic/products/dyb/dyb2.htm, accessed 20 July 2017). WHO methods and data sources for life tables 1990–2015. Geneva: World Health Organization; 2016 (http://www.who.int/healthinfo/statistics/LT_method.pdf, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017). World population prospects. New York (NY): United Nations; 2012 (http://esa.un.org/wpp/, accessed 20 July 2017).

Adolescent mortality rate

Abbreviated name	Adolescent mortality rate
Indicator name	Adolescent mortality rate
Domain	Health status
Subdomain	General
Associated terms	Mortality by age and sex
Definition	Number of deaths among adolescents (10–19 years old) per 100 000 adolescent population.
Numerator	Number of deaths among adolescents aged 10–19.
Denominator	Number of adolescents aged 10–19.
Disaggregation/ additional dimension	Age (10–14, 15–19), place of residence, sex, socioeconomic status
Method of measurement	*Civil or sample registration:* mortality by age and sex are used to calculate age specific rates. *Census:* mortality by age and sex tabulated from questions on recent deaths that occurred in the household during a given period preceding the census (usually 12 months). *Census or surveys:* direct or indirect methods provide adult mortality rates based on information on survival of parents or siblings.
Method of estimation	Mortality rates by age and sex for WHO Member States are derived from life tables which draw on UN World Population Prospects 2015 revision, recent and unpublished analyses of all-cause and HIV mortality for countries with high HIV prevalence, vital registration data, and estimates of child mortality from UN Inter-agency Group for Child Mortality Estimation. Population numbers are taken from the United Nations' World Population Prospects 2015 revision. More detailed methods are available from the links below. Predominant type of statistics: predicted.
Measurement frequency	Continuous data collection; dissemination every 3—5 years
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys, population census, sample registration system
Further information and related links	UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO methods and data sources for country-level causes of death 2000–2015 (http://www.who.int/healthinfo/global_burden_disease/GlobalCOD_method_2000_2015.pdf?ua=1, accessed 20 July 2017). WHO methods and data sources for life tables 1990–2015. Geneva: World Health Organization; 2016 (http://www.who.int/healthinfo/statistics/LT_method.pdf, accessed 20 July 2017). World population prospects: key findings and advanced tables. New York (NY): United Nations; 2015 (https://esa.un.org/unpd/wpp/publications/files/key_findings_wpp_2015.pdf, accessed 20 July 2017).

Adult mortality rate between 15 and 60 years of age

Abbreviated name	Adult mortality rate between 15 and 60 years of age
Indicator name	Adult mortality rate (probably of dying between 15 and 60 years of age per 1000 population)
Domain	Health status
Subdomain	General
Associated terms	Mortality by age and sex
Definition	Probability that a 15-year-old person will die before reaching his or her 60th birthday. The probability of dying between the ages of 15 and 60 years (per 1000 population) per year among a hypothetical cohort of 100 000 people who would experience the age-specific mortality rate of the reporting year.
Numerator	Number of deaths between ages 15 years and 60 years in the synthetic life table population.
Denominator	Population alive at exact age 15 in the synthetic life table population.
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status
Method of measurement	*Civil or sample registration:* Mortality by age and sex are used to calculate age-specific rates. *Census:* Mortality by age and sex is tabulated from questions on recent deaths that occurred in the household during a given period preceding the census (usually 12 months). *Census or surveys:* Direct or indirect methods provide adult mortality rates based on information on survival of parents or siblings.
Method of estimation	Empirical data from different sources are consolidated to obtain estimates of the level and trend of adult mortality by fitting a curve to the observed mortality points. However, to obtain the best possible estimates, judgement needs to be made on data quality and how representative it is of the population. Recent statistics based on data availability in most countries are point estimates at least 3–4 years old which need to be projected forward in order to obtain estimates of adult mortality for the current year. In case of inadequate sources of age-specific mortality rates, the latest life table analyses of the United Nations Population Division were used. Predominant type of statistics: predicted.
Measurement frequency	Annual if based on preferred data source; otherwise less frequent
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys, population census, sample registration system
Further information and related links	WHO methods and data sources for life tables 1990–2015. Geneva: World Health Organization; 2016 (http://www.who.int/healthinfo/statistics/LT_method.pdf, accessed 20 July 2017).

Under-five mortality rate

Abbreviated name	Under-five mortality rate [SDG 3.2.1]
Indicator name	Under-five mortality rate (probability of dying by age 5 per 1000 live births)
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Mortality by age and sex
Definition	The probability of a child born in a specific year or period dying before reaching the age of 5 years, if subject to age-specific mortality rates of that period, expressed per 1000 live births. The under-five mortality rate as defined here is, strictly speaking, not a rate (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of death derived from a life table and expressed as a rate per 1000 live births.
Numerator	Number of deaths among children aged 0–4 years (0–59 months of age), broken down by age groups.
Denominator	Number of live births.
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status *Also: by cause, including pneumonia or diarrhoea*
Method of measurement	The most frequently used methods using the above-mentioned data sources are as follows: *Civil registration:* Number of deaths at age 0 and population of the same age are used to calculate death rates which are then converted into age-specific probability of dying. *Census and surveys:* An indirect method is used based on questions to each woman of reproductive age as to how many children she has ever given birth to and how many are still alive. The Brass method and model life tables are then used to obtain an estimate of infant mortality. *Surveys:* 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 often presented as period rates for five years preceding the survey. A synthetic cohort method developed by the Demographic and Health Surveys (DHS) is used to compute period rates.
Method of estimation	The UN-IGME produces trends of under-five mortality with a standardized methodology by group of countries depending on the type and quality of source of data available. For countries with adequate trend of data from civil registration, the calculations of under-five and infant mortality rates are derived from a standard period abridged life table. For countries with survey data, under-five mortality rates are estimated using the Bayesian B-splines bias-adjusted model. See the UN-IGME link for details. These under-five mortality rates have been estimated by applying methods to the available data from all Member States in order to ensure comparability across countries and time; hence they are not necessarily the same as the official national data. Predominant type of statistics: adjusted and predicted
Measurement frequency	Annual if based on registration system; otherwise, less frequent (3–5 years based on surveys)
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys and population census
Further information and related links	Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). UN-IGME estimation method for child mortality. New York (NY): United Nations Inter-agency Group for Child Mortality Estimation; 2014 (http://www.who.int/entity/gho/child_health/mortality/ChildCME_method.pdf, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017). World population prospects. New York (NY): United Nations; 2017 (https://esa.un.org/unpd/wpp/, accessed 20 July 2017).

Infant mortality rate

Abbreviated name	Infant mortality rate
Indicator name	Infant mortality rate (probability of dying between birth and age of 1 year per 1000 live births)
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Mortality by age and sex
Definition	The probability that a child born in a specific year or period will die before reaching the age of 1 year, if subject to age-specific mortality rates of that period, expressed as a rate per 1000 live births. The infant 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.
Numerator	Number of children who died before their first birthday (0—11 months of age).
Denominator	Number of live births.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status (neonatal: 0—27 days, postneonatal: 28 days—<1 year)
Method of measurement	The most frequently used methods using the above-mentioned data sources are as follows: *Civil registration:* Number of deaths at age 0 and population for the same age are used to calculate the death rate which is then converted into the age-specific probability of dying. *Census and surveys:* An indirect method is used based on questions to each woman of reproductive age as to how many children she has ever given birth to and how many are still alive. The Brass method and model life tables are then used to obtain an estimate of infant mortality. *Surveys:* 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 often presented as period rates for five years preceding the survey. A synthetic cohort method developed by the DHS is used to compute period rates
Method of estimation	The UN-IGME produces trends of infant mortality rates with a standardized methodology by group of countries depending on the type and quality of source of data available. For countries with adequate trend of data from civil registration, the calculations of under-five and infant mortality rates are derived from a standard period abridged life table. For countries with survey data, since infant mortality rates from birth histories of surveys are exposed to recall biases, infant mortality is derived from the projection of under-five mortality rates converted into infant mortality rates using the Bayesian B-splines bias-adjusted model. These infant mortality rates have been estimated by applying methods to the available data from all Member States in order to ensure comparability across countries and time; hence they are not necessarily the same as the official national data. Predominant type of statistics: adjusted and predicted.
Measurement frequency	Annual if based on registration system; otherwise, less frequent (3—5 years based on surveys)
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys and population census
Further information and related links	UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). UN-IGME estimation method for child mortality. New York (NY): United Nations Inter-agency Group for Child Mortality Estimation; 2014 (http://www.who.int/entity/gho/child_health/mortality/ChildCME_method.pdf, accessed 20 July 2017). World population prospects. New York (NY): United Nations; 2017 (https://esa.un.org/unpd/wpp/, accessed 20 July 2017).

Abbreviated name	Neonatal mortality rate [SDG 3.2.2]
Indicator name	Neonatal mortality rate (per 1000 live births)
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Mortality by age and sex
Definition	Probability that a child born in a specific year or period will die in the first 28 days of life (0–27 days) if subject to age-specific mortality rates of that period, expressed per 1000 live births. 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.
Numerator	Number of children who died during the first 28 days of life.
Denominator	Number of live births.
Disaggregation/ additional dimension	Age in days/weeks, birth weight, place of residence, sex, socioeconomic status
Method of measurement	*Data from civil registration:* The number of live births and the number of neonatal deaths are used to calculate age-specific rates. This system provides annual data. *Data from household surveys:* Calculations are based on full birth history, whereby women are asked for the date of birth of each of their children, whether each child is still alive and if not the age at death.
Method of estimation	To ensure consistency with mortality rates in children younger than 5 years (under-five mortality rate) produced by the UN-IGME and to account for variation in survey-to-survey measurement errors, country data points for the under-five and neonatal mortality rates were rescaled for all years to match the latest time series estimates of the under-five mortality rate produced by UN-IGME. This rescaling assumes that the proportionate measurement error in neonatal and under-five mortality rates is equal for each data point. The following multilevel statistical model was then applied to estimate neonatal mortality rates: log (neonatal mortality rate/1000) = α0 + β1*log(under-five mortality rate/1000) + β2*([log(under-five mortality rate/1000)] 2) with random effects parameters or both level and trend regression parameters, and random effects parameters influenced by the country itself. For countries with high-quality civil registration data for neonatal deaths – defined as (i) 100% complete for adults and only civil registration data is used for child mortality, (ii) population greater than 800 000, (iii) and with at least three civil registration data points for the periods 1990–1994, 1995–1999, 2000–2004 and 2005 onwards – we used the same basic equation, but with random effects parameters for both level and trend regression parameters, and random effects parameters influenced by the country itself. Predominant type of statistics: adjusted and predicted. These neonatal rates are estimates, derived from the estimated UN-IGME neonatal rate infant population for World population prospects to calculate the live births; hence they are not necessarily the same as the official national statistics.
Measurement frequency	Annual if based on registration system; otherwise, less frequent (3–5 years based on surveys)
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys and population census
Further information and related links	Every newborn: an action plan to end preventable deaths. Geneva: World Health Organization; 2014 (http://www.everynewborn.org/Documents/Full-action-plan-EN.pdf, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017). World population prospects. New York (NY): United Nations; 2017 (https://esa.un.org/unpd/wpp/, accessed 20 July 2017).

Stillbirth rate

Abbreviated name	Stillbirth rate
Indicator name	Stillbirth rate
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Mortality by age and sex
Definition	Number of stillbirths per 1000 total births. Stillbirths can occur antepartum or intrapartum. In many cases, stillbirths reflect inadequacies in antenatal care coverage or in intrapartum care. For purposes of international comparison, stillbirths are defined as third trimester fetal deaths (≥ 1000 g or ≥28 weeks).
Numerator	Number of fetuses and infants born per year with no sign of life and born after 28 weeks gestation, or weighing ≥ 1000g.
Denominator	Total births.
Disaggregation/ additional dimension	Age in days/weeks, birth weight, place of residence, sex, socioeconomic status, suspected timing (antepartum, intrapartum – where possible)
Method of measurement	*Data from civil registration:* the number of stillbirths divided by the number of total births. *Data from surveys:* the number of pregnancy losses during or after the seventh month of pregnancy for the 5 years preceding the interview, divided by the sum of live births and late pregnancy losses in the same time period. *Data from administrative reporting systems/registries:* the number of stillbirths divided by the number of total births. *Data from health facilities:* the number of stillbirths divided by the number of total births documented in the facility.
Method of estimation	For data from countries with civil registration and good coverage, data meeting definition criteria of greater than or equal to 1000 g or 28 completed weeks gestation are taken directly from civil registration without adjustment. For other countries, stillbirth rates are estimated with a regression model.
Measurement frequency	Continuous data collection; dissemination every 3—5 years
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage, national population-based surveys
Other possible data sources	Routine facility information systems – HMIS, health facility assessments, special studies
Further information and related links	Blencowe H, Cousens S, Jassir FB, Say L, Chou D, Mathers C et al for The Lancet Stillbirth Epidemiology Investigator Group. National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis. Lancet[electronic resource]. 18 January 2016;doi:10.1016/S2214-109X(15)00275-2 (http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(15)00275-2/fulltext, accessed 20 July 2017). Every newborn: an action plan to end preventable deaths. Geneva: World Health Organization; 2014 (http://www.everynewborn.org/Documents/Full-action-plan-EN.pdf, accessed 20 July 2017).

Abbreviated name	Maternal mortality ratio [SDG 3.1.1]
Indicator name	Maternal mortality ratio (per 100 000 live births)
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Mortality by cause
Definition	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, expressed per 100 000 live births, for a specified time period.
Numerator	Number of maternal deaths.
Denominator	Number of live births.
Disaggregation/ additional dimension	Age, place of residence
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. The maternal mortality ratio can be calculated from data collected through civil registration vital statistic (CVRS) systems, household surveys or other sources. There are often data quality problems, particularly related to the incompleteness and misclassification of maternal deaths. Therefore, data are often adjusted in order to take these data quality issues into account. Because maternal mortality is a relatively rare event, large sample sizes are needed if household surveys are used to identify recent maternal deaths in the household (e.g. last year). This may still result in estimates with large confidence intervals, limiting the usefulness for cross-country or over-time comparisons. To reduce sample size requirements, the sisterhood method used in the DHS and multiple indicator cluster surveys (MICS4 and MICS5) measures maternal mortality by asking respondents about the survival of sisters. It should be noted, regarding the sisterhood method results in pregnancy-related mortality, that regardless of the 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. Censuses have also included questions about maternal deaths with variable success. 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 deaths are maternal or pregnancy-related.
Method of estimation	WHO, UNICEF, UNFPA, the United Nations Population Division and The World Bank Group 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 misclassification of deaths as well as development of estimates through statistical modelling for countries with no reliable national level data. Data on maternal mortality and other relevant variables are obtained through databases maintained by WHO, the United Nations Population Division, UNICEF, and The World Bank Group. Data available from countries varies in terms of 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 good quality data available (CRVS type data), however, with the exception of very specialized studies such as confidential enquires, most data points require some pre-analysis adjustment to account for misclassification. 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 nationally representative eligible 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 within which the true levels are more likely to lie. Predominant type of statistics: predicted.
Measurement frequency	Annual for civil registration; every 5 years or more for other sources
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration vital statistics with high coverage and medical certification of cause of death and regular assessment of misreporting and incompleteness
Other possible data sources	National population-based surveys, population census, sample or sentinel registration systems, special studies
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division. Trends in maternal mortality: 1990 to 2015. Geneva: World Health Organization; 2015. Available at: http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/ (accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017). World population prospects. New York (NY): United Nations; 2017 (https://esa.un.org/unpd/wpp/, accessed 20 July 2017).

TB mortality rate

Abbreviated name	TB mortality rate
Indicator name	Tuberculosis (TB) mortality rate (per 100 000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Mortality by cause
Definition	Estimated number of deaths caused by TB in a given year, expressed as a rate per 100 000 population.
Numerator	Number of deaths due to TB (all forms) in a given year, excluding deaths in HIV-positive TB cases.
Denominator	Estimated population in the reporting year.
Disaggregation/ additional dimension	Age, place of residence, sex
Method of measurement	Vital registration data based on ICD–10 are used where available (approximately 120 countries). ICD–10 codes used are A15–A19 and which are equivalent to codes 010–018, and 137 from ICD–9. For other countries, estimates of mortality are derived as the product of estimates of incidence and the case fatality rate.
Method of estimation	Estimates of TB mortality are generated through a consultative and analytical process led by WHO and are published annually. Uncertainty bounds are provided in addition to best estimates.
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration with full coverage and cause of death based on ICD–10
Other possible data sources	Special studies, sample or sentinel registration systems, national population-based surveys with verbal autopsy
Further information and related links	Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

AIDS-related mortality rate

Abbreviated name	AIDS-related mortality rate
Indicator name	AIDS-related mortality rate (per 100 000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Mortality by cause
Definition	Estimated number of adults and children who have died due to AIDS-related causes in a specific year, expressed as a rate per 100 000 population.
Numerator	Number of deaths due to AIDS x 100 000.
Denominator	Estimated population in the reporting year.
Disaggregation/ additional dimension	Age (<5, 5–14, 15+), geographic location, sex, TB status
Method of measurement	Death registration data using ICD; verbal autopsy-based results are also used. The number of AIDs-related deaths can also be modelled using the Spectrum software.
Method of estimation	For countries with complete civil registration and households surveys with good coverage of verbal autopsy, estimates of AIDS-related mortality rates may be calculated directly. Adjustments are often still needed because of underreporting/misclassification of HIV/AIDS deaths. Modelling, using multiple inputs specific to the HIV epidemic context, is typically used to obtain an estimate of the AIDS-related mortality rate. UNAIDS supports most countries to produce estimates of the AIDS-related mortality rate annually using Spectrum.
Measurement frequency	To calculate mortality rates per 100 000, the total population is derived from the previous year's population estimates produced by the United Nations Population Division.
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration with full coverage and cause of death based on ICD, otherwise, modelled estimates of the AIDS-related mortality rate
Other possible data sources	Sample registration systems with causes of death, national population-based surveys with verbal autopsy, modelled estimates
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Spectrum software. Glastonbury (CT): Avenir Health. (http://www.avenirhealth.org/software-spectrum.php, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Malaria mortality rate

Abbreviated name	Malaria mortality rate
Indicator name	Malaria mortality rate (per 100 000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Mortality by cause
Definition	Number of adults and children who have died due to malaria in a specific year, expressed as a rate per 100 000 population.
Numerator	Number of deaths due to malaria.
Denominator	Number of years of exposure.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status
Method of measurement	Death registration data using ICD–10; verbal autopsy-based results are also used.
Method of estimation	Modelling, using multiple inputs, is often used to obtain a malaria mortality estimate. WHO compiles information supplied by ministries of health (i.e. the agencies responsible for malaria surveillance in endemic countries). The procedures for adjusting data to allow for international comparability are as follows: The number of malaria deaths is derived by one of two methods: 1. by multiplying the estimated number of *P. falciparum* malaria cases in a country by a fixed case-fatality rate. This method is used for all countries outside the WHO African Region and for countries in the African Region where estimates of case incidence are derived from routine reporting systems and where malaria accounts for less than 5% of all deaths in children under 5 years, as described in the Global Burden of Disease Incremental Revision for 2004. A case fatality rate of 0.45% is applied to the estimated number of *P. falciparum* cases for countries in the African Region and a case fatality rate of 0.3% for *P. falciparum* cases in other regions. (In situations where the fraction of all deaths due to malaria is small, the use of a case fatality rate in conjunction with estimates of case incidence is considered to provide a better guide to the levels of malaria mortality than attempts to estimate the fraction of deaths due to malaria.) 2. For countries in the African Region where malaria comprises 5% or more of all deaths in children under 5 years, the number of deaths is derived from an estimate of the number of people living at high, low or no risk of malaria. Malaria death rates for these populations are inferred from longitudinal studies of malaria deaths, as recorded in the published literature. The malaria death rate is expressed as the number of deaths due to malaria per 100 000 population per year with the population of a country derived from projections made by the United Nations Population Division. The adjustment procedures described above aim to take into account underreporting of cases if patients do not use public sector facilities or if there are gaps in public sector reporting systems. For countries that do not undertake laboratory confirmation of cases, the adjustments also aim to correct for over-diagnosis of malaria. Where data from surveillance systems are not available, or are considered to be of insufficient quality, incidence is derived from estimated levels of malaria risk and will chiefly be from sources other than locally-available estimates. Predominant type of statistics: predicted. Age standardization is done for comparability over time and between populations.
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with full coverage and medical certification of cause of death
Other possible data sources	Household surveys with verbal autopsy; routine facility information systems; special studies
Further information and related links	Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Roll Back Malaria Partnership/WHO. Disease surveillance for malaria control: an operations manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Premature noncommunicable disease (NCD) mortality

Abbreviated name	Premature noncommunicable disease (NCD) mortality [SDG 3.4.1]
Indicator name	Mortality between ages 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases
Domain	Health status
Subdomain	NCDs
Associated terms	Mortality by cause
Definition	Probability of dying between the ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases, defined as the per cent of 30-year-old-people who would die before their 70th birthday from cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS). This indicator is calculated using life table methods.
Numerator	Number of deaths between ages 30 and 70 years from the four causes in a synthetic life-table population.
Denominator	Population at exact age 30 in the synthetic life-table population.
Disaggregation/ additional dimension	Place of residence, sex
Method of measurement	Deaths from these four causes are based on the following ICD codes: I00–I99, C00–C97, E10–E14 and J30–J98.
Method of estimation	Modelling, using multiple inputs, is often used if no complete and accurate data are available.
Measurement frequency	Annual if civil registration data; otherwise every 3–5 years
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system
Other possible data sources	National population-based surveys with verbal autopsy
Further information and related links	Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Mortality from household and ambient air pollution

Abbreviated name	Mortality from household and ambient air pollution [SDG 3.9.1]
Indicator name	Mortality attributable to joint effects of household and ambient air pollution
Domain	Health status
Subdomain	Environment
Associated terms	Mortality by cause
Definition	The mortality attributable to the joint effects of household and ambient air pollution can be expressed as number of deaths or death rates. Death rates are calculated by dividing the number of deaths by the total population (or indicated if a different population group is used, e.g. children under 5 years).
Numerator	Number of deaths.
Denominator	Population.
Disaggregation/ additional dimension	Age (<5)
Method of measurement	
Method of estimation	Burden of disease (or in the present case attributable mortality) is calculated by first combining information on the increased (or relative) risk of a disease resulting from exposure, with information on how widespread the exposure is in the population (e.g. the annual mean concentration of particulate matter to which the population is exposed). This allows calculation of the population attributable fraction (PAF), which is the fraction of disease seen in a given population that can be attributed to the exposure (e.g. in this case the annual mean concentration of particulate matter). Applying this fraction to the total burden of disease (e.g. cardiopulmonary disease expressed as deaths or DALYs), gives the total number of deaths or DALYs that results from exposure to that particular risk factor (in the example given above, to ambient air pollution). To estimate the combined effects of risk factors, a joint population attributable fraction is calculated, as described in Ezzati et al (2003). Method of estimation of global and regional aggregates: for deaths, national figures are summed; for death rates, the country deaths are summed according to the region of interest and divided by the corresponding regional population.
Measurement frequency	
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage and medical certification of cause of death, special studies, surveys
Other possible data sources	
Further information and related links	Burden of disease from joint Household and Ambient Air Pollution for 2012. Geneva: World Health Organization; 2016 (http://www.who.int/phe/health_topics/outdoorair/databases/AP_jointeffect_methods_Nov2016.pdf, accessed 8 May 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Mortality from unsafe water, unsafe sanitation and lack of hygiene

Abbreviated name	Mortality from unsafe water, unsafe sanitation and lack of hygiene [SDG 3.9.2]
Indicator name	Mortality rate attributed to unsafe water, unsafe sanitation, and lack of hygiene (exposure to unsafe water, sanitation and hygiene for all (WASH) services)
Domain	Health status
Subdomain	Environment
Associated terms	Mortality by cause
Definition	Number of deaths from unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe WASH services) in a year, divided by the population, and multiplied by 100 000.
Numerator	Number of deaths from unsafe water, unsafe sanitation and lack of hygiene in a year x 100 000.
Denominator	Population.
Disaggregation/ additional dimension	Age, geographic location, socioeconomic status, sex
Method of measurement	The included diseases are the WASH attributable fractions of diarrhoea (ICD–10 code A00, A01, A03, A04, A06–A09), intestinal nematode infections (ICD–10 code B76–B77, B79) and protein-energy malnutrition (ICD–10 code E40–E46).
Method of estimation	Burden of disease (or in the present case attributable mortality) is calculated by first combining information on the increased (or relative) risk of a disease resulting from exposure, with information on how widespread the exposure is in the population (in this case, the percentage of the population with exposure to unsafe water, sanitation and lack of hygiene). This allows calculation of the 'population attributable fraction' (PAF), which is the fraction of disease seen in a given population that can be attributed to the exposure, in this case lack of access to improved water, sanitation and hygiene. Applying this fraction to the total burden of disease (e.g. diarrhoeal diseases expressed as deaths or DALYs), gives the total number of deaths or DALYs that results from inadequate water, sanitation and hygiene. Method of estimation of global and regional aggregates: for deaths and DALYs, national figures are summed. For death and DALY rates, the country deaths, respectively DALYs, are summed according to the region of interest and divided by the corresponding regional population.
Measurement frequency	
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage and cause of death based on ICD with estimates of use of safely managed drinking water services [SDG 6.1], safely managed sanitation [SDG 6.2a] and hand-washing with soap and water [SDG 6.2b].
Other possible data sources	
Further information and related links	Pruss-Ustün A, Bartram J, Clasen T, Colford JM, Cumming O, Curtis V et al. Burden of disease from inadequate water, sanitation and hygiene in low- and middle-income settings: a retrospective analysis of data from 145 countries. Trop Med Int Health. 2014;19(8):894–905 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255749/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). WHO methods and data sources for country-level causes of death 2000–2012. Geneva: World Health Organization; 2014 (http://www.who.int/healthinfo/global_burden_disease/GlobalCOD_method_2000_2012.pdf, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Mortality from unintentional poisoning

Abbreviated name	Mortality from unintentional poisoning [SDG 3.9.3]
Indicator name	Mortality rate attributed to unintentional poisoning (per 100 000 population)
Domain	Health status
Subdomain	Injury and violence
Associated terms	Mortality by cause
Definition	Number of deaths from unintentional poisonings (per 100 000 population), for the year indicated.
Numerator	Number of deaths from unintentional poisionings.
Denominator	Population.
Disaggregation/ additional dimension	Age, cause, sex
Method of measurement	Death registration data including cause of death, often with adjustments for underreporting.
Method of estimation	Modelling, using multiple inputs, is often used if no complete and accurate data are available.
Measurement frequency	Every 2–3 years
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage (estimated at 85% or more) and medical certification of cause of death
Other possible data sources	National population-based surveys with verbal autopsy, sample or sentinel registration systems, special studies and surveillance systems
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Suicide rate

Abbreviated name	Suicide rate [SDG 3.4.2]
Indicator name	Suicide rate (per 100 000 population)
Domain	Health status
Subdomain	Injury and violence
Associated terms	Mortality by cause
Definition	Suicide rate per 100 000 population in a specified period.
Numerator	Number of suicide deaths in year x 100 000.
Denominator	Population.
Disaggregation/ additional dimension	Age, place of residence, sex
Method of measurement	Death registration data including cause of death, often with adjustments for underreporting
Method of estimation	Modelling, using multiple inputs, is often used if no complete and accurate data are available.
Measurement frequency	Annual if civil registration data are available, otherwise every five years
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage and medical certification of cause of death
Other possible data sources	Special studies; national population-based surveys with verbal autopsy, sample or sentinel registration systems
Further information and related links	Mental Health Action Plan, 2013–2020. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf?ua=1, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Death rate due to road traffic injuries

Abbreviated name	Death rate due to road traffic injuries [SDG 3.6.1]
Indicator name	Death rate due to road traffic injuries
Domain	Health status
Subdomain	Injury and violence
Associated terms	Mortality by cause
Definition	Number of road traffic fatal injury deaths per 100 000 population.
Numerator	Number of deaths due to road traffic crashes x 100 000.
Denominator	Population.
Disaggregation/ additional dimension	Age, income group, road users, sex, WHO regions
Method of measurement	Death registration data using ICD: I. ICD-10 4–character: V011–V019, V021–V029, V031–V039, V041–V049, V061–V069, V092, V093, V103–V109, V113–V119, V123–V129, V133–V139, V143–V149, V154–V159, V164–V169, V174–V179, V184–V189, V194–V199, V203–V209, V213–V219, V223–V229, V233–V239, V243–V249, V253–V259, V263–V269, V273–V279, V283–V289, V294–V299, V304–V309, V314–V319, V324–V329, V334–V339, V344–V349, V354–V359, V364–V369, V374–V379, V384–V389, V394–V399, V404–V409, V414–V419, V424–V429, V434–V439, V444–V449, V454–V459, V464–V469, V474–V479, V484–V489, V494–V499, V504–V509, V514–V519, V524–V529, V534–V539, V544–V549, V554–V559, V564–V569, V574–V579, V584–V589, V594–V599, V604–V609, V614–V619, V624–V629, V634–V639, V644–V649, V654–V659, V664–V669, V674–V679, V684–V689, V694–V699, V704–V709, V714–V719, V724–V729, V734–V739, V744–V749, V754–V759, V764–V769, V774–V779, V784–V789, V794–V799, V803–V805, V811, V821, V828, V829, V830–V833, V840–V843, V850–V853, V860–V863, V870–V879, V892, V893, V899, V99, Y850. II. ICD-10 3-character: V01–V04, V06, V09–V80, V87, V89, V99.
Method of estimation	Countries are classified into one of four following groups: 1. Countries with death registration data completeness of at least 80%. For this category we used one of the following data: death registration/ civil registration, projection of the most recent death registration, reported death or projected reported deaths. 2. Countries with other sources of information on cause of death. This group includes India, Iran, Thailand and Viet Nam. For these countries a regression method was used to project forward the most recent year for which an estimate of total road traffic deaths were available. 3. Countries with population less than 150 000 and did not have eligible death registration data. For these countries the death reported in the survey were used directly, without adjustment. 4. Countries without eligible death registration data. For these countries a negative binomial regression model was used. For more information about this process, see Global Status Report on Road Safety 2015 (pp. 70:74).
Measurement frequency	Annual if civil registration data are available, otherwise every 2–3 years based on the data from Global Status Report on Road Safety
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys with verbal autopsy, administrative reporting systems (police reporting system), road safety surveys
Further information and related links	Global status report on road safety: time for action. Geneva: World Health Organization; 2009 (www.who.int/violence_injury_prevention/road_safety_status/2009, accessed 20 July 2017). Organisation for Economic Co-operation and Development. Health at a Glance 2013: OECD Indicators, Paris: OECD Publishing; 2013 (http://dx.doi.org/10.1787/health_glance-2013-en, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Number of deaths, missing persons and persons affected by disaster per 100 000 people

Abbreviated name	Number of deaths, missing persons and persons affected by disaster per 100 000 people [SDG 1.5.1, 11.5.1, 13.1.1]
Indicator name	Number of deaths, missing persons and persons affected by disaster per 100 000 people
Domain	Health status
Subdomain	General
Associated terms	Mortality by cause
Definition	*Deaths:* Number of people who died during the disaster, or directly after, as a direct result of the hazardous event. *Missing:* Number of people whose whereabouts is unknown since the hazardous event. It includes people who are presumed dead although there is no physical evidence. The data on number of deaths and number of missing are mutually exclusive. *Affected:* People who are affected, either directly or indirectly, by a hazardous event. *Directly affected:* People who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets. *Indirectly affected:* People who have suffered consequences, other than or in addition to direct effects, over time due to disruption or changes in economy, critical infrastructures, basic services, commerce, work or social, health and psychological consequences.
Numerator	Number of deaths; Number of missing persons; Number of people affected (injured and ill).
Denominator	Total population.
Disaggregation/ additional dimension	Age, country, event, hazard type (natural, biological, technological), hazard family (e.g. using IRDR classification, natural hazards can be disaggregated as climatological, hydrological, meteorological, geophysical, biological and extra-terrestrial), place of residence, sex
Method of measurement	Estimated deaths for natural and technological disasters should be obtained from the national disaster databases and estimated deaths from biological hazards (epidemics) should be obtained from Ministries of Health. Summation of data on related sub-indicators from national disaster loss databases divided by the sum of relative figures of global population data (e.g. World Bank or UN Statistics information). Affected people will be calculated as summation of sub-indicators. Several of sub-indicators will be calculated based on country averages of inhabitants per household, number of workers per hectare of agriculture, per livestock, per industry and per commerce.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Ministries of Health, National disaster loss database, reported to UNISDR
Other possible data sources	
Further information and related links	Sendai framework for disaster risk reduction 2015–2030. New York (NY): United Nations; 2015 (https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). The International Disaster Database: Centre for Research on the Epidemiology of Disasters (CRED). Brussels: CRED; 2009 (http://emdat.be/, accessed 20 July 2017). WHO methods and data sources for life tables 1990–2015. Geneva: World Health Organization; 2016 (http://www.who.int/entity/healthinfo/statistics/LT_method.pdf?ua=1, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Mortality rate due to homicide

Abbreviated name	Mortality rate due to homicide [SDG 16.1.1]
Indicator name	Number of victims of intentional homicide per 100 000 population
Domain	Health status
Subdomain	Injury and violence
Associated terms	Mortality by cause
Definition	The killing of a person with intent to cause death or serious injury, by any means. Infanticide should be included. Excludes cases where the perpetrator was merely reckless or negligent, cases due to legal intervention, and cases due to operations of war.
Numerator	Number of homicides.
Denominator	Population.
Disaggregation/ additional dimension	Age, mechanism, sex
Method of measurement	Civil registration data using ICD: ICD 10 X85–Y09, Y87.1; ICD 9 E960–E969.
Method of estimation	The estimates of homicide rates draw on data from national police and vital registration systems, collected through UNODC's global studies on homicide, and the WHO Mortality Database. For countries without high quality data systems, the estimation process uses regression modelling to project homicide rates and numbers based on empirical relationships between observed homicide data in countries with high quality data systems and other variables.
Measurement frequency	Annual for countries with available data
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	Administrative reporting systems (criminal justice/police reporting system)
Further information and related links	Global estimates on causes of death 2000–2015. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/global_burden_disease/estimates/en/index1.html, accessed 20 July 2017). Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children. Geneva: World Health Organization; 2016 (http://www.who.int/violence_injury_prevention/publications/violence/PoA_violence/en/, accessed 20 July 2017). Global status report on violence prevention 2014. Geneva: World Health Organization; 2014 (http://www.who.int/violence_injury_prevention/violence/status_report/2014/en/, accessed 20 July 2017). Global study on homicide. Vienna: United Nations Office on Drugs and Crime; 2013 (https://www.unodc.org/gsh/en/data.html, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Adolescent birth rate

Abbreviated name	Adolescent birth rate [SDG 3.7.2]
Indicator name	Adolescent birth rate (per 1000 girls aged 10–14 year; aged 15–19 years)
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Fertility
Definition	Annual number of births to females aged 10–14 or 15–19 years per 1000 females in the respective age group.
Numerator	Number of live births to women aged 10–14 years or 15–19 years.
Denominator	Exposure to childbearing by women aged 10–14 years or 15–19 years.
Disaggregation/ additional dimension	Age, education, geographic location, marital status, number of living children, socioeconomic status and other categories (depending on the data source and number of observations)
Method of measurement	The adolescent birth rate is generally computed as a ratio. The numerator is the number of live births to women aged 15–19 years, and the denominator is an estimate of exposure to childbearing by women aged 15–19 years. The numerator and the denominator are calculated differently for civil registration and survey and census data. *Civil registration:* In the case of civil registration the numerator is the registered number of live births born to women aged 15–19 years during a given year, and the denominator is the estimated or enumerated population of women aged 15–19 years. *Survey data:* In the case of survey data, the adolescent birth rate is generally computed on the basis of retrospective birth histories. The numerator refers to births to women who were 15–19 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 years 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. *Census data:* With census data, the adolescent birth rate is generally computed on the basis of 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 under-registration 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 (see: http://mdgs.un.org/unsd/mdg/Metadata.aspx, accessed 20 July 2017). If numbers are available, adolescent fertility at ages under 15 years can also be computed. As measurement methods for 10–14 years are still under development, what is most frequently published is the birth rate for 15–19 years.
Method of estimation	World Fertility Data 2015 builds on the historical repository of demographic data and census and survey reports collected over the past 50 years by the Population Division and Statistics Division of the Department of Economic and Social Affairs (DESA) of the United Nations Secretariat. Data derived from censuses are generally reported by National Statistical Offices to the Statistics Division. Census data are also obtained from official census publications produced by National Statistical Offices. Estimates based on data compiled from civil registration systems are generally obtained from National Statistical Offices. Additional sources of data include the Demographic and Health Surveys (DHS), the Multiple Indicator Cluster Surveys (MICS), the Reproductive Health Surveys (RHS), the Statistical office of the European Union (Eurostat), the Human Fertility Database (HFD) (www.humanfertility.org), the Human Fertility Collection (HFC) (www.fertilitydata.org), the Pan-Arab Project for Child Development Surveys (PAPCHILD), the Pan-Arab Project for Family Health Survey (PAPFAM), national surveys, as well as fertility estimates produced by the Population Division of DESA. Estimate refers to the average of two five-year periods, 2010–2015 and 2015–2020. Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, DVD Edition. http://esa.un.org/unpd/wpp/Download/Standard/Fertility/ (accessed 20 July 2017).
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics system with high coverage
Other possible data sources	National population-based surveys, population census
Further information and related links	Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Monitoring progress in family planning: theFP2020 core indicators. Glastonbury (CT): Track20 (http://www.track20.org/pages/data.php, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). The UNFPA Strategic Plan, 2014–2017. Report of the Executive Director. New York (NY): United Nations Population Fund; 2013 (http://www.unfpa.org/resources/strategic-plan-2014-2017, accessed 31 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World Fertility Data 2015. New York (NY): United Nations; 2017 (http://www.un.org/en/development/desa/population/publications/dataset/fertility/wfd2015.shtml, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Total fertility rate

Abbreviated name	Total fertility rate
Indicator name	Total fertility rate
Domain	Health status
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Fertility
Definition	Mean number of children a woman would have by age 50 if she survived to age 50 and was subject, throughout her life, to the age-specific fertility rates observed in a given year. The total fertility is expressed as the number of children per woman. Total fertility is computed as the sum of age-specific fertility rates divided by 1000.
Numerator	
Denominator	
Disaggregation/ additional dimension	Place of residence, socioeconomic status *Also: General fertility rate*
Method of measurement	Total fertility rate is directly calculated as the sum of age-specific fertility rates (usually referring to women aged 15–49 years), or five times the sum if data are given in five-year age groups. An age-specific 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 geographical 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.
Measurement frequency	Annual if based on civil registration and vital statistics (CRVS); once every 3–5 years if based on surveys and census
Monitoring and evaluation framework	Impact
Preferred data sources	Civil registration and vital statistics systems
Other possible data sources	National population-based surveys, population census
Further information and related links	The UNFPA Strategic Plan, 2014–2017. Report of the Executive Director. New York (NY): United Nations Population Fund; 2013 (http://www.unfpa.org/resources/strategic-plan-2014-2017, accessed 31 August 2017). World Fertility Data 2015. New York (NY): United Nations; 2017 (http://www.un.org/en/development/desa/population/publications/dataset/fertility/wfd2015.shtml, accessed 20 July 2017).

New cases of vaccine-preventable diseases

Abbreviated name	New cases of vaccine-preventable diseases
Indicator name	New cases of vaccine-preventable diseases
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of confirmed new cases of vaccine-preventable diseases that are included in the WHO recommended standards for surveillance of selected vaccine-preventable diseases, and vaccine-preventable diseases reported on the WHO-UNICEF reporting form in a specified time period.
Numerator	Number of new cases.
Denominator	
Disaggregation/ additional dimension	Age, disease (diphtheria, hepatitis B, pertussis, neonatal tetanus, total tetanus, measles, rubella, congenital rubella syndrome, mumps, diarrhoea, pneumonia, Japanese encephalitis, yellow fever), geographic location (e.g. district), sex, vaccination status (only collected for measles and rubella during the monthly data collection from regional offices to HQ)
Method of measurement	Passive surveillance with regular reporting and quality control.
Method of estimation	Adjustments for underreporting may be needed. Currently only reported data without any adjustment are published.
Measurement frequency	Annually and monthly for measles and rubella
Monitoring and evaluation framework	Impact
Preferred data sources	National surveillance systems with laboratory confirmation where applicable
Other possible data sources	
Further information and related links	WHO/UNICEF joint reporting form on immunization. Geneva: World Health Organization; 2014 (http://www.who.int/entity/immunization/monitoring_surveillance/routine/reporting/WHO_UNICEF_JRF_EN.xls?ua=1, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

New cases of IHR-notifiable diseases and other notifiable diseases

Abbreviated name	New cases of IHR-notifiable diseases and other notifiable diseases
Indicator name	New cases of IHR-notifiable diseases and other notifiable diseases per year
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of new confirmed cases of IHR-notifiable diseases (immediately notifiable diseases) and other notifiable diseases (diseases that could cause serious public health impact and could spread rapidly internationally) per year.
Numerator	Number of new cases.
Denominator	
Disaggregation/ additional dimension	IHR-notifiable diseases: smallpox, poliomyelitis due to wild type poliovirus, human influenza caused by a new subtype, severe acute respiratory syndrome (SARS) Other notifiable diseases: cholera, pneumonic plague, yellow fever, viral haemorrhagic fevers, West Nile fever, other diseases that are of special national or regional concern (dengue fever, Rift Valley fever, meningococcal disease) Age, geographic location, sex, vaccination status
Method of measurement	Surveillance with immediate reporting.
Method of estimation	
Measurement frequency	Continuous
Monitoring and evaluation framework	Impact
Preferred data sources	National surveillance systems with laboratory confirmation where applicable
Other possible data sources	
Further information and related links	Decision instrument for the assessment and notification of events that may constitute a public health emergency of international concern. Agenda item 2, Intergovernmental Working Group on Revision of the International Health Regulations, 22 February 2005. Report of the Ad Hoc Expert Group on Annex 2. Geneva: World Health Organization; 2005 (http://apps.who.int/gb/ghs/pdf/IHR_IGWG2_ID4-en.pdf, accessed 20 July 2017).

HIV prevalence rate

Abbreviated name	HIV prevalence rate
Indicator name	HIV prevalence (per 1000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Percentage of people living with HIV. Prevalence measures the frequency of existing disease in a defined population at a specific time.
Numerator	Total number of people living with HIV.
Denominator	Total population.
Disaggregation/ additional dimension	General population age groups: 0–14 years (< 1, 1–4, 5–14 years), > 15 years (15–24, 15–49, 50+ years) Key population: age groups 15–24 years, 25+ years; men who have sex with men, sex workers, people who inject drugs, transgender people, prisoners New and relapse TB cases, ART eligibility, location, pregnancy status, sex, socioeconomic status HIV prevalence among TB patients
Method of measurement	General population surveys with HIV-testing in high-burden epidemics, HIV case-based surveillance and surveys determining proportions of HIV population undiagnosed, sample-based surveys with HIV-testing in key populations and size estimates of key populations, or modelled estimates using Spectrum, a UNAIDS-supported software tool. HIV prevalence can also be modelled using the Spectrum software.
Method of estimation	Modelling, using multiple inputs specific to the HIV epidemic context, is typically used to obtain an estimate of the HIV prevalence rate. UNAIDS supports most countries to produce estimates of HIV prevalence annually using Spectrum.
Measurement frequency	Survey schedule; Spectrum model estimates updated every year
Monitoring and evaluation framework	Impact
Preferred data sources	National population-based surveys in high-burden epidemics, otherwise modelled estimates
Other possible data sources	Routine facility information systems – facility-based surveillance system with key population estimates
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). Spectrum software. Glastonbury (CT): Avenir Health. (http://www.avenirhealth.org/software-spectrum.php, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017). WHO, CDC, UNAIDS, FHI 360. Biobehavioural survey guidelines for populations at risk for HIV. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO (http://apps.who.int/iris/bitstream/10665/258924/1/9789241513012-eng.pdf, accessed 19 December 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

HIV incidence rate

Abbreviated name	HIV incidence rate [SDG 3.3.1]
Indicator name	HIV incidence (per 1000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of new HIV infections per 1000 uninfected population. The incidence rate is the number of new cases per population at risk in a given time period.
Numerator	Number of new HIV infections.
Denominator	Uninfected population (which is the total population minus people living with HIV).
Disaggregation/ additional dimension	General population, Key populations (men who have sex with men, sex workers, people who inject drugs, transgender people, prisoners), Age groups (0–14, 15–24, 15–49, 50+ years), for key populations < 25, 25+ years), mode of transmission for children (including mother-to-child transmission), geographic location, sex.
Method of measurement	Longitudinal data on uninfected individuals are the best source of data but are rarely available for large populations. Special diagnostic tests in population-based surveys or from health facilities can be used to obtain data on HIV incidence but results must be nationally-representative and adjusted for performance of the diagnostic tests. Most countries will rely on modelled estimates using Spectrum, a UNAIDS-supported software tool. To calculate the uninfected population per 1000, the estimate of the number of people living with HIV is subtracted from the previous year's population estimates produced by the United Nations Population Division.
Method of estimation	Modelling is often used to obtain an estimate of new infections.
Measurement frequency	Survey schedule; Spectrum model estimates updated every year
Monitoring and evaluation framework	Impact
Preferred data sources	National population-based survey or key population survey with HIV incidence-testing, Spectrum modelling
Other possible data sources	Regular surveillance system among key populations
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). Spectrum software. Glastonbury (CT): Avenir Health. (http://www.avenirhealth.org/software-spectrum.php, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). The UNFPA Strategic Plan, 2014–2017. Report of the Executive Director. New York (NY): United Nations Population Fund; 2013 (http://www.unfpa.org/resources/strategic-plan-2014-2017, accessed 31 August 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Hepatitis B surface antigen prevalence

Abbreviated name	Hepatitis B surface antigen prevalence
Indicator name	Prevalence of hepatitis B surface antigen
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Prevalence of hepatitis B surface antigen (HBsAg)-positive, adjusted for sampling design.
Numerator	Number of survey participants with HBsAg positive test.
Denominator	Number in survey with HBsAg result.
Disaggregation/ additional dimension	Dependent on sampling methodology Exposure to hepatitis B virus (HBV) birth dose (official records), exposure to HBV B3, place of residence
Method of measurement	The serosurvey sample should be drawn from the specific geographic region to be verified. For example if the purpose is to estimate national childhood HBV transmission (including mother-to-child transmission) then the sampling should be geographically representative of the population. Convenience sampling is not appropriate. The sample size should be adequate to show with 95% confidence HBsAg prevalence of less than 1% with a precision of ± 0.5%. The target age is 5-years-old. Sampling 4–6 year olds may be appropriate. The serosurvey is cross sectional and therefore a point estimate time. The shorter time periods of data collection are therefore preferred. Data on HBV birth dose exposure and B3 completion should be drawn from official records. Where these are not available testing for HBsAb may be considered for the serosurvey. This is less preferable as it is more costly, but can also be done in addition. Specimen collection and transportation should be appropriate to minimize bias though specimen degradation in rural and remote areas. Where possible, it is advantageous to collect blood specimens for ELISA laboratory testing because the accuracy (sensitivity and specificity) is higher than for rapid tests. However in some locations only rapid tests will be available hence test selection is resource dependent. This should be considered in designing overall study methodology. When an appropriate sampling strategy and size are used and quality testing assays and laboratory procedures are employed, the HBsAg prevalence in the serosurvey should be representative of the incidence of childhood HBV transmission in the specific geographic region (or country) in this age group.
Method of estimation	HBsAg is the most important input into estimation of Hepatitis B incidence which is defined as number of new hepatitis B infections per 100 000 population in a given year. Statistical modelling is used to make such estimates.
Measurement frequency	Intermittent, dependent on population seroprevalence and infant HBV vaccination coverage
Monitoring and evaluation framework	Impact
Preferred data sources	Serosurvey
Other possible data sources	Routine facility information systems – collecting HBV vaccine coverage data including the percentage of newborn infants given the first dose (HepB0) within 24 hours of birth and the percentage of infants having received three doses of hepatitis B vaccine (HepB3)
Further information and related links	Documenting the Impact of Hepatitis B Immunization: best practices for conducting a serosurvey. Geneva: World Health Organization; 2011 (http://whqlibdoc.who.int/hq/2011/WHO_IVB_11.08_eng.pdf, accessed 20 July 2017). Hepatitis B Control Through Immunization: a Reference Guide. Regional Office for the Western Pacific: World Health Organization; 2014 (http://iris.wpro.who.int/bitstream/10665.1/10820/3/9789290616696_eng.pdf, accessed 20 July 2017). Sample design and procedures for Hepatitis B immunization surveys: A companion to the WHO cluster survey reference manual. Geneva: World Health Organization; 2012 (http://whqlibdoc.who.int/hq/2011/WHO_IVB_11.12_eng.pdf, accessed 20 July 2017).

Hepatitis B incidence

Abbreviated name	Hepatitis B incidence [SDG 3.3.4]
Indicator name	Estimated number of new hepatitis B infections per 100 000 population in a given year
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	The number of new hepatitis B infections per 100 000 population in a given year is estimated from the prevalence of total antibodies against hepatitis B core antigen (Total anti-HBc) and hepatitis B surface antigen (HBsAg) positive among children 5 years of age, adjusted for sampling design.
Numerator	Number of survey participants with Total anti-HBc and HBsAg positive test.
Denominator	Number in survey with Total anti-Hc/HBsAg result.
Disaggregation/ additional dimension	Dependent on sampling methodology. Exposure to the birth dose hepatitis B vaccine (official records), exposure to three doses of hepatitis B vaccine, place of residence
Method of measurement	Total anti-HBc reflect cumulated incidence in the first five years of life while HBsAg reflect chronic infections that may evolve towards chronic liver diseases The sample of the serological survey must be drawn from the specific geographic region to be verified. For example if the purpose is to estimate national transmission of HBV (including mother-to-child transmission) then the sampling should be geographically representative of the population. Convenience sampling is not appropriate. The sample size should be adequate to show with 95% confidence HBsAg prevalence of less than 1% with a precision of $\pm$ 0.5%. The target age is 5-years-old. Sampling 4– 6 year olds may be appropriate. The serosurvey is cross sectional and therefore a point estimate time. The shorter time periods of data collection are therefore preferred. Data on HBV birth dose exposure and B3 completion are drawn from official records. Where these are not available testing for HBsAb may be considered for the serosurvey. This is less preferable as it is more costly, but can also be done in addition. Specimen collection and transportation should be appropriate to minimize bias though specimen degradation in rural and remote areas. Where possible, it is advantageous to collect blood specimens for ELISA laboratory testing because the accuracy (sensitivity and specificity) is higher than for rapid tests. However in some locations only rapid tests will be available hence test selection is resource dependent. This should be considered in designing overall study methodology. When an appropriate sampling strategy and size are used and quality testing assays and laboratory procedures are employed, the HBsAg prevalence in the serosurvey should be representative of the incidence of childhood HBV transmission in the specific geographic region (or country) in this age group.
Method of estimation	
Measurement frequency	Intermittent, dependent on population seroprevalence of HBsAg before hepatitis B immunization and infant hepatitis B vaccination coverage
Monitoring and evaluation framework	Impact
Preferred data sources	Serosurvey
Other possible data sources	
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Sexually transmitted infections (STIs) incidence rate

Abbreviated name	Sexually transmitted infections (STIs) incidence rate
Indicator name	Sexually transmitted infections (STIs) incidence rate
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of new cases of reported STIs (syndromic or etiological reporting) in a specified time period (year).
Numerator	Number of new cases.
Denominator	Total population.
Disaggregation/ additional dimension	Age, key populations, sex, syndrome/pathogen (gonorrhoea, syphilis, urethral discharge, and genital ulcer disease)
Method of measurement	Laboratory confirmation is essential. If not available, the syndromic approach is used to estimate incidence, but data are much less reliable.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Routine facility information systems
Other possible data sources	
Further information and related links	A tool for strengthening STI surveillance at the country level. Geneva: World Health Organization; 2015 (http://who.int/reproductivehealth/publications/rtis/sti-surveillance/en/, accessed 3 October 2017). Global AIDS Monitoring 2017. Geneva: UNAIDS; 2016 (http://www.unaids.org/sites/default/files/media_asset/2017-Global-AIDS-Monitoring_en.pdf, accessed 3 October 2017). Global health sector strategy on Sexually Transmitted Infections, 2016–2021. Geneva: World Health Organization; 2016 (http://www.who.int/reproductivehealth/publications/rtis/ghss-stis/en/, accessed 3 October 2017). Global strategy for the prevention and control of sexually transmitted infections: 2006–2015. Geneva: World Health Organization; 2007 (http://whqlibdoc.who.int/publications/2007/9789241563475_eng.pdf?ua=1, accessed 20 July 2017). Report on global sexually transmitted infection surveillance 2015. Geneva: World Health Organization; 2016 (http://www.who.int/reproductivehealth/publications/rtis/stis-surveillance-2015/en/, accessed 3 October 2017).

Congenital syphilis rate

Abbreviated name	Congenital syphilis rate
Indicator name	Percentage of reported congenital syphilis cases (live births and stillbirths)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Congenital syphilis rate per 100 000 live births.
Numerator	Number of reported congenital syphilis cases (live births and still births) in the past 12 months x 100 000.
Denominator	Number of live births.
Disaggregation/ additional dimension	
Method of measurement	It is collected through routine information systems. It is important to indicate in the comment section the case definition of congenital syphilis used in your country.
Method of estimation	
Measurement frequency	Recorded daily and reported quarterly to national or sub-national level; Also consolidated annually
Monitoring and evaluation framework	Impact
Preferred data sources	Routine facility information system
Other possible data sources	
Further information and related links	Global guidance on criteria and processes for validation: elimination of mother-to-child transmission of HIV and syphilis. Geneva: World Health Organization; 2014 (http://www.who.int/reproductivehealth/publications/rtis/9789241505888/en/, accessed 3 October 2017). Investment case for eliminating mother-to-child transmission of syphilis: promoting better maternal and child health and stronger health systems. Geneva: World Health Organization; 2012 (http://www.who.int/reproductivehealth/publications/rtis/9789241504348/en/, accessed 3 October 2017). Methods for surveillance and monitoring of congenital syphilis elimination within existing systems. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44790/1/9789241503020_eng.pdf, accessed 3 October 2017). The global elimination of congenital syphilis: rationale and strategy for action. Geneva: World Health Organization; 2007 (http://www.who.int/reproductivehealth/publications/rtis/9789241595858/en/, accessed 3 October 2017). WHO guideline on syphilis screening and treatment for pregnant women. Geneva: World Health Organization; 2017 (http://www.who.int/reproductivehealth/publications/rtis/syphilis-ANC-screenandtreat-guidelines/en/, accessed on 6 October 2017).

TB incidence rate

Abbreviated name	TB incidence rate [SDG 3.3.2]
Indicator name	TB incidence (per 100 000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Estimated number of new and relapse TB cases (all forms of TB, including cases in people living with HIV) arising in a given year, expressed as a rate per 100 000 population.
Numerator	Number of new and relapse TB cases arising in a specified time period, usually one year.
Denominator	Estimated population in a specified time period, usually one year.
Disaggregation/ additional dimension	Age, HIV status, resistance to anti-TB drugs, sex
Method of measurement	TB notification data from high-quality surveillance systems in which underreporting is negligible, in the context of strong health systems so that under or over-diagnosis is also negligible. For countries in which these criteria are not yet met, indirect estimates are based on either: a) notification data and estimates of levels of underreporting and under-diagnosis; or b) results from national TB prevalence surveys; or c) information from national vital registration systems.
Method of estimation	Estimates of TB incidence are produced through a consultative and analytical process led by WHO and are published annually. Estimates for each country are derived using one or more of the following approaches, depending on available data: 1. incidence = case notifications/estimated proportion of cases detected and officially reported; 2. incidence = prevalence/duration of disease; 3. incidence = deaths/proportion of incident cases that die; 4. results from a capture-recapture study. Uncertainty bounds are provided in addition to best estimates. Details are available in the online technical appendix to the WHO global tuberculosis report (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017).
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Routine facility information system – high quality surveillance system for recording and reporting of TB cases
Other possible data sources	National population-based surveys with TB diagnostic testing, inventory study to measure under-reporting of TB cases which can inform adjustments to notification data, capture-recapture study
Further information and related links	Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

TB notification rate

Abbreviated name	TB notification rate
Indicator name	TB notification rate (per 100 000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of new and relapse TB cases notified in a given year, per 100 000 population. The term "notification" means that TB is diagnosed in a patient and is reported within the national surveillance system, and then on to WHO.
Numerator	Number of new and relapse cases of TB notified in a specified time period, usually one year.
Denominator	Estimated population in a specified time period, usually one year.
Disaggregation/ additional dimension	Age, health-care workers, place of residence, prisons, treatment history, type of TB (bacteriologically confirmed/clinically diagnosed; pulmonary/ extrapulmonary; drug-susceptible/drug resistant), sex
Method of measurement	The number of notified cases is collected as part of routine national TB surveillance. Annual case notifications are reported by countries to WHO using a web-based data collection system. The TB case notifications reported by countries follow the WHO recommendations on case definitions and recording and reporting; they are internationally comparable and there is no need for any adjustment.
Method of estimation	Not applicable.
Measurement frequency	Annual
Monitoring and evaluation framework	Output
Preferred data sources	Routine facility information system – high quality surveillance system for recording and reporting of TB cases
Other possible data sources	
Further information and related links	Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Malaria parasite prevalence among children aged 6–59 months

Abbreviated name	Malaria parasite prevalence among children aged 6–59 months
Indicator name	Malaria parasite prevalence among children aged 6–59 months
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Percentage of children aged 6–59 months in the population with malaria parasites in blood.
Numerator	Number of children aged 6—59 months in the population with malaria parasites in blood.
Denominator	Total number of children aged 6—59 months tested for malaria parasites by rapid diagnostic test or microscopy.
Disaggregation/ additional dimension	Age, place of residence, season (year and month), sex
Method of measurement	Household survey with rapid diagnostic test or microscopy applied to all children aged 6—59 months.
Method of estimation	
Measurement frequency	Every 2—5 years depending on epidemiology and intervention intensity
Monitoring and evaluation framework	Impact
Preferred data sources	National population-based surveys with parasite prevalence testing in blood
Other possible data sources	
Further information and related links	Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Roll Back Malaria Partnership/WHO. Disease surveillance for malaria control: an operations manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Malaria incidence rate

Abbreviated name	Malaria incidence rate [SDG 3.3.3]
Indicator name	Malaria incidence rate (per 1000 population)
Domain	Health status
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Number of confirmed reported malaria cases per 1000 persons per year.
Numerator	Number of suspected malaria cases confirmed by either microscopy or rapid diagnostic test.
Denominator	Population at risk (number of people living in areas where malaria transmission occurs).
Disaggregation/ additional dimension	Age, place of residence, season (year and month)
Method of measurement	Confirmed by microscopy or rapid diagnostics test. *Microscopy:* The number of cases confirmed by microscopy, including both inpatients and outpatients of all ages. Also includes cases detected by both active and passive case detection, but excludes cases detected in the community. *Rapid diagnostic tests:* The number of cases confirmed by rapid diagnostic tests, including both inpatients and outpatients of all ages. Also includes cases detected by both active and passive case detection, but excludes cases that are also confirmed by microscopy or that are detected and confirmed by community-based programmes.
Method of estimation	WHO compiles data on reported confirmed cases of malaria, submitted by the national malaria control programmes. The denominator is estimated, using risk mapping and population data.
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Routine facility reporting system – surveillance systems
Other possible data sources	
Further information and related links	Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Roll Back Malaria Partnership/WHO. Disease surveillance for malaria control: an operations manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Cancer incidence, by type of cancer

Abbreviated name	Cancer incidence, by type of cancer
Indicator name	Cancer incidence rate, by type of cancer (per 100 000 population)
Domain	Health status
Subdomain	NCDs and nutrition
Associated terms	Morbidity
Definition	Number of new cancers of a specific site/type occurring per 100 000 population.
Numerator	Number of new cancer cases diagnosed in a specific year. This may include multiple primary cancers occurring in one patient. The primary site reported is the site of origin and not the metastatic site. In general, the incidence rate would not include recurrences.
Denominator	The at-risk population for the given category of cancer. The population used depends on the rate to be calculated. For cancer sites that occur only in one sex, the sex-specific population (e.g. females for cervical cancer) is used.
Disaggregation/ additional dimension	Type (leading cancers) – e.g. breast, cervix, colon, liver, lung, prostate, stomach Age, place of residence, sex, socioeconomic status
Method of measurement	Cancer registries.
Method of estimation	(Number of new cancer cases diagnosed in a specific year)/(at-risk population for that category) x 100 000. If cancer registries are incomplete, adjustments need to be made.
Measurement frequency	Annual
Monitoring and evaluation framework	Impact
Preferred data sources	Population-based cancer registries which collect and classify information on all new cases of cancer in a defined population
Other possible data sources	
Further information and related links	Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. WHA66.10, Sixty-sixth World Health Assembly, 27 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). WHO guidelines for screening and treatment of precancerous lesions of cervical cancer prevention. Geneva: World Health Organization; 2013 (http://www.who.int/reproductivehealth/publications/cancers/screening_and_treatment_of_precancerous_lesions/en/, accessed 31 August 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Risk factors indicators

Nutrition

- Exclusive breastfeeding rate 0–5 months of age
- Early initiation of breastfeeding
- Incidence of low birth weight among newborns
- Children under 5 years who are stunted [SDG 2.2.1]
- Children under 5 years who are wasted [SDG 2.2.2]
- Children aged under 5 years who are overweight [SDG 2.2.2]
- Anaemia prevalence in children
- Anaemia prevalence in women of reproductive age *(Also: severe anaemia)*

Infections

- Prevention of HIV in key populations

Environmental risk factors

- Population using safely managed drinking-water services [SDG 6.1.1]
- Population using safely managed sanitation services [SDG 6.2.1a/6.2.1b (forthcoming)]
  (Also: population with handwashing facility with soap and water)
- Population with prirmary reliance on clean fuels and technologies [SDG 7.1.2]
- Air pollution level in cities [SDG 11.6.2]

Noncommunicable diseases

- Total alcohol per capita (age 15+ years) consumption [SDG 3.5.2]
- Tobacco use among persons aged 15+ years [SDG 3.a.1] *(Also: adolescents)*
- Raised blood pressure among adults
- Overweight and obesity in adults *(Also: school-age children and adolescents)*
- Raised blood glucose/diabetes among adults
- Salt intake
- Insufficient physical activity in adults *(Also: adolescents)*

Injuries/harmful traditional practices

- Intimate partner violence prevalence [SDG 5.2.1]
- Non-partner sexual violence prevalence [SDG 5.2.2]
- Prevalence of female genital mutilation/cutting [SDG 5.3.2]
- Sexual violence against children [SDG 16.2.3]
- Early marriage [SDG 5.3.1]
- Frequency rates of occupational injuries [SDG 8.8.1]

Exclusive breastfeeding rate 0–5 months of age

Abbreviated name	Exclusive breastfeeding rate 0–5 months of age
Indicator name	Exclusive breastfeeding rate in infants 0–5 months of age
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of infants 0–5 months of age (<6 months) who are fed exclusively with breast milk.
Numerator	Number of infants 0—5 months of age who are exclusively breastfed.
Denominator	Total number of infants 0—5 months of age surveyed.
Disaggregation/ additional dimension	Place of residence, sex, socio-economic status
Method of measurement	Percentage of infants 0–5 months of age who received only breast milk on the previous day = (infants 0–5 months of age who received only breast milk during the previous day/infants 0–5 months of age) x 100. Current status data are used. Vitamins and minerals drops or medicines are not counted. DHS and MICS include questions on liquids and foods given the previous day to find out if the child is being exclusively breastfed.
Method of estimation	WHO and UNICEF jointly collect data on infant and young child feeding, pooling information from national surveys. The WHO Programme of Nutrition, Physical Activity and Obesity, at the Regional Office for Europe compiles country information on exclusive breastfeeding independently. Note, many developed country data refer to exclusive breastfeeding at 6 months, which provides lower estimates than the standard measure of exclusive breastfeeding averaged over the first six months. The two sources have been combined to display all available data on exclusive breastfeeding. Predominant type of statistics: adjusted.
Measurement frequency	Every 3—5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys, specific population-based surveys
Other possible data sources	
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Every newborn: an action plan to end preventable deaths. Geneva: World Health Organization; 2014 (http://www.everynewborn.org/Documents/Full-action-plan-EN.pdf, accessed 20 July 2017). Indicators for assessing infant and young child feeding practices. Geneva: World Health Organization; 2008 (http://whqlibdoc.who.int/publications/2008/9789241596664_eng.pdf, accessed 20 July 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Early initiation of breastfeeding
Indicator name	Early initiation of breastfeeding
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of newborns breastfed within 1 hour of birth in a specified time period.
Numerator	Number of newborns breastfed within 1 hour of birth.
Denominator	Number of live births in a specified time period.
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status
Method of measurement	DHS and MICS include questions on the timing of the initiation of breastfeeding.
Method of estimation	UNICEF maintains a global database (http://data.unicef.org/nutrition/iycf , accessed 20 July 2017).
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	
Further information and related links	Indicators for assessing infant and young child feeding practices. Geneva: World Health Organization; 2008 (http://whqlibdoc.who.int/publications/2008/9789241596664_eng.pdf, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Incidence of low birth weight among newborns

Abbreviated name	Incidence of low birth weight among newborns
Indicator name	Incidence of low birth weight among newborns
Domain	Risk factors
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Nutrition
Definition	Percentage of live births that weigh less than 2500 g.
Numerator	Number of live-born neonates with weight less than 2500 g at birth.
Denominator	Number of live births.
Disaggregation/ additional dimension	Place of residence, preterm status, socioeconomic status
Method of measurement	Delivery registers (hospital management and information systems – HMIS). This method provides data on the incidence of low birth weight among newborns delivered in health institutions. Household surveys which collect data on birth weight (recalled by mother) and relative size of the newborn at birth allow for an adjusted value even where many infants are not weighed at birth.
Method of estimation	The relative size at birth and recalled birth-weight data are used to estimate incidence. UNICEF maintains a global database in which adjustments are made using survey data (mainly DHS and MICS) and administrative estimates are used where the percentage of weighed newborns is high.
Measurement frequency	Continuous
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys, routine facility information systems
Other possible data sources	Routine facility information systems
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Organisation for Economic Co-operation and Development. Health at a Glance 2013: OECD Indicators, Paris: OECD Publishing; 2013 (http://dx.doi.org/10.1787/health_glance-2013-en, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Children under 5 years who are stunted [SDG 2.2.1]
Indicator name	Children under 5 years who are stunted (moderate and severe)
Domain	Risk factors/health status
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of stunted (moderate and severe) children aged 0–59 months (moderate = height-for-age below -2 standard deviations from the WHO Child Growth Standards median; severe = height-for-age below -3 standard deviations from the WHO Child Growth Standards median).
Numerator	Number of children aged 0–59 months who are stunted.
Denominator	Total number of children aged 0–59 months who were measured.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status
Method of measurement	Percentage of children aged < 5 years stunted for age = (number of children aged 0–59 months whose z-score falls below -2 standard deviations from the median height-for-age of the WHO Child Growth Standards/total number of children aged 0–59 months who were measured) x 100. Children's weight and height are measured using standard equipment and methods (e.g. children younger than 24 months are measured lying down, while standing height is measured in children aged 24 months and older).
Method of estimation	WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that fulfil a set of criteria. Data are checked for validity and consistency and raw data-sets are analysed according to 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 pre-school children are presented using z-scores based on the WHO Child Growth Standards. Predominant type of statistics: adjusted.
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based nutrition surveys
Other possible data sources	National population-based surveys with nutrition modules, national surveillance systems
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Decision WHA67(9). Maternal, infant and young child nutrition. In: Sixty-seventh World Health Assembly, Geneva, 19-24 May 2014. Resolutions and decisions, annexes. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67-REC1/A67_2014_REC1-en.pdf, page 62, accessed 20 July 2017). Document A67/15. Maternal, infant and young child nutrition. The Global Strategy and the Comprehensive Implementation Plan. Report by the Secretariat. Sixty-seventh World Health Assembly, Geneva, 19–24 May 2014. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_15-en.pdf, accessed 20 July 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. Geneva: World Health Organization; 1995 (WHO Technical Report Series, No. 854). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO child growth standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva: World Health Organization; 2006 (http://www.who.int/childgrowth/standards/technical_report/en/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Children under 5 years who are wasted

Abbreviated name	Children under 5 years who are wasted [SDG 2.2.2]
Indicator name	Children under 5 years who are wasted (moderate and severe)
Domain	Risk factors/health status
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of wasted (moderate and severe) children aged 0–59 months (moderate = weight-for-height below -2 standard deviations of the WHO Child Growth Standards median; severe = weight-for-height below -3 standard deviations of the WHO Child Growth Standards median).
Numerator	Number of children aged 0–59 months who are wasted.
Denominator	Total number of children aged 0–59 months.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status
Method of measurement	Percentage of children aged < 5 years wasted = (number of children aged 0–59 months whose z-score falls below -2 standard deviations from the median weight-for-height of the WHO Child Growth Standards/total number of children aged 0–59 months who were measured) x 100. Children's weight and height are measured using standard equipment and methods (e.g. children under 24 months are measured lying down, while standing height is measured in children aged 24 months and older.
Method of estimation	WHO maintains the Global Database on Child Growth and Malnutrition, which includes population-based surveys that fulfil a set of criteria. Data are checked for validity and consistency and raw data sets are analysed according to 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 BMI-for-age, in pre-school 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 workflow – are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis M, Blössner M).
Measurement frequency	Every 3—5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based nutrition surveys
Other possible data sources	National population-based surveys with nutrition modules, national surveillance systems
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Countdown to 2015 decade report (2000—2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). de Onis M, Blössner M. The World Health Organization Global Database on Child Growth and Malnutrition: methodology and applications. Int J Epidemiol 2003;32(4):518-26. Decision WHA67(9). Maternal, infant and young child nutrition. In: Sixty-seventh World Health Assembly, Geneva, 19-24 May 2014. Resolutions and decisions, annexes. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67-REC1/A67_2014_REC1-en.pdf, page 62, accessed 20 July 2017). Document A67/15. Maternal, infant and young child nutrition. The Global Strategy and the Comprehensive Implementation Plan. Report by the Secretariat. Sixty-seventh World Health Assembly, Geneva, 19—24 May 2014. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_15-en.pdf, accessed 20 July 2017). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. Geneva: World Health Organization; 1995 (WHO Technical Report Series, No. 854). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO child growth standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva: World Health Organization; 2006 (http://www.who.int/childgrowth/standards/technical_report/en/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Abbreviated name	Children aged under 5 years who are overweight [SDG 2.2.2]
Indicator name	Children aged under 5 years who are overweight
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Prevalence of weight-for-height in children aged 0–59 months defined as above +2 standard deviations of the WHO Child Growth Standards median.
Numerator	Number of children aged 0–59 months who are overweight.
Denominator	Total number of children aged 0–59 months who were measured.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status
Method of measurement	Percentage of children aged < 5 years who are overweight for age = (number of children aged 0–59 months whose z-score is over two standard deviations above the median weight-for-height of the WHO Child Growth Standards/total number of children aged 0–59 months who were measured) x 100. Children's weight and height are measured using standard technology (e.g. children under 24 months are measured lying down, while standing height is measured in 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 fulfil a set of criteria. Data are checked for validity and consistency and raw data-sets are analysed according to 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 BMI-for-age in pre-school 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 workflow – are described in a paper published in 2003 in the International Journal of Epidemiology (de Onis M, Blössner M). Predominant type of statistics: adjusted.
Measurement frequency	Every 3—5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based nutrition surveys
Other possible data sources	National population-based surveys with nutrition modules, national surveillance systems
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). de Onis M, Blössner M. The World Health Organization Global Database on Child Growth and Malnutrition: methodology and applications. Int J Epidemiol 2003;32(4):518-26. Decision WHA67(9). Maternal, infant and young child nutrition. In: Sixty-seventh World Health Assembly, Geneva, 19-24 May 2014. Resolutions and decisions, annexes. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67-REC1/A67_2014_REC1-en.pdf, page 62, accessed 20 July 2017). Document A67/15. Maternal, infant and young child nutrition. The Global Strategy and the Comprehensive Implementation Plan. Report by the Secretariat. Sixty-seventh World Health Assembly, Geneva, 19–24 May 2014. Geneva: World Health Organization; 2014 (http://apps.who.int/gb/ebwha/pdf_files/WHA67/A67_15-en.pdf, accessed 20 July 2017). Draft comprehensive global monitoring framework and targets for the prevention and control of noncommunicable diseases, including a set of indicators. Agenda item A66/8, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_8-en.pdf?ua=1, accessed 20 July 2017). Organisation for Economic Co-operation and Development. Health at a Glance 2013: OECD Indicators, Paris: OECD Publishing; 2013 (http://dx.doi.org/10.1787/health_glance-2013-en, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO child growth standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. Geneva: World Health Organization; 2006 (http://www.who.int/childgrowth/standards/technical_report/en/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Anaemia prevalence in children

Abbreviated name	Anaemia prevalence in children
Indicator name	Prevalence of anaemia in children aged 6–59 months
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of children aged 6—59 months with a haemoglobin concentration of less than 110 g/L, adjusted for altitude.
Numerator	Number of children aged 6—59 months with a haemoglobin concentration of less than 110 g/L, adjusted for altitude.
Denominator	Total number of children aged 6—59 months who had haemoglobin concentration assessed during the survey.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status *Also: haemoglobin levels less than 70 g/L (severe anaemia)*
Method of measurement	The anaemia status of children is assessed using blood haemoglobin concentration. In surveys, blood haemoglobin concentrations are typically measured using the direct cyanmethemoglobin method in a laboratory or with a portable, battery-operated, haemoglobin photometer in the field that uses the azide-methaemoglobin method. In the cyanmethemoglobin method, a fixed quantity of blood is diluted with a reagent and haemoglobin concentration is determined after a fixed time interval in an accurate, well calibrated photometer. The principle of this method is based on the conversion of hemoglobin to cyanmethemoglobin by the addition of potassium cyanide and ferricyanide whose absorbance is measured at 540nm in a colorimeter or spectrophotometer against a standard solution. The cyanmethemoglobin measurement is the reference laboratory method for the quantitative determination of haemoglobin and is used for comparison and standardization of other methods. A portable photometer system may consist of disposable microcuvettes containing reagent in dry form and a single purpose designed photometer. The reaction in the microcuvette is a modified azide-methaemoglobinn reaction. Sodium deoxycholate haemolyses erythrocytes and haemoglobin is released. Sodium nitrite converts haemoglobin to methaemoglobin which, together with sodium azide, gives azidemethaemoglobin. The absorbance is measured at two wavelengths (570 nm and 880 nm). This methodology of haemoglobin determination has been shown to be stable and durable in field settings.
Method of estimation	WHO estimates haemoglobin distributions by country and year using a Bayesian hierarchical mixture model. This model systematically addressed missing data, non-linear time trends, and representativeness of data sources. Full details on statistical methods may be found here: Global, regional, and national trends in haemoglobin concentration and prevalence of total and severe anaemia in children and pregnant and non-pregnant women for 1995–2011: a systematic analysis of population-representative data (Stevens et al, 2013).
Measurement frequency	Every 3—5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity. Vitamin and Mineral Nutrition Information System. Geneva: World Health Organization; 2011 (http://www.who.int/vmnis/indicators/haemoglobin.pdf, accessed 20 July 2017). Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Roll Back Malaria Partnership/WHO. Disease surveillance for malaria control: an operations manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Anaemia prevalence in women of reproductive age

Abbreviated name	Anaemia prevalence in women of reproductive age *(Also: severe anaemia)*
Indicator name	Prevalence of anaemia in women aged 15–49, by age and pregnancy status
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Nutrition
Definition	Percentage of women aged 15–49 years with a haemoglobin concentration less than 120 g/L for non-pregnant women and lactating women, and less than 110 g/L for pregnant women, adjusted for altitude and smoking.
Numerator	Number of women aged 15–49 years with haemoglobin concentration below the indicated cut-off, adjusted for altitude and smoking.
Denominator	Total number of women aged 15–49 years with haemoglobin concentration assessed during a specified period.
Disaggregation/ additional dimension	Age, place of residence, reproductive status (pregnant, lactating, non-pregnant), socioeconomic status *Also: Severe anaemia (defined as haemoglobin levels less than 80 g/L for non-pregnant women and lactating women, and less than 70 g/L for pregnant women)*
Method of measurement	The anaemia status of women of reproductive age is assessed using blood haemoglobin concentration. In surveys, blood haemoglobin concentrations are typically measured using the direct cyanmethemoglobin method in a laboratory or with a portable, battery-operated, haemoglobin photometer in the field that uses the azide-methaemoglobin method. In the cyanmethemoglobin method, a fixed quantity of blood is diluted with a reagent and haemoglobin concentration is determined after a fixed time interval in an accurate, well calibrated photometer. The principle of this method is based on the conversion of hemoglobin to cyanmethemoglobin by the addition of potassium cyanide and ferricyanide whose absorbance is measured at 540 nm in a colorimeter or spectrophotometer against a standard solution. The cyanmethemoglobin measurement is the reference laboratory method for the quantitative determination of haemoglobin and is used for comparison and standardization of other methods. A portable photometer system may consist of disposable microcuvettes containing reagent in dry form and a single purpose designed photometer. The reaction in the microcuvette is a modified azide-methaemoglobinn reaction. Sodium deoxycholate haemolyses erythrocytes and haemoglobin is released. Sodium nitrite converts haemoglobin to methaemoglobin which, together with sodium azide, gives azidemethaemoglobin. The absorbance is measured at two wavelengths (570 nm and 880 nm). This methodology of haemoglobin determination has been shown to be stable and durable in field settings.
Method of estimation	WHO estimates haemoglobin distributions by country and year using a Bayesian hierarchical mixture model. This model systematically addressed missing data, non-linear time trends, and representativeness of data sources. Full details on statistical methods may be found here: Global, regional, and national trends in haemoglobin concentration and prevalence of total and severe anaemia in children and pregnant and non-pregnant women for 1995–2011: a systematic analysis of population-representative data (Stevens et al, 2013).
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	
Further information and related links	A draft framework for the global monitoring of the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition. Informal Consultation with Member States and UN Agencies on a Proposed Set of Indicators for the Global Monitoring Framework for Maternal, Infant and Young Child Nutrition, 30 September to 1 October 2013. Geneva: World Health Organization; 2013 (http://www.who.int/nutrition/events/2013_consultation_indicators_globalmonitoringframework_WHO_MIYCN.pdf, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity. Vitamin and Mineral Nutrition Information System. Geneva: World Health Organization; 2011 (http://www.who.int/vmnis/indicators/haemoglobin.pdf, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Prevention of HIV in key populations
Indicator name	Protection against HIV at last high risk contact
Domain	Risk factors
Subdomain	Infectious disease
Associated terms	Infections
Definition	*Sex workers:* % reporting condom use with most recent client. *Men who have sex with men:* % reporting condom use at last anal sex with a male partner. *Injection drug users*: needles/syringes distributed per person. *General population:* % of women and men who had more than one partner in the past 12 months who used a condom during their last sexual intercourse.
Numerator	
Denominator	
Disaggregation/ additional dimension	Age (15–24, 15–49 years), sex Sex workers: by sex (F/M/transgender) age (< 25/25+ years) Men who have sex with men: age (< 25/25+ years) People who inject drugs: sex, age (< 25/25+ years)
Method of measurement	Population-based surveys for general population; Surveys targeting key populations such as IBBS.
Method of estimation	
Measurement frequency	
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	
Further information and related links	The Demographic and Health Surveys Program. Washington (DC): United States Agency for International Development (http://www.dhsprogram.com/, accessed 20 July 2017). WHO, CDC, UNAIDS, FHI 360. Biobehavioural survey guidelines for populations at risk for HIV. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO (http://apps.who.int/iris/bitstream/10665/258924/1/9789241513012-eng.pdf, accessed 19 December 2017).

Abbreviated name	Population using safely managed drinking-water services [SDG 6.1.1]
Indicator name	Proportion of population using safely managed drinking-water services
Domain	Risk factors
Subdomain	Environment
Associated terms	Environmental risk factors
Definition	Population using an improved drinking water source (piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tube wells; protected dug wells; protected springs, rainwater, packaged or delivered water) which is located on premises, available when needed, and free of faecal and priority chemical contamination.
Numerator	Population using safely managed drinking-water services.
Denominator	Total population.
Disaggregation/ additional dimension	Place of residence (urban/rural), socioeconomic status (wealth, affordability etc.)
Method of measurement	The indicator is computed as the ratio of the number of people who use a safely managed drinking-water service, urban and rural, expressed as a percentage. Data from household surveys or censuses provide information on the types of basic drinking-water sources listed above. Such data will be combined with water quality data from direct testing of water quality at the household level as well as data from administrative records or regulatory frameworks for various aspects of safe management. The percentage of the total population using a safely managed drinking-water service is the population-weighted average of the previous two numbers. Access to water and sanitation are considered core socioeconomic and health indicators and key determinants of, inter alia, child survival, maternal and children's health, family well-being and economic productivity. Additionally, the use of drinking-water sources and sanitation facilities is part of the wealth index used by household surveys to divide the population into wealth quintiles. As a result, most nationally representative household surveys include information about basic water and sanitation. The survey questions and response categories pertaining to access to basic drinking-water sources are fully harmonized between DHS and MICS and are adopted from the standard questionnaire promoted for inclusion in survey instruments by the WHO/UNICEF Joint Monitoring Programme on Water Supply and Sanitation. This can be accessed via http://www.wssinfo.org. Administrative data on faecal and chemical contamination, and regulation by appropriate authorities, will be collected by JMP through consultation with the government departments responsible for drinking-water supply and regulation.
Method of estimation	The JMP assembles, reviews and assesses data collected by national statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the population using improved drinking water supplies, as well as the proportion of improved supplies which are located on premises, available when needed, and free from contamination. Regression is restricted to the years 2000 to present. Since data on location, availability and quality are not generally available from the same datasets, the estimates resulting from independent regressions are combined. The indicator is calculated by taking the minimum of the three elements (location, availability, quality) and multiplying this by the estimate of the population using improved water supplies).
Measurement frequency	Biennial
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys, population census, data from administrative sources or regulatory frameworks
Other possible data sources	
Further information and related links	Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines. World Health Organization and United Nations Children's Fund; 2017 (https://www.unicef.org/publications/index_96611.html, accessed 20 July 2017). Safely managed drinking water – thematic report on drinking water 2017. World Health Organization and United Nations Children's Fund; 2017 (https://washdata.org/report/jmp-2017-tr-smdw, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WASH in the 2030 agenda: new global indicators for drinking water, sanitation and hygiene. World Health Organization and United Nations Children's Fund; 2017 (https://washdata.org/report/jmp-2017-wash-in-the-2030-agenda, accessed 11 August 2017).

Population using safely managed sanitation services

Abbreviated name	Population using safely managed sanitation services [SDG 6.2.1a/6.2.1b (forthcoming)] *(Also: population with handwashing facility with soap and water)*
Indicator name	Proportion of population using safely managed sanitation services
Domain	Risk factors
Subdomain	Environment
Associated terms	Environmental risk factors
Definition	Population using an improved sanitation facility (flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets) that is not shared with other households and where excreta are safely disposed of in situ or treated off site.
Numerator	Population using safely managed sanitation services.
Denominator	Total population.
Disaggregation/ additional dimension	Place of residence (urban/rural), socioeconomic status (wealth, affordability etc.) *Also: population with handwashing facility with soap and water* *Definition: population with basic handwashing materials in the home, including a handwashing facility, soap and water.* *Numerator: population with basic handwashing materials in the home.* *Denominator: total population.*
Method of measurement	*Sanitation:* The JMP assembles, reviews and assesses data collected by national statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the population using improved sanitation facilities, as well as the proportion of improved supplies which are shared by multiple households. Separate regressions are made of the proportion of sewage waste which received at least secondary treatment, and of the proportion of wastes from on-site systems which are transported off-site and receive at least secondary treatment. Regression is restricted to the years 2000 to present. Since data on use of sanitation facilities and treatment of faecal wastes are not generally available from the same datasets, the estimates resulting from independent regressions are combined. The indicator is calculated by multiplying the estimate of the population using sewer connections by the proportion of sewage treated, doing the same for on-site sanitation, and combining the two figures. *Handwashing:* Currently, weighted averages of national estimates are used for the global estimates as this is a new indicator. Estimation methods will be refined following improved population coverage of this indicator.
Method of estimation	*Sanitation:* The JMP assembles, reviews and assesses data collected by national statistics offices and other relevant institutions including sectoral authorities. Linear regression is used to provide estimates of the population using improved sanitation facilities, as well as the proportion of improved supplies which are shared by multiple households. Separate regressions are made of the proportion of sewage waste which received at least secondary treatment, and of the proportion of wastes from on-site systems which are transported off-site and receive at least secondary treatment. Regression is restricted to the years 2000 to present. Since data on use of sanitation facilities and treatment of faecal wastes are not generally available from the same datasets, the estimates resulting from independent regressions are combined. The indicator is calculated by multiplying the estimate of the population using sewer connections by the proportion of sewage treated, doing the same for on-site sanitation, and combining the two figures. *Handwashing:* Currently, weighted averages of national estimatesare used for the global estimates as this is a new indicator. Estimation methods will be refined following improved population coverage of this indicator.
Measurement frequency	Biennial
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys, population census, data from administrative sources or regulatory frameworks
Other possible data sources	
Further information and related links	Progress on drinking water, sanitation and hygiene: 2017 update and SDG baselines. World Health Organization and United Nations Children's Fund; 2017 (https://www.unicef.org/publications/index_96611.html, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). Thematic report on safely managed sanitation (forthcoming). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WASH in the 2030 agenda: new global indicators for drinking water, sanitation and hygiene. World Health Organization and United Nations Children's Fund; 2017 (https://washdata.org/report/jmp-2017-wash-in-the-2030-agenda, accessed 11 August 2017).

Population with prirmary reliance on clean fuels and technologies

Abbreviated name	Population with prirmary reliance on clean fuels and technologies [SDG 7.1.2]
Indicator name	Percentage of the population with primary reliance on clean fuels and technologies at the household level (household air pollution)
Domain	Risk factors
Subdomain	Environment
Associated terms	Environmental risk factors
Definition	Percentage of households/population with primary reliance on clean fuels and technologies for cooking/heating/lighting where clean is defined by the recommendations set forth in the WHO guidelines for indoor air quality: household fuel combustion.
Numerator	Number of households (population) with primary reliance on clean fuels and technologies for cooking/heating/lighting.
Denominator	Total number of households (population).
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status Fuel type, end use (i.e. cooking, heating, lighting)
Method of measurement	The indicator is calculated as the number of people using modern fuels and technologies divided by the total population, expressed as a percentage. Data on the use of fuels and technologies for different end uses (e.g. cooking, heating, lighting) are routinely collected at national and subnational levels in most countries using censuses and surveys. Currently, modern fuels exclude solid fuels and kerosene. For the purpose of estimating the health impacts, it is recommended to monitor the use of kerosene also as a separate category.
Method of estimation	The indicator is modelled with household survey data compiled by WHO. The information on cooking fuel use and cooking practices from more than 700 nationally representative data sources, such as those listed above, is used in combination with the most recent survey data available on heating and lighting fuels and technologies. Unless stated otherwise, estimates for cooking using modern fuels and technologies for the total (urban and rural) population for a given year were obtained separately using a multilevel model. The model accounts only for regions, countries and time as a spline function, and estimates were restricted to values ranging from zero to one. All analyses were conducted using STATA software (version 12, StataCorp LP, College Station, TX, USA). Estimates for countries with no available surveys were obtained as follows: When no information on the fuels and technologies use in the home was available for the country, the regional population-weighted mean was used. Note that this approach was also applied to Equatorial Guinea instead of the one used for high-income countries (see below); Countries classified as high-income with a Gross National Income (GNI) of more than US$ 12 616 per capita (The World Bank, http://data.worldbank.org/about/country-classifications, accessed 20 July 2017) are assumed to have made a complete transition to using modern fuels and technologies as the primary source of domestic energy for cooking and heating, and solid fuel use is reported to be less than 5%.
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys, population census
Other possible data sources	Other sources, including estimation and modelling
Further information and related links	Bonjour S, Adair-Rohani H, Wolf J, Bruce NG, Mehta S, Prüss-Ustün A et al. Solid fuel use for household cooking: country and regional estimates for 1980–2010. Environ Health Perspect. 2013;121(7):784–90). Indoor air quality guidelines: household fuel combustion. Geneva: World Health Organization; 2014 [in press] (http://www.who.int/indoorair/publications/household-fuel-combustion/en/, accessed 20 July 2017). Rehfuess E, Mehta S, Prüss-Üstün A. Assessing household solid fuel use: multiple implications for the Millennium Development Goals. Environ Health Perspect. 2006;114(3):373–8). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Air pollution level in cities

Abbreviated name	Air pollution level in cities [SDG 11.6.2]
Indicator name	Air pollution level in cities (particulate matter [PM2.5])
Domain	Risk factors
Subdomain	Environment
Associated terms	Environmental risk factors
Definition	The annual mean concentration of fine suspended particles of less than 2.5 microns in diameters, population-weighted for urban population in a country, expressed in microgram per cubic meter [ug/m3].
Numerator	
Denominator	
Disaggregation/ additional dimension	
Method of measurement	The mean annual concentration of fine suspended particles of less than 10 or 2.5 microns in diameters is a common measure of air pollution. The mean city concentration is based on daily measurements, or data which could be aggregated into annual means.
Method of estimation	The annual urban mean concentration of PM2.5 is estimated with improved modelling using data integration from satellite remote sensing, population estimates, topography and ground measurements.
Measurement frequency	Every 2 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National/subnational/monitoring reports and web sites containing measurements of PM10 or PM2.5 and relevant national agencies
Other possible data sources	Data from research projects/articles from peer reviewed journals; regional networks; development agencies; UN Agencies
Further information and related links	Ambient air pollution: a global assessment of exposure and burden of disease. Geneva: World Health Organization; 2016 (http://who.int/phe/publications/air-pollution-global-assessment/en/, accessed 20 July 2017). Exposure to ambient air pollution. In: Global Health Observatory [website]. Geneva: World Health Organization; 2017 (http://www.who.int/gho/phe/outdoor_air_pollution/exposure/en/, accessed 11 August 2017). Global urban air quality database, 2016 update. Geneva, World Health Organization; 2016 (http://www.who.int/phe/health_topics/outdoorair/databases/cities/en/, accessed 20 July 2017). Modelled Global Ambient Air Pollution estimates. Geneva, World Health Organization; 2017 (http://www.who.int/phe/health_topics/outdoorair/databases/modelled-estimates/en/, accessed 20 July 2017). Shaddick G, Thomas ML, Jobling A; Brauer M, van Donkelaar A, Burnett R et al. Data integration model for air quality: a hierarchical approach to the global estimation of exposures to ambient air pollution. Cornell University Library; 2016 (https://arxiv.org/abs/1609.00141, accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Total alcohol per capita (age 15+ years) consumption

Abbreviated name	Total alcohol per capita (age 15+ years) consumption [SDG 3.5.2]
Indicator name	Total alcohol per capita (age 15+ years) consumption
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Total alcohol per capita is the total amount (sum of recorded alcohol per capita three-year average and unrecorded alcohol per capita) of alcohol consumed per adult (15+ years) in a calendar year, in litres of pure alcohol. Recorded alcohol consumption refers to official statistics (production, import, export, and sales or taxation data), while unrecorded alcohol consumption refers to alcohol which is not taxed and is outside the usual system of government control. In circumstances in which the number of tourists per year is at least the number of inhabitants, tourist consumption is also taken into account and is deducted from a country's recorded alcohol per capita.
Numerator	Sum of recorded and unrecorded alcohol consumed in a population during a calendar year, in litres.
Denominator	Mid-year resident population aged 15+ for the same calendar year.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available
Method of measurement	*Recorded consumption:* Recorded alcohol per capita (15+ years) consumption of pure alcohol is calculated as the sum of beverage-specific alcohol consumption of pure alcohol (beer, wine, spirits, other) from different sources. The first priority in the decision tree is given to government statistics, the second are country-specific alcohol industry statistics in the public domain (Canadian, IWSR-International Wine and Spirit Research, OIV-International Organisation of Vine and Wine, Wine Institute, historically World Drink Trends), and third is the Food and Agriculture Organization of the United Nations' statistical database (FAOSTAT). For countries where the data source is FAOSTAT, unrecorded consumption may be included in the recorded consumption. *Unrecorded consumption:* The first priority in the decision tree is given to nationally representative empirical data, often from general population surveys in countries where alcohol is legal. The second priority are specific other empirical investigations, while the third is expert opinion.
Method of estimation	Sum of recorded and unrecorded alcohol consumed in a population during a calendar year.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey. Administrative reporting systems for recorded alcohol per capita, and survey data for unrecorded alcohol per capita. The priority of data sources for recorded alcohol per capita consumption should be given to government statistics on sales of alcoholic beverages during a calendar year or data on production, export and import of alcohol in different beverage categories. For countries where government data on sales or production are not available, the preferred data source would be country-specific and publicly available data from the private sector, including alcohol producers, or country-specific data from FAOSTAT which may also include estimates of unrecorded alcohol consumption. For main categories of alcoholic beverages, "beer" includes malt beers, "wine" includes wine made from grapes, "spirits" include all distilled beverages, and "other" includes one or several other alcoholic beverages – such as fermented beverages made from sorghum, maize, millet, rice, or cider, fruit wine, fortified wine, etc. Data sources for unrecorded alcohol consumption include survey data, FAOSTAT data, other data sources such as customs or police data, and expert opinion.
Other possible data sources	Data sets of FAO and United Nations Statistics Division *Recorded:* Government statistics or, alternatively, alcohol industry statistics in the public domain, FAOSTAT *Unrecorded:* Nationally representative empirical data or, alternatively, specific empirical investigations, expert opinion
Further information and related links	Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Global health risks: mortality and burden of disease attributable to selected major risks. Geneva: World Health Organization; 2009 (http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf, accessed 20 July 2017). Global strategy to reduce the harmful use of alcohol. Geneva: World Health Organization; 2010 (http://www.who.int/substance_abuse/alcstratenglishfinal.pdf?ua=1, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017). Rehm J, Baliunas D, Borges GL, Graham K, Irving H, Kehoe T et al. The relation between different dimensions of alcohol consumption and burden of disease – an overview. Addiction (Abingdon, England). 2010;105(5):817–843 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3306013/, accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Tobacco use among persons aged 15+ years

Abbreviated name	Tobacco use among persons aged 15+ years [SDG 3.a.1] *(Also: adolescents)*
Indicator name	Age-standardized prevalence of current tobacco use among persons aged 15+ years
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Age-standardized prevalence of current tobacco use among persons aged 15+ years. "Smoked tobacco products" includes cigarettes, cigarillos, cigars, cheroots, bidis, pipes, shisha (water pipes), roll-your-own tobacco, kreket, and any other form of tobacco that is consumed by smoking. "Smokeless tobacco" includes moist snuff, plug, creamy snuff, dry snuff, plug, dissolvables, gul, loose leaf, red tooth powder, snus, chimo, gutkha, khaini, gudakhu, zarda, quiwam, dohra, tuibur, nasway, naas/naswar, shammah, betel quid, toombak, pan (betel quid), iq'mik, mishri, tapkeer, tombol and any other tobacco product that is consumed by sniffing, holding in the mouth, or chewing. "Current use" means use at the time of the survey, whether daily use or occasional use.
Numerator	Number of current tobacco users aged 15+ years.
Denominator	Total population aged 15+ years.
Disaggregation/ additional dimension	Age, sex *Also: prevalence of current tobacco use among adolescents*
Method of measurement	Number of respondents aged 15+ years currently using any tobacco product (smoked or smokeless)/(number of survey respondents aged 15+ years) x 100.
Method of estimation	A statistical model based on a Bayesian negative binomial meta-regression is used to model prevalence of current tobacco smoking for each country, separately for men and women. A full description of the method is available as a peer-reviewed article in The Lancet, volume 385, No. 9972, p966–976 (2015). Once the age-and-sex-specific prevalence rates from national surveys are compiled into a dataset, the model is fitted to calculate trend estimates from the year 2000 to 2030. The model has two main components: (a) adjusting for missing indicators and age groups, and (b) generating an estimate of trends over time as well as the 95% credible interval around the estimate. Depending on the completeness of survey data from a particular country, the model at times makes use of data from other countries to fill information gaps. To fill data gaps, information is "borrowed" from countries in the same UN subregion. The resulting trend lines are used to derive estimates for single years, so that a number can be reported even if the country did not run a survey in that year. In order to make the results comparable between countries, the prevalence rates are age-standardized to the WHO Standard Population.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	
Further information and related links	FCTC/COP7(27) Decision. Contribution of the Conference of the Parties to achieving the noncommunicable disease global target on the reduction of tobacco use. In: Seventh session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control, 7–12 November 2016. Dehli: WHO Framework Convention on Tobacco Control; 2016 (http://www.who.int/fctc/cop/cop7/FCTC_COP7(27)_EN.pdf?ua=1, accessed 3 October 2017). FCTC/COP/7/4 Report. Contribution and impact of implementing the WHO FCTC on achieving the noncommunicable disease global target on reduction of tobacco use. Report of the Convention Secretariat and WHO. Geneva: WHO Framework Convention on Tobacco Control; 2016 (http://www.who.int/fctc/cop/cop6-16-tech-paper.pdf?ua=1, accessed 3 October 2017). Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). "Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017). Note that, while the NCD target concerns the population aged 15+, the NCD global monitoring framework indicator refers to the population aged 18+." Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). WHO FCTC Implementation Database. Geneva: World Health Organization; 2014 (http://apps.who.int/fctc/implementation/database/, accessed 3 October 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Abbreviated name	Raised blood pressure among adults
Indicator name	Age-standardized prevalence of raised blood pressure among persons aged 18+ years
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg), and mean systolic blood pressure.
Numerator	Number of respondents with systolic blood pressure ≥ 140mmHg or diastolic blood pressure ≥ 90mmHg.
Denominator	All survey respondents with a valid measurement.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available
Method of measurement	Three blood pressure measurements should be taken and the average systolic and diastolic readings of the second and third measures should be used in this calculation.
Method of estimation	(Number of respondents aged 18+years with systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg)/(number of survey respondents aged 18+ years) x 100.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey in which blood pressure was measured, not self-reported
Other possible data sources	Surveillance systems
Further information and related links	A global brief on hypertension: silent killer, global public health crisis. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/79059/1/WHO_DCO_WHD_2013.2_eng.pdf, accessed 20 July 2017). Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

Overweight and obesity in adults

Abbreviated name	Overweight and obesity in adults *(Also: school-age children and adolescents)*
Indicator name	Age-standardized prevalence of overweight and obesity in persons aged 18+ years
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Percentage of adults (18+ years) who are overweight (defined as having a BMI ≥ 25 kg/m^2) and obese (defined as having a BMI ≥ 30 kg/m^2).
Numerator	Number of respondents aged 18+ years who are overweight. Number of respondents aged 18+ years who are obese. BMI is calculated by dividing weight in kilograms by height in meters squared. Overweight is defined as having a BMI ≥ 25 kg/m^2 and obesity is defined as having a BMI ≥ 30 kg/m^2.
Denominator	All survey respondents with valid height and weight measurements.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available *Also: Overweight and obesity in children and adolescents* *Indicator name: Proportion of overweight and obesity in school-age children and adolescents 5–18 years* *Definition: prevalence of overweight in school-age children and adolescents is defined as the percentage of children aged 5-18 years with sex-specific BMI-for-age above +1 SD from the WHO 2007 reference median. Prevalence of obesity in school-age children and adolescents is defined as the percentage of children aged 5–18 years with sex-specific BMI-for-age above +2 SD from the WHO 2007 reference median.* *Numerator: Number of school-age children and adolescents (5–18 years) in the sample who are overweight (>+1SD) and obese (>+2 SD).* *Denominator: Total number of school-age children and adolescents (5–18 years) who were measured.* *Disaggregation: Age, sex, education level, maternal education, place of residence, socioeconomic status.*
Method of measurement	
Method of estimation	(Number of survey respondents aged 18+ years who are overweight)/(number of survey respondents aged 18+ years) x 100. (Number of survey respondents aged 18+ years who are obese)/(number of survey respondents aged 18+ years) x 100.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey in which height and weight were measured
Other possible data sources	
Further information and related links	de Onis M, Onyango AW, Borghi E, Siyam A, Nishida C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. Bull World Health Organ. 2007;85:660–7 (http://www.who.int/growthref/growthref_who_bull/en/, accessed 20 July 2017). Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

Abbreviated name	Raised blood glucose/diabetes among adults
Indicator name	Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years or on medication for raised blood glucose
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years or on medication for raised blood glucose (defined as fasting plasma glucose value ≥ 7.0 mmol/L (126 mg/dL) or on medication for raised blood glucose among adults aged 18+ years).
Numerator	Number of respondents aged 18+ years with fasting plasma glucose value ≥7.0 mmol/L (126 mg/dL) or on medication for raised blood glucose. Fasting blood glucose must be measured, not self-reported, and measurements must be taken after the person has fasted for at least eight hours.
Denominator	All survey respondents with a valid fasting plasma glucose measurement.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available
Method of measurement	
Method of estimation	(Number of respondents aged 18+ years with fasting plasma glucose value ≥ 7.0 mmol/L [126 mg/dL] or on medication for raised blood glucose)/ (number of survey respondents aged 18+ years) x 100.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey There are two main blood chemistry screening methods – dry and wet chemistry. Dry chemistry uses capillary blood taken from a finger and is used in a rapid diagnostic test. Wet chemistry uses a venous blood sample with a laboratory-based test. Either method is acceptable.
Other possible data sources	Surveillance systems
Further information and related links	Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Global report on diabetes. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/204871/1/9789241565257_eng.pdf?ua=1, accessed 11 August 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

Salt intake

Abbreviated name	Salt intake
Indicator name	Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Age-standardized mean population intake of salt (sodium chloride) per day in grams in persons aged 18+ years.
Numerator	The sum of sodium excretion in urine samples from all respondents aged 18+ years. The gold standard for estimating salt intake is through 24-hour urine collection. However, other methods such as spot urine and food frequency surveys may be more feasible to administer at the population level.
Denominator	All respondents of the survey aged 18+ years.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available
Method of measurement	
Method of estimation	Sum of sodium excretion in urine samples from all respondents aged 18+ years/number of survey respondents aged 18+ years.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	
Further information and related links	Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017). SHAKE the salt habit: the SHAKE technical package for salt reduction. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/250135/1/9789241511346-eng.pdf?ua=1, accessed 20 July 2017).

Abbreviated name	Insufficient physical activity in adults *(Also: adolescents)*
Indicator name	Age-standardized prevalence of insufficiently physically active persons aged 18+ years
Domain	Risk factors
Subdomain	NCDs and nutrition
Associated terms	Noncommunicable diseases
Definition	Age-standardized prevalence of insufficiently physically active persons aged 18+ years (percentage of adults aged 18+ years not meeting any of the following criteria: 150 minutes of moderate-intensity physical activity per week; 75 minutes of vigorous-intensity physical activity per week; an equivalent combination of moderate- and vigorous-intensity physical activity accumulating at least 600 metabolic equivalent minutes per week (minutes of physical activity can be accumulated over the course of a week but must be of a duration of at least 10 minutes). *Metabolic equivalent (MET) is the ratio of a person's working metabolic rate relative to the resting metabolic rate. One metabolic equivalent is defined as the energy cost of sitting quietly and is equivalent to a caloric consumption of 1 kcal/kg per hour. Physical activities are frequently classified by their intensity, using the metabolic equivalent as a reference.
Numerator	Number of respondents where all three of the following criteria are true: weekly minutes* of vigorous activity < 75 minutes; weekly minutes* of moderate activity < 150 minutes; weekly metabolic equivalent minutes** < 600. * Weekly minutes are calculated by multiplying the number of days on which vigorous/moderate activity is done by the number of minutes of vigorous/moderate activity per day. ** Weekly metabolic equivalent minutes are calculated by multiplying the weekly minutes of vigorous activity by 8 and the number of weekly minutes of moderate activity by 4 and then adding these two results together.
Denominator	All respondents of the survey aged 18+ years.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available *Also: prevalence of insufficiently physically active adolescents (defined as less than 60 minutes of moderate to vigorous intensity activity daily)*
Method of measurement	
Method of estimation	(Number of respondents aged 18+ years not meeting the aforementioned criteria for physical activity)/(number of survey respondents aged 18+ years) x 100.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	
Further information and related links	Follow-up to the political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Agenda item 13.1 & 13.2, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf, accessed 20 July 2017). Global recommendations on physical activity for health. Geneva: World Health Organization; 2010 (http://www.who.int/dietphysicalactivity/publications/9789241599979/en/, accessed 20 July 2017). Noncommunicable diseases global monitoring framework: Indicator Definitions and Specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

Intimate partner violence prevalence

Abbreviated name	Intimate partner violence prevalence [SDG 5.2.1]
Indicator name	Intimate partner violence prevalence
Domain	Risk factors
Subdomain	Injury and violence
Associated terms	Injuries
Definition	Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months. Note: Measurement and methodological efforts are underway to ensure that the more expansive definition of the SDG indicator above is reported on. Given the data available currently, estimates will focus on the following: "Proportion of women aged 15-49 subjected to physical and/or sexual violence by an intimate partner in the last 12 months".
Numerator	Total number of ever-partnered women aged 15 years and older (or aged 15–49) who reported having experienced physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months.
Denominator	Total number of ever-partnered women aged 15 years and older (or aged 15–49).
Disaggregation/ additional dimension	Age, geographic location, type of violence (physical, sexual, physical and/or sexual, psychological)
Method of measurement	Population-based surveys focused on violence against women or population-based surveys with special module on violence against women. There are a series of questions asked to women currently or previously in a partnership inquiring about experience of specific acts of physical and sexual violence and psychological abuse by their partner. These questions are ideally asked by specially trained interviewers in household surveys dedicated to measurement of violence against women.
Method of estimation	Lifetime and last 12 month rates of intimate partner violence are estimated by age group and region by pooling data from population-based studies in models that control for definition of physical or sexual violence, survey type, interviewer training, whether survey was on all women or only currently partnered women, whether study was national or subnational, and whether prevalence refers to lifetime exposure or past year only. Results weighted by population size and age distribution. Method of estimation of global and regional aggregates: results weighted by population size and age distribution. The combined 15–49 or 15–69 age group estimates for regional and global prevalence of intimate partner violence are based on a more complete dataset than the age-specific estimates. The combined 15–49 or 15–69 age group world estimate for WHO regions is based on the aggregated world estimate using weighting of GBD regions.
Measurement frequency	Every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys focused on violence against women
Other possible data sources	National population-based surveys that have a module on violence against women
Further information and related links	Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: World Health Organization; 2010 (http://www.who.int/gho/women_and_health/violence/en/, accessed 20 July 2017). Guidelines for producing statistics on violence against women – Statistical surveys. New York (NY): United Nations; 2014 (https://unstats.un.org/unsd/gender/docs/Guidelines_Statistics_VAW.pdf, accessed 20 July 2017). Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children. Geneva: World Health Organization; 2016 (http://www.who.int/violence_injury_prevention/publications/violence/PoA_violence/en/, accessed 21 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Non-partner sexual violence prevalence

Abbreviated name	Non-partner sexual violence prevalence [SDG 5.2.2]
Indicator name	Non-partner sexual violence prevalence
Domain	Risk factors
Subdomain	Injury and violence
Associated terms	Injuries
Definition	Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months *Note:* Measurement and methodological efforts are underway to ensure that the more expansive definition of the SDG indicator above is reported on. Given the data available currently, estimates will focus on the following: "Proportion of women aged 15-49 subjected to non-partner sexual violence in the past 12 months".
Numerator	Number of women and girls aged 15 years and older (or aged 15–49) who experience sexual violence by persons other than an intimate partner in the previous 12 months.
Denominator	Number of women and girls aged 15 years and older (or aged 15–49).
Disaggregation/ additional dimension	Age, geographic location, place of occurrence, type of sexual violence (intercourse, contact, non-contact)
Method of measurement	Population-based surveys focused on violence against women or population-based surveys with special module on violence against women.
Method of estimation	Lifetime and last 12 month rates of non-partner sexual violence are estimated by region by pooling data from population-based studies in models that control for interviewer training, whether study was national or subnational, and whether respondent was given a choice of multiple perpetrators as opposed to a single perpetrator.
Measurement frequency	Every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys focused on violence against women
Other possible data sources	National population-based surveys that have a module on violence against women
Further information and related links	Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children. Geneva: World Health Organization; 2016 (http://www.who.int/violence_injury_prevention/publications/violence/PoA_violence/en/, accessed 21 July 2017). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: World Health Organization; 2010 (http://www.who.int/gho/women_and_health/violence/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Prevalence of female genital mutilation/cutting

Abbreviated name	Prevalence of female genital mutilation/cutting [SDG 5.3.2]
Indicator name	Proportion of women and girls aged 15–49 who have undergone female genital mutilation/cutting (FGM/C)
Domain	Risk factors/harmful traditional practices
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Injuries/harmful traditional practices
Definition	Proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting.
Numerator	Number of girls and women aged 15–49 who have undergone female genital mutilation/cutting.
Denominator	Total number of girls and women aged 15–49 in the population.
Disaggregation/ additional dimension	Age, education, ethnicity, geographic location, household wealth, place of residence
Method of measurement	Population-based surveys with a module on FGM. Prevalence is based on self-reporting among female respondents of reproductive age (15–49 years).
Method of estimation	Number of girls and women aged 15–49 who have undergone FGM/C divided by the total number of girls and women aged 15–49 in the population x 100.
Measurement frequency	Every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	
Further information and related links	Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. . New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2013 (https://www.unicef.org/publications/index_69875.html, accessed 3 October 2017). Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) data portal. Geneva: World Health Organization; 2017 (http://apps.who.int/gho/data/node.gswcah, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Sexual violence against children [SDG 16.2.3]
Indicator name	Proportion of young women and men aged 18–29 who experienced sexual violence by age 18
Domain	Risk factors
Subdomain	Injury and violence
Associated terms	Injuries
Definition	Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18.
Numerator	Total number of women and men aged 18–29 years surveyed who reported being a victim of sexual violence by age 18.
Denominator	Total number of persons aged 18–29 years.
Disaggregation/ additional dimension	Age, sex, type of sexual violence (intercourse, contact, non-contact)
Method of measurement	Population-based surveys with special module on sexual violence.
Method of estimation	This indicator is estimated using data from nationally representative population-based surveys of self-reported victimisation.
Measurement frequency	Every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys with special module on sexual violence
Other possible data sources	
Further information and related links	Global plan of action to strengthen the role of the health system within a national multisectoral response to address interpersonal violence, in particular against women and girls, and against children. Geneva: World Health Organization; 2016 (http://www.who.int/violence_injury_prevention/publications/violence/PoA_violence/en/, accessed 21 July 2017). Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) data portal. Geneva: World Health Organization; 2017 (http://apps.who.int/gho/data/node.gswcah, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Early marriage

Abbreviated name	Early marriage [SDG 5.3.1]
Indicator name	Percentage of women aged 20–24 who were married or in a union before age 15 and before age 18
Domain	Risk factors
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Injuries/harmful traditional practices
Definition	Percentage of women aged 20–24 who were married or in a union before age 15 and before age 18.
Numerator	Number of women aged 20–24 who were married or in a union before age 15 and before age 18.
Denominator	Total number of women aged 20–24.
Disaggregation/ additional dimension	Place of residence, socio-economic status
Method of measurement	
Method of estimation	Number of women aged 20–24 who were first married or in union before age 15 (or before age 18) divided by the total number of women aged 20–24 in the population x 100.
Measurement frequency	
Monitoring and evaluation framework	Outcome
Preferred data sources	Civil registration and vital statistics system; national population-based survey
Other possible data sources	
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Frequency rates of occupational injuries

Abbreviated name	Frequency rates of occupational injuries [SDG 8.8.1]
Indicator name	Frequency rates of fatal and non-fatal occupational injuries
Domain	Risk factors
Subdomain	Environment
Associated terms	Injuries
Definition	Frequency rates of fatal and non-fatal occupational injuries provide information on the number of cases of fatal and non-fatal occupational injury per hours worked by the concerned population during the reference period. It is a measure of risk of having a fatal or non-fatal occupational injury based on the duration of exposure to adverse work-related factors. The rates for fatal and non-fatal occupational injury rates are calculated separately.
Numerator	Number of new cases of fatal injury during the reference year, and number of new cases of non-fatal injury during the reference year, respectively.
Denominator	Total number of hours worked by workers in the reference group during the reference year, multiplied by 1 000 000.
Disaggregation/ additional dimension	Migrant status, sex
Method of measurement	The frequency rates of fatal and non-fatal occupational injuries will be calculated separately, since statistics on fatal injuries tend to come from a different source than those on non-fatal injuries, which would make their sum into total occupational accidents inaccurate. The fatal occupational injury frequency rate is calculated as the number of new cases of fatal injury during the reference year divided by the total number of hours worked by workers in the reference group during the reference year, multiplied by 1 000 000. Similarly, the non-fatal occupational injury frequency rate is calculated as the number of new cases of non-fatal injury during the reference year divided by the total number of hours worked by workers in the reference group during the reference year, multiplied by 1 000 000. Ideally, the denominator should be the number of hours actually worked by workers in the reference group. When this is not possible, the denominator can be calculated on the basis of normal hours of work taking into account entitlements to periods of paid absence from work, such as paid vacations, paid sick leave and public holidays. If the data needed to calculate frequency rates is not available, incidence rates may be calculated instead. The fatal occupational injury incidence rate is calculated as the number of new cases of fatal injury during the reference year divided by the average number of workers in the reference group during the reference year, multiplied by 100 000. Similarly, the non-fatal occupational injury incidence rate is calculated as the number of new cases of non-fatal injury during the reference year divided by the average number of workers in the reference group during the reference year, multiplied by 100 000. In calculating the average number of workers, the number of part-time workers should be converted to full-time equivalents. For the calculation of rates, the numerator and the denominator should have the same coverage. For example, if self-employed persons are not covered by the source of statistics on fatal occupational injuries, they should also be taken out of the denominator.
Method of estimation	(Number of new cases of fatal injury during the reference year)/(Total number of hours worked by workers in the reference group during the reference year) x 1 000 000, and (Number of new cases of non-fatal injury during the reference year)/(Total number of hours worked by workers in the reference group during the reference year) x 1 000 000, respectively.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Administrative records (e.g., records of national notification systems for occupational injuries)
Other possible data sources	National population-based surveys, establishment surveys
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). Workers' health: global plan of action. Agenda item 12.13, Sixtieth World Health Assembly, 14-23 May 2007. Geneva: World Health Organization; 2007 (http://www.who.int/occupational_health/WHO_health_assembly_en_web.pdf?ua=1, accessed 20 July 2017).

Service coverage indicators

Reproductive, maternal, newborn, child and adolescent

- Demand for family planning satisfied with modern methods [SDG 3.7.1]
- Contraceptive prevalence rate
- Antenatal care coverage
- Births attended by skilled health personnel [SDG 3.1.2]
  - *(Also: institutional delivery – overall and in "baby-friendly" institutions)*
- Postpartum care coverage – women
- Postnatal care coverage – newborn
- Care-seeking for symptoms of pneumonia
- Coverage of diarrhoea treatment
- Vitamin A supplementation coverage

Immunization

- Immunization coverage rate by vaccine for each vaccine in the national schedule [SDG 3.b.1]

HIV

- People living with HIV who know their status
- Prevention of mother-to-child transmission
- Antiretroviral therapy (ART) coverage
- HIV viral load suppression

HIV / TB

- Coverage of treatment for latent TB infection (LTBI)
- HIV test results for TB patients
- HIV-positive new and relapse TB patients on ART during TB treatment

Tuberculosis

- Drug susceptibility testing coverage for TB patients
- TB treatment coverage
- Treatment coverage for drug-resistant TB

Malaria

- Intermittent preventive therapy for malaria during pregnancy (IPTp)
- Use of insecticide treated nets (ITNs)
- Treatment of confirmed malaria cases
- Indoor residual spraying (IRS) coverage

Neglected tropical diseases

- Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]
- Coverage of preventive chemotherapy for selected neglected tropical diseases

Screening and preventive care

- Cervical cancer screening

Mental health

- Coverage of services for severe mental health disorders

Substance abuse

- Treatment coverage for alcohol and drug dependence [SDG 3.5.1]

Essential health services

- Coverage of essential health services [SDG 3.8.1]

Demand for family planning satisfied with modern methods

Abbreviated name	Demand for family planning satisfied with modern methods [SDG 3.7.1]
Indicator name	Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	The percentage of women of reproductive age (15–49 years) who desire either to have no (additional) children or to postpone the next child and who are currently using a modern contraceptive method.
Numerator	Number of women of reproductive age (15–49 years old) who are currently using, or whose sexual partner is currently using, at least one modern contraceptive method.
Denominator	Total demand for family planning (the sum of contraceptive prevalence (any method) and the unmet need for family planning).
Disaggregation/ additional dimension	Age, education, geographic location, marital status, number of living children, socioeconomic status
Method of measurement	The percentage of women of reproductive age (15–49 years) who have their need for family planning satisfied with modern methods is also referred to as the proportion of demand satisfied by modern methods. The components of the indicator are contraceptive prevalence (any method and modern methods) and unmet need for family planning. Currently, the variant of this indicator that is measured is "Percentage of women of reproductive age (15–49 years) who are sexually active and who have their need for family planning satisfied with modern methods."
Method of estimation	A Bayesian hierarchical model is used to generate regional and global estimates and projections of the indicator. Aggregate estimates and projections are weighted averages of the model-based country estimates, using the number of married or in-union women aged 15–49 for the reference year in each country. Regional averages are provided only if data are available on contraceptive prevalence for at least 50 per cent of the women of reproductive age who are married or in union in the region.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World contraceptive use 2016. In: United Nations Department of Economic and Social Affairs Population Division [website]. New York (NY): United Nations; 2017 (http://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2016.shtml, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Abbreviated name	Contraceptive prevalence rate
Indicator name	Contraceptive prevalence rate
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	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.
Numerator	Number of women using or partner using a contraceptive method.
Denominator	Number of women married or in a union.
Disaggregation/ additional dimension	Age, method (short, long, permanent), place of residence, sexually active (irrespective of marital status or whether in a union), socioeconomic status
Method of measurement	Contraceptive prevalence = (women of reproductive age [15–49 years] who are married or in a union and who are currently using any method of contraception)/(total number of women of reproductive age [15–49 years] who are married or in a union) x 100. Household surveys that can generate this indicator include DHS, 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 DHS, MICS, FFS, the CDC-assisted RHS and national family planning, or health, or household, or socioeconomic 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. Predominant type of statistics: adjusted.
Measurement frequency	Biennial
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	Routine facility information systems/health facility assessments and surveys
Further information and related links	Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017). Monitoring progress in family planning. FP2020 core indicators. Glastonbury (CT): Track20 (http://www.track20.org/pages/data/indicators, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Antenatal care coverage

Abbreviated name	Antenatal care coverage
Indicator name	Percentage of women aged 15–49 who received four or more antenatal care visits
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Percentage of women aged 15—49 years with a live birth in a given time period who received antenatal care, four times or more times from any provider. *Note:* A new indicator is currently being developed in line with the new WHO guideline which recommends "ANC models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care.
Numerator	Number of women aged 15—49 years with a live birth in a given time period who received antenatal care four or more times.
Denominator	Total number of women aged 15—49 years with a live birth in the same period.
Disaggregation/ additional dimension	Age, place of residence, socioeconomic status, type of provider
Method of measurement	The number of women aged 15-49 with a live birth in a given time period that received antenatal care four or more times 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 four times during pregnancy by any provider for reasons related to the pregnancy/total number of women aged 15-49 with a live birth) x 100. The ANC4+ indicator is based on standard question that ask if and how many times the health of the woman was checked during pregnancy. Unlike antenatal care coverage (at least one visit), antenatal care coverage (at least four visit) includes care given by any provider, not just skilled health personnel. This is because the key national level household surveys do not collect information on type of provider for each visit. 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. Registry/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. 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. 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 per cent of the live births in the region are covered.
Measurement frequency	Annual from routine facility reports; every 3—5 years from survey
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	Registry/facility reporting system
Further information and related links	Countdown to 2015 decade report (2000—2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017). WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/250796/1/9789241549912-eng.pdf?ua=1, accessed 3 October 2017).

Abbreviated name	Births attended by skilled health personnel [SDG 3.1.2] *(Also: Institutional Delivery – overall and in "baby-friendly" institutions)*
Indicator name	Proportion of births attended by skilled health personnel (%)
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Percentage of live births attended by skilled health personnel during a specified time period.
Numerator	Number of births attended by skilled health personnel (doctors, nurses or midwives) trained in providing life-saving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, childbirth and the postpartum period, to conduct deliveries on their own, and to care for newborns.
Denominator	The total number of live births in the same period.
Disaggregation/ additional dimension	Age, parity, place of residence, socioeconomic status, type of provider *Also: Institutional delivery coverage (women giving birth in a health institution) among all births in the population (including "baby-friendly" institutions)* *Definition: Proportion of mothers who gave birth in a health institution.* *Numerator: Number of deliveries in institutions.* *Denominator: Total deliveries (estimated). (In household surveys the denominator used is live births.)* *Disaggregation: Age, baby-friendly institutions, facility type, geographic location, parity.*
Method of measurement	Definition of skilled birth attendant varies between countries. The percentage of births attended by skilled health personnel is calculated as the number of births attended by skilled health personnel (doctors, nurses or midwives) expressed as a percentage of the total number of live births in the same period. 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 DHS, MICS and RHS, the respondent is asked about the most recent birth and who helped 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 are therefore recorded.
Method of estimation	Data for global monitoring are reported by UNICEF and WHO. These agencies obtain the data – both survey and registry data – from national sources. Before data can be included in the global databases, UNICEF and WHO undertake a process of data verification that includes correspondence with field offices to clarify any questions. In terms of survey data, some survey reports may present a total percentage of live births attended by a type of provider that does not conform to the joint statement by WHO, ICM and FIGO (e.g. total includes providers who are not considered skilled, such as community health workers). In this case, the percentage delivered by a physician, nurse or midwife are totalled and entered into the global database as the SDG estimate. Predominant type of statistics: adjusted.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	Routine facility information systems
Further information and related links	Global Strategy for Women's, Children's and Adolescent's Health 2016–2030. Geneva, World Health Organization; 2016 (http://www.who.int/life-course/partners/global-strategy/en/, accessed 20 July 2017). Skilled attendants at birth. In: Global Health Observatory [website]. Geneva: World Health Organization; 2017 (http://www.who.int/gho/maternal_health/skilled_care/skilled_birth_attendance/en/), accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Postpartum care coverage – women

Abbreviated name	Postpartum care coverage – women
Indicator name	Postpartum care coverage – women
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Proportion of women who have postpartum contact with a health provider within 2 days of delivery.
Numerator	Number of women who received postpartum care within two days of childbirth.
Denominator	Total number of women aged 15–49 years with a live birth in the specified time period.
Disaggregation/ additional dimension	Age, facility ownership, marital status, maternal education level, parity, place of residence, socioeconomic status
Method of measurement	Female survey respondents are asked about their most recent live birth, and when, if at all, their health was checked following delivery. This should include births at home and those in a health facility.
Method of estimation	Data are taken from UNICEF database (see link below), which compiled data from household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). Method of estimation of global and regional aggregates: population weighed average.
Measurement frequency	Annual from routine facility reports; every 3–5 years from survey
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	Routine facility information systems
Further information and related links	Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) data portal. Geneva: World Health Organization; 2017 (http://apps.who.int/gho/data/node.gswcah, accessed 20 July 2017). Moxon SG, Ruysen H, Kerber KJ, Amouzou A, Fournier S, Grove J et al. BMC Pregnancy and Childbirth. 205;15(Suppl 2):S8 (http://www.biomedcentral.com/1471-2393/15/S2/S8, accessed 4 October 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Postnatal care coverage – newborn
Indicator name	Percentage of newborns who have a postnatal contact with a health provider within 2 days of delivery
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Proportion of newborns who have a postnatal contact with a health provider within 2 days of delivery.
Numerator	Number of newborns who received postnatal care within two days of childbirth.
Denominator	Total number of last live births in the specified time period.
Disaggregation/ additional dimension	Facility ownership, place of residence, socioeconomic status
Method of measurement	Female survey respondents are asked about their most recent live birth, and when, if at all, their newborn's health was checked following delivery. This should include births at home and those in a health facility, but older surveys may only obtain this information for newborns born at home.
Method of estimation	Data are taken from UNICEF database (see link below), which compiled data from household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). Method of estimation of global and regional aggregates: population weighed average.
Measurement frequency	Annual from routine facility reports; every 3—5 years from survey
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	Routine facility information systems
Further information and related links	Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) data portal. Geneva: World Health Organization; 2017 (http://apps.who.int/gho/data/node.gswcah, accessed 20 July 2017). Moxon SG, Ruysen H, Kerber KJ, Amouzou A, Fournier S, Grove J et al. BMC Pregnancy and Childbirth. 205;15(Suppl 2):S8 (http://www.biomedcentral.com/1471-2393/15/S2/S8, accessed 4 October 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Care-seeking for symptoms of pneumonia

Abbreviated name	Care-seeking for symptoms of pneumonia
Indicator name	Percentage of children under 5 years of age with suspected pneumonia taken to an appropriate health facility or provider
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Percentage of children under 5 years of age with suspected pneumonia (cough and difficult breathing NOT due to a problem from a blocked nose) in the two weeks preceding the survey taken to an appropriate health facility or provider.
Numerator	Number of children with suspected pneumonia in the two weeks preceding the survey taken to an appropriate health facility or provider.
Denominator	Number of children with suspected pneumonia in the two weeks preceding the survey.
Disaggregation/ additional dimension	Place of residence, provider, sex, socioeconomic status *Also: with "receiving appropriate antibiotics"*
Method of measurement	During the UNICEF/WHO Meeting on Child Survival Survey-based Indicators, held in New York, USA, on 17–18 June 2004, it was recommended that suspected Acute Respiratory Infection (ARI) be described as "presumed pneumonia" to better reflect the probable cause and the recommended interventions. The definition of ARI used in the DHS and MICS was chosen by the group and is based on the mother's perceptions of a child who has a cough, is breathing faster than usual with short, quick breaths or is having difficulty breathing, excluding children who had only a blocked nose.
Method of estimation	
Measurement frequency	Every 3—5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	
Further information and related links	Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Ending preventable child deaths from pneumonia and diarrhoea by 2025. The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD). Geneva: World Health Organization/United Nations Children's Fund; 2013 (http://apps.who.int/iris/bitstream/10665/79200/1/9789241505239_eng.pdf?ua=1, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Abbreviated name	Coverage of diarrhoea treatment
Indicator name	Children under 5 years with diarrhoea receiving oral rehydration solution (ORS) and zinc supplement
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Percentage of children under 5 years of age with diarrhoea in the last two weeks receiving ORS (fluids made from ORS packets or pre-packaged ORS fluids) and zinc supplement.
Numerator	Number of children under 5 years of age with diarrhoea in the two weeks preceding the survey given fluid from ORS packets or pre-packaged ORS fluids and zinc supplement.
Denominator	Number of children with diarrhoea in the two weeks preceding the survey.
Disaggregation/ additional dimension	Place of residence, sex, socioeconomic status *Also: Children under 5 years with diarrhoea receiving oral rehydration solution (ORS)* *Definition: Percentage of children under 5 years of age with diarrhoea in the last two weeks receiving ORS (fluids made from ORS packets or pre-packaged ORS fluids).* *Numerator: Number of children under 5 years of age with diarrhoea in the two weeks preceding the survey given fluid from ORS packets or pre-packaged ORS fluids.* *Denominator: Number of children with diarrhoea in the two weeks preceding the survey.* *Disaggregation: Place of residence, sex, socioeconomic status.*
Method of measurement	According to the DHS, the term(s) used for diarrhoea should encompass the expressions used for all forms of diarrhoea, including bloody stools (consistent with dysentery), watery stools, etc. The term encompasses the mother's definition as well as locally-used term(s).
Method of estimation	
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys such as DHS, MICS and all other national household surveys with comparable questions on treatment of diarrhoea in children under 5 years
Other possible data sources	Routine facility information systems and community-based monitoring data
Further information and related links	Data Portal for Global Strategy for Women's, Children's and Adolescents' Health (2016-2030). WHO Global Health Observatory in collaboration with H6 Agencies and Partners (http://apps.who.int/gho/data/node.gswcah, accessed 6 September 2017). Ending preventable child deaths from pneumonia and diarrhoea by 2025. The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD). Geneva: World Health Organization/United Nations Children's Fund; 2013 (http://apps.who.int/iris/bitstream/10665/79200/1/9789241505239_eng.pdf?ua=1, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Vitamin A supplementation coverage

Abbreviated name	Vitamin A supplementation coverage
Indicator name	Children aged 6–59 months who received vitamin A supplementation (% of doses)
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Reproductive, maternal, newborn, child and adolescent
Definition	Percentage of children aged 6–59 months who received two age-appropriate doses of vitamin A in the past 12 months.
Numerator	Number of children who received two age-appropriate doses of vitamin A supplements in the last 12 months.
Denominator	Number of children aged 6–59 months in the survey.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status
Method of measurement	In accordance with WHO's 2011 guidelines on vitamin A supplementation in infants and children aged 6–59 months.
Method of estimation	
Measurement frequency	Annual from routine facility reports; every 3–5 years from survey
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey
Other possible data sources	Routine facility information systems
Further information and related links	Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Ending preventable child deaths from pneumonia and diarrhoea by 2025. The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD). Geneva: World Health Organization/United Nations Children's Fund; 2013 (http://apps.who.int/iris/bitstream/10665/79200/1/9789241505239_eng.pdf?ua=1, accessed 20 July 2017). Guideline: Vitamin A supplementation in infants and children 6–59 months of age. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44664/1/9789241501767_eng.pdf?ua=1&ua=1, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Immunization coverage rate by vaccine for each vaccine in the national schedule

Abbreviated name	Immunization coverage rate by vaccine for each vaccine in the national schedule [SDG 3.b.1]
Indicator name	Immunization coverage rate by vaccine for each vaccine in the national schedule
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – effectiveness
Associated terms	Immunization
Definition	Percentage of the target population that has received the last recommended dose of the basic series for each vaccine recommended in the national schedule by vaccine. This should include all vaccines within a country's routine immunization schedule (e.g., Bacillus Calmette–Guérin (BCG); polio; pneumococcal conjugate vaccine (PCV); rotavirus; diphtheria, tetanus, pertussis (DTP) containing vaccines, Hepatitis B containing vaccines, Haemophilus influenzae type b containing vaccines; measles-containing vaccine (MCV); rubella containing vaccines; human papilloma virus (HPV); tetanus toxoid (TT); tetanus-diphtheria toxoids (Td); influenza; and others as determined by the national schedule).
Numerator	The number of individuals in the target group for each vaccine that has received the last recommended dose in the basic series. For vaccines in the infant immunization schedule, if coverage is measured by administrative system it would be the birth cohort for BCG and Hepatitis B birth dose and surviving infants for the other antigens, in countries where measles is administered at first year of life will be children 12–23 months old. In case of coverage measured by survey this would be the number of children aged 12–23 months in the sample who have received the specified vaccinations before their first birthday.
Denominator	The total number of individuals in the target group for each vaccine. For vaccines in the infant immunization schedule, this would be the total number of infants surviving to age one. In case coverage is measured m by survey it would be the total number of 12–23 months of infants in the sample.
Disaggregation/ additional dimension	Age, place of residence, sex, socioeconomic status (from surveys only) DTP1–DTP3 dropout rate, MCV1–MCV2 dropout, full immunization coverage where possible
Method of measurement	Administrative reports from countries where the number of individuals in the target group that has received each vaccine is the numerator and the target population is the denominator or household surveys. In addition, WHO and UNICEF annually produce National Estimates of National Immunization Coverage for most vaccines.
Method of estimation	For survey data, the vaccination status of children aged 12–23 months is used for vaccines included in the infant immunization schedule, collected from child health cards or, if there is no card, from recall by the care-taker.
Measurement frequency	In most countries annual tracking through facility information systems, supplemented by periodic estimation through household surveys
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey, routine facility information system
Other possible data sources	
Further information and related links	Countdown to 2015. Monitoring maternal, newborn and child health: understanding key progress indicators. Geneva: World Health Organization; 2011 (http://apps.who.int/iris/bitstream/10665/44770/1/9789241502818_eng.pdf, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

People living with HIV who know their status

Abbreviated name	People living with HIV who know their status
Indicator name	People living with HIV who know their status
Domain	Service coverage
Subdomain	Infectious disease
Associated terms	Morbidity
Definition	Percentage of people living with HIV who know their status.
Numerator	Number of people living with HIV who know their status.
Denominator	Estimated number of people living with HIV.
Disaggregation/ additional dimension	Age (0–14, 15–49, 50+ years), geographic location, key populations (men who have sex with men, sex workers, people who inject drugs, transgender people, prisoners), sex
Method of measurement	For countries with HIV case-based surveillance, the numerator can be calculated by taking the number of cumulative cases reported and subtracting deaths since the start of the epidemic. Household surveys with HIV testing and questions to assess whether respondents know their positive status can also be used. For the denominator, countries will typically rely on modelled estimates of people living with HIV produced using Spectrum, a UNAIDS-supported software tool.
Method of estimation	For the numerator, if HIV case-based surveillance systems are not regularly updated with deaths or survey data directly asking respondents about their knowledge of status are not available, other proxy data such as the percentage of people living with HIV who know their HIV status (ever, and in the past 12 months) can be used to triangulate estimates. For the denominator, modelling, using multiple inputs specific to the HIV epidemic context, is typically used to obtain an estimate of the number of people living with HIV. UNAIDS supports most countries to produce estimates of the number of people living with HIV annually using Spectrum.
Measurement frequency	Annual (unless survey-based)
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system – case registry, national population-based surveys
Other possible data sources	
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Spectrum manual. Glastonbury (CT): Avenir Health. (http://avenirhealth.org/Download/Spectrum/Manuals/SpectrumManualE.pdf, accessed 20 July 2017). UNAIDS AIDSinfo database (http://aidsinfo.unaids.org/, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

Abbreviated name	Prevention of mother-to-child transmission
Indicator name	Prevention of mother-to-child transmission
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV
Definition	Percentage of HIV-positive pregnant women provided with ART to reduce the risk of mother-to-child transmission during pregnancy.
Numerator	Number of HIV-positive pregnant women who received ARV.
Denominator	Estimated number of HIV-positive pregnant women.
Disaggregation/ additional dimension	Treatment status at time of pregnancy (already receiving or initiated during pregnancy)
Method of measurement	The numerator can be calculated from national programme records aggregated from programme monitoring tools, such as patient registers and summary reporting forms. The denominator of the estimated number of HIV-positive pregnant women is typically obtained using Spectrum, a UNAIDS-supported software tool.
Method of estimation	Modelling, using multiple inputs specific to the HIV epidemic context, is typically used to obtain an estimate of the number of HIV-positive pregnant women and national programme records are used to determine the number receiving ARV. UNAIDS supports most countries to produce estimates of the number of HIV-positive pregnant women annually using Spectrum.
Measurement frequency	Annual (unless survey-based)
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system and modelled estimates of the number of HIV-positive pregnant women
Other possible data sources	
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Spectrum manual. Glastonbury (CT): Avenir Health. (http://avenirhealth.org/Download/Spectrum/Manuals/SpectrumManualE.pdf, accessed 20 July 2017). UNAIDS AIDSinfo database (http://aidsinfo.unaids.org/, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

Antiretroviral therapy (ART) coverage

Abbreviated name	Antiretroviral therapy (ART) coverage
Indicator name	Antiretroviral therapy (ART) coverage (%)
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV
Definition	Percentage of people living with HIV currently receiving ART among the estimated number of adults and children living with HIV.
Numerator	Number of adults and children who are currently receiving ART at the end of the reporting period.
Denominator	Estimated number of adults and children living with HIV.
Disaggregation/ additional dimension	Age: 1. Minimum for paper-based (routine): <15, 15+; 2. Annual data extraction of disaggregated data if not reported routinely: <5, 5–9, 10–14, 15–19, 20–24, 25–49, 50+; 3. Electronic system: 5-year age groups; Geographic location, key populations (men who have sex with men, sex workers, people who inject drugs, transgender people, prisoners), provider type (public/private), regimen type (e.g. first line, second line), sex
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. Data can be collected from facility-based ART 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 ART in the private sector and public sector should be included in the numerator where data are available. *Denominator:* The denominator is generated by estimating the number of people with advanced HIV infection requiring (in need of/eligible for) ART. This estimation must take into consideration a variety of factors, including, but not limited to, the current number of people with HIV, the current number of patients on ART and the natural history of HIV from infection to enrolment on ART. A standard modelling HIV estimation method, such as in the Spectrum model, is recommended.
Method of estimation	Modelling, using multiple inputs specific to the HIV epidemic context, is typically used to obtain an estimate of the number of people living with HIV and national programme records are used to determine the number receiving treatment. UNAIDS supports most countries to produce estimates of the number of people living with HIV annually using Spectrum.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system
Other possible data sources	Sentinel surveillance sites, national population-based surveys
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). Spectrum software. Glastonbury (CT): Avenir Health. (http://www.avenirhealth.org/software-spectrum.php, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

Abbreviated name	HIV viral load suppression
Indicator name	HIV viral load suppression
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV
Definition	Percentage of people on ART who are virologically suppressed (VL level ≤ 1000 copies/mL).
Numerator	Number of adults and children living with HIV and on ART who have a suppressed viral load (< 1000 copies/mL).
Denominator	Estimated number of people living with HIV.
Disaggregation/ additional dimension	Age: 1. Minimum for paper-based (routine): <15, 15+; 2. Annual data extraction of disaggregated data if not reported routinely: <5, 5–9, 10–14, 15–19, 20–24, 25–49, 50+; 3. Electronic system: 5-year age groups Sex
Method of measurement	Viral load data recorded in patient records and reported through facilities. If there are representative surveys collecting viral load data among people living with HIV and those on ART, the survey values can be used. Nationally representative surveys of acquired drug resistance also provide information on viral suppression.* * Acquired HIVDR Survey (http://www.who.int/hiv/pub/drugresistance/acquired_drugresistance/en/, accessed 20 July 2017).
Method of estimation	If a viral load measure is not available from a sufficiently representative sample of people living with HIV who are on ART, the level of viral load suppression among those on ART but without a viral load measurement in the past 12 months needs to be estimated. Estimates can be derived on the basis of characteristics among those without a viral load measure and their expected viral load suppression.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system
Other possible data sources	National population-based survey
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

Coverage of treatment for latent TB infection (LTBI)

Abbreviated name	Coverage of treatment for latent TB infection (LTBI)
Indicator name	Coverage of treatment for latent TB infection for people living with HIV, and children <5 years of age who are household contacts of a TB case
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV/TB
Definition	Number of people started on treatment for latent TB infection expressed as a percentage of the total number of eligible people in a specified time period, usually one year, for (a) people newly enrolled in HIV care and (b) children < 5 years old who are household contacts of bacteriologically confirmed new or relapse TB patients.
Numerator	a) Total number of eligible people living with HIV newly enrolled in HIV care started on preventive TB treatment during a specified time period, usually one year; b) Total number of children <5 years old who are household contacts of bacteriologically confirmed new or relapse TB patients started on preventive TB treatment during a specified time period, usually one year.
Denominator	a) Total number of people newly enrolled in HIV care and eligible for TB preventive treatment in the specified time period, usually one year; b) Total number of children < 5 years old who are household contacts of bacteriologically confirmed new or relapse TB patients and eligible for TB preventive treatment during the specified time period, usually one year.
Disaggregation/ additional dimension	Other at-risk populations
Method of measurement	For people living with HIV, eligibility for TB preventive treatment should be recorded in an HIV care/ART card (encounter section); those who accept treatment and receive at least the first dose should then be recorded in a register. For children who are contacts of bacteriologically-confirmed TB case, enrolment on TB preventive treatment should be recorded on that case's patient card. A contact register can be used to provide the denominator.
Method of estimation	The number of children who are household contacts of bacteriologically-confirmed TB cases is based on the number of notified cases and demographic data about household size.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system
Other possible data sources	
Further information and related links	A guide to monitoring and evaluation for collaborative TB/HIV activities (2015 revision). Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/150627/1/9789241508278_eng.pdf?ua=1&ua=1, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017).

HIV test results for TB patients

Abbreviated name	HIV test results for TB patients
Indicator name	HIV test results for registered new and relapse TB patients
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV/TB
Definition	Number of new and relapse TB patients who had an HIV test result recorded in the TB register, expressed as a percentage of the number registered in a specified time period.
Numerator	Number of new and relapse TB patients registered during a specified time period (usually one year) who had an HIV test result recorded in the TB register.
Denominator	Total number of new and relapse TB patients registered in the TB register during the specified time period.
Disaggregation/ additional dimension	Adults (aged ≥ 15 years) and children (aged 0–4 and 5–14 years), HIV status (positive, negative, unknown), sex
Method of measurement	TB treatment cards and TB registers should document the HIV status of TB patients. The history of previous TB treatment should also be documented systematically to identify new and relapse TB patients. The status of all TB patients should be recorded in TB registers as soon as possible and preferably at the time of TB diagnosis, along with information on past history of TB treatment.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Output
Preferred data sources	Routine facility information system
Other possible data sources	
Further information and related links	A guide to monitoring and evaluation for collaborative TB/HIV activities (2015 revision). Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/150627/1/9789241508278_eng.pdf?ua=1&ua=1, accessed 20 July 2017). Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global AIDS response progress reporting 2014: construction of core indicators for monitoring the 2011 United Nations political declaration on HIV/AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (http://www.unaids.org/en/media/unaids/contentassets/documents/document/2014/GARPR_2014_guidelines_en.pdf, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

HIV-positive new and relapse TB patients on ART during TB treatment

Abbreviated name	HIV-positive new and relapse TB patients on ART during TB treatment
Indicator name	HIV-positive new and relapse TB patients on antiretroviral therapy (ART) during TB treatment
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	HIV/TB
Definition	Number of HIV-positive new and relapse TB patients who received antiretroviral therapy (ART) during TB treatment, expressed as a percentage of those registered for TB treatment in a specified time period.
Numerator	Total number of HIV-positive new and relapse TB patients started on TB treatment during a specified time period (usually one year) who are already on ART or started on ART during TB treatment.
Denominator	Total number of HIV-positive new and relapse TB patients registered during the specified time period.
Disaggregation/ additional dimension	
Method of measurement	HIV-positive new and relapse TB patients who were started on ART, or who were already on ART, should be recorded in the TB treatment register. With paper-based systems, the National Tuberculosis Programme and National AIDS Control Programme should refer to both the TB and HIV registers to obtain the complete number of TB patients on ART.
Method of estimation	Not applicable.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system
Other possible data sources	
Further information and related links	A guide to monitoring and evaluation for collaborative TB/HIV activities (2015 revision). Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/150627/1/9789241508278_eng.pdf?ua=1&ua=1, accessed 20 July 2017). Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017).

Drug susceptibility testing coverage for TB patients

Abbreviated name	Drug susceptibility testing coverage for TB patients
Indicator name	Percentage of TB patients with test results for at least susceptibility to rifampicin
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Tuberculosis
Definition	Percentage of TB cases with drug susceptibility test results for at least rifampicin, during a specified time period (usually one year).
Numerator	Number of notified TB cases with drug susceptibility testing results for at least rifampicin resistance during a specified time period, usually one year.
Denominator	Number of TB cases notified during the specified time period (usually one year).
Disaggregation/ additional dimension	Treatment history (new, previously treated), risk factors specified in national policy
Method of measurement	DST results should be recorded in the TB facility register and treatment card. The number of notified cases is collected as part of routine national TB surveillance (see also method of measurement for the indicator "TB case notification rate").
Method of estimation	Not applicable.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system
Other possible data sources	
Further information and related links	Companion handbook to the WHO guidelines for the programmatic management of drug-resistant tuberculosis. Geneva: World Health Organization; 2014 (http://www.who.int/tb/publications/pmdt_companionhandbook/en/, accessed 20 July 2017). Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017).

TB treatment coverage

Abbreviated name	TB treatment coverage
Indicator name	TB treatment coverage for all forms of tuberculosis
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Tuberculosis
Definition	Number of new and relapse cases that were notified and treated in a given year, divided by the estimated number of incident TB cases in the same year, expressed as a percentage.
Numerator	Number of new and relapse cases notified and treated in a given year.
Denominator	Number of estimated incident cases in the same year.
Disaggregation/ additional dimension	
Method of measurement	Notification data reported by national TB programmes or national surveillance systems (see also TB notification rate indicator). For methods used for TB incidence, see methods described for "TB incidence rate".
Method of estimation	For TB incidence, see methods described for the indicator "TB incidence rate".
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Routine facility information system; surveillance systems
Other possible data sources	Routine facility information systems/health facility assessments and surveys
Further information and related links	Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Treatment coverage for drug-resistant TB

Abbreviated name	Treatment coverage for drug-resistant TB
Indicator name	Treatment coverage for TB cases with rifampicin-resistant or multidrug-resistant TB (MDR-TB/RR-TB)
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Tuberculosis
Definition	Number of cases of MDR/RR-TB who were detected and enrolled on a second-line MDR-TB treatment regimen in a given year, divided by the estimated number of MDR/RR-TB cases among notified TB cases in the same year, expressed as a percentage.
Numerator	Number of rifampicin-resistant cases (presumptive or confirmed) registered and started on a prescribed MDR-TB treatment regimen in a given year.
Denominator	Estimated number of notified TB patients with MDR/RR-TB in the same year.
Disaggregation/ additional dimension	Treatment history (new, previously treated)
Method of measurement	Number of cases started on treatment is counted from the second-line TB treatment register. Number of notified TB patients with RR/MDR-TB is estimated by combining the number of notifications with evidence about the proportion of cases that have MDR-TB from drug resistance surveys or continuous surveillance systems with high coverage of diagnostic testing for drug resistance.
Method of estimation	The estimated number of notified TB cases with RR/MDR-TB is based on results from drug resistance surveillance. See Global TB Report 2016.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Notification data combined with evidence about the proportion of TB patients that have MDR/RR-TB from continuous surveillance systems or drug resistance surveys
Other possible data sources	
Further information and related links	Companion handbook to the WHO guidelines for the programmatic management of drug-resistant tuberculosis. Geneva: World Health Organization; 2014 (http://www.who.int/tb/publications/pmdt_companionhandbook/en/, accessed 20 July 2017). Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017).

Intermittent preventive therapy for malaria during pregnancy (IPTp)

Abbreviated name	Intermittent preventive therapy for malaria during pregnancy (IPTp)
Indicator name	Intermittent preventive therapy for malaria during pregnancy (IPTp)
Domain	Service coverage
Subdomain	Infectious disease
Associated terms	Malaria
Definition	Percentage of women who received three or more doses of intermittent preventive treatment during antenatal care visits during their last pregnancy.
Numerator	Number of women receiving three or more doses of recommended treatment.
Denominator	Total number of pregnant women/surveyed with a live birth in the last 2 years.
Disaggregation/ additional dimension	Age, place of residence, socioeconomic status
Method of measurement	
Method of estimation	
Measurement frequency	
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based survey, routine facility information systems
Other possible data sources	
Further information and related links	Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/ President's Malaria Initiative/Roll Back Malaria Partnership/UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Roll Back Malaria Partnership/WHO. Disease surveillance for malaria control: an operations manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Use of insecticide treated nets (ITNs)

Abbreviated name	Use of insecticide treated nets (ITNs)
Indicator name	Percentage of population sleeping under insecticide-treated nets (%)
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Malaria
Definition	Percentage population in malaria-endemic areas who slept under an ITN the previous night.
Numerator	Number of people in malaria endemic areas who slept under an ITN.
Denominator	Total number of people in malaria endemic areas.
Disaggregation/ additional dimension	Age group, household size, place of residence, pregnant women, sex, socioeconomic status
Method of measurement	Data are principally derived from nationally representative household surveys such as Demographic and Health Surveys, Multiple Indicator Surveys, Malaria Indicator Surveys and other representative population based surveys.
Method of estimation	Household survey results may be supplemented with information on ITN deliveries from manufacturers and distribution by malaria programmes to model annual estimates of this indicator.
Measurement frequency	Surveys: every 3—5 years; modelled estimates: annually
Monitoring and evaluation framework	Outcome
Preferred data sources	Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Malaria Indicator Surveys (MIS)
Other possible data sources	National Malaria Control Programs; Manufacturer deliveries
Further information and related links	Global technical strategy for malaria 2016–2030. Geneva: World Health Organization; 2015 (http://www.who.int/malaria/publications/atoz/9789241564991/en/, accessed 31 August 2017). Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO; 2013 (https://www.measureevaluation.org/resources/publications/ms-13-78, accessed 31 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World Malaria Report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/malaria/publications/world-malaria-report-2016/en/, accessed 31 August 2017).

Treatment of confirmed malaria cases

Abbreviated name	Treatment of confirmed malaria cases
Indicator name	Treatment of confirmed malaria cases (%)
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Malaria
Definition	Percentage of confirmed malaria cases that receive first-line antimalarial treatment.
Numerator	Number of confirmed malaria cases that receive first line antimalarial treatment.
Denominator	Number of confirmed malaria cases.
Disaggregation/ additional dimension	Age group, sex, place of residence, socioeconomic status
Method of measurement	Data may be obtained through routine facility reports and/or health facility-based surveys.
Method of estimation	Survey results, information from manufacturers on number of treatment courses sold and from malaria programmes on number of treatment courses distributed can be combined to model annual estimates of this indicator.
Measurement frequency	Monthly; surveys: every 1–3 years
Monitoring and evaluation framework	Outcome
Preferred data sources	
Other possible data sources	
Further information and related links	Global technical strategy for malaria 2016–2030. Geneva: World Health Organization; 2015 (http://www.who.int/malaria/publications/atoz/9789241564991/en/, accessed 31 August 2017). Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/President's Malaria Initiative/Roll Back Malaria Partnership/ UNICEF/WHO; 2013 (https://www.measureevaluation.org/resources/publications/ms-13-78, accessed 31 August 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). World Malaria Report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/malaria/publications/world-malaria-report-2016/en/, accessed 31 August 2017).

Indoor residual spraying (IRS) coverage

Abbreviated name	Indoor residual spraying (IRS) coverage
Indicator name	Indoor residual spraying (IRS) coverage (%)
Domain	Service coverage
Subdomain	Infectious disease
Associated terms	Malaria
Definition	Percentage of population protected by IRS during a specified time period.
Numerator	Number of persons protected by IRS.
Denominator	Population at risk.
Disaggregation/ additional dimension	
Method of measurement	Data may be obtained through spraying records.
Method of estimation	
Measurement frequency	Monthly
Monitoring and evaluation framework	Outcome
Preferred data sources	Administrative reporting systems
Other possible data sources	
Further information and related links	Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Household Survey Indicators for Malaria Control. Measure Evaluation/Measure DHS/ President's Malaria Initiative/Roll Back Malaria Partnership/UNICEF/WHO. 2013 (http://www.malariasurveys.org/documents/Household%20Survey%20Indicators%20for%20Malaria%20Control.pdf, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017). WHO. Disease surveillance for malaria control: an operational manual. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44851/1/9789241503341_eng.pdf, accessed 30 August 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Number of people requiring interventions against neglected tropical diseases

Abbreviated name	Number of people requiring interventions against neglected tropical diseases [SDG 3.3.5]
Indicator name	Number of people requiring interventions against neglected tropical diseases
Domain	Service coverage
Subdomain	Infectious disease
Associated terms	Neglected tropical disease
Definition	Number of people requiring treatment and care for any one of the neglected tropical diseases (NTDs) targeted by the WHO NTD Roadmap and World Health Assembly resolutions and reported to WHO. Treatment and care is broadly defined to allow for preventive, curative, surgical or rehabilitative treatment and care. Other interventions (e.g. vector management, veterinary public health, water, sanitation and hygiene, disease surveillance, morbidity management and disability prevention) are to be addressed in the context of targets and indicators for Universal Health Coverage (UHC) and universal access to water and sanitation.
Numerator	Average annual number of people requiring preventive chemotherapy (PC) for at least one PC-NTD; and Number of new cases requiring individual treatment and care for other NTDs.
Denominator	
Disaggregation/ additional dimension	Age; forms of disease; location (urban/rural)
Method of measurement	
Method of estimation	Some estimation is required to aggregate data across interventions and diseases. There is an established methodology that has been tested and an agreed international standard. 1. Average annual number of people requiring PC for at least one PC-NTD: People may require PC for more than one PC-NTD. The number of people requiring PC is compared across the PC-NTDs, by age group and implementation unit (e.g. district). The largest number of people requiring PC is retained for each age group in each implementation unit. The total is considered to be a conservative estimate of the number of people requiring PC for at least one PC-NTD. Prevalence surveys (e.g. transmission assessment surveys) determine when an NTD has been eliminated or controlled and PC can be stopped or reduced in frequency, such that the average annual number of people requiring PC is reduced. 2. Number of new cases requiring individual treatment and care for other NTDs: The number of new cases is based on country reports, whenever available, of new and known cases of Buruli ulcer, Chagas disease, cysticercosis, dengue, guinea-worm disease, echinococcosis, human African trypanosomiasis (HAT), leprosy, the leishmaniases, rabies and yaws. Where the number of people requiring and requesting surgery for PC-NTDs (e.g. trichiasis or hydrocele surgery) is reported, it can be added here. Similarly, new cases requiring and requesting rehabilitation (e.g. leprosy or lymphoedema) can be added whenever available. Case reports may not be comparable over time; some further estimation may be required to adjust for changes in case-finding and reporting. Populations referred to under 1) and 2) may overlap; the sum would overestimate the total number of people requiring treatment. The maximum of 1) or 2) is therefore retained at the lowest common implementation unit and summed to get conservative country, regional and global aggregates. By 2030, improved co-endemicity data and models will validate the trends obtained using this simplified approach.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Existing country systems
Other possible data sources	
Further information and related links	Accelerating work to overcome the global impact of neglected tropical diseases: a roadmap for implementation. Geneva: World Health Organization; 2012 (http://www.who.int/neglected_diseases/NTD_RoadMap_2012_Fullversion.pdf, accessed 11 August 2017). Global plan to combat neglected tropical diseases, 2008–2015. Geneva: World Health Organization; 2007 (http://apps.who.int/iris/bitstream/10665/69708/1/WHO_CDS_NTD_2007.3_eng.pdf?ua=1, accessed 20 July 2017). Investing to overcome the global impact of neglected tropical diseases: Third WHO report on neglected tropical diseases. Geneva: World Health Organization; 2015 (http://www.who.int/neglected_diseases/9789241564861/en/, accessed 11 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

Coverage of preventive chemotherapy for selected neglected tropical diseases

Abbreviated name	Coverage of preventive chemotherapy for selected neglected tropical diseases
Indicator name	Coverage of preventive chemotherapy for selected neglected tropical diseases
Domain	Service coverage
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Neglected tropical diseases
Definition	Proportion of the population living in endemic areas requiring preventive chemotherapy that received treatment for at least one of the selected neglected tropical diseases (schistosomiasis, soil-transmitted helminthiases, lymphatic filariasis, onchocerciasis).
Numerator	Number of people requiring and receiving preventive chemotherapy for at least one of the selected neglected tropical diseases (schistosomiasis, soil-transmitted helminthiases, lymphatic filariasis, onchocerciasis).
Denominator	Number of people requiring preventive chemotherapy for at least one of the selected neglected tropical diseases (schistosomiasis, soil-transmitted helminthiases, lymphatic filariasis, onchocerciasis).
Disaggregation/ additional dimension	Age group (pre-school-aged children [1–4 years], school-aged [5–14 years] and adults [≥ 15 years]) Disaggregation by sex and district is optional or depends on which diseases are co-endemic
Method of measurement	Country reporting systems.
Method of estimation	The number of people requiring/receiving preventive chemotherapy through each disease-specific control or elimination programme is reported by national programme managers from ministries of health to WHO. The number of people requiring preventive chemotherapy for each disease was compared among the different age groups in each country, and the largest population in each age group for any of the diseases was selected as the conservative estimate of the number of people requiring preventive chemotherapy for at least one disease in that particular age group. Finally, the largest populations requiring preventive chemotherapy in each age group were summed, and this total was considered to be a conservative estimate of the number of individuals needing preventive chemotherapy for at least one disease. The same principle was used to estimate the number of people who had received integrated preventive chemotherapy. When subnational data on treatment coverage were available, the analysis was conducted at the subnational level.
Measurement frequency	Annual
Monitoring and evaluation framework	Outcome
Preferred data sources	Administrative reporting systems, in particular the Joint Application Package for donated medicines.
Other possible data sources	Other sources, including estimation and modelling
Further information and related links	Global plan to combat neglected tropical diseases, 2008–2015. Geneva: World Health Organization; 2007 (http://apps.who.int/iris/bitstream/10665/69708/1/WHO_CDS_NTD_2007.3_eng.pdf?ua=1, accessed 20 July 2017). Integrated preventive chemotherapy for neglected tropical diseases: estimation of the number of interventions required and delivered, 2009–2010. Wkly Epidemiol Rec. 2012;87:17-28 (http://www.who.int/wer/2012/wer8702.pdf, accessed 20 July 2017). Neglected tropical diseases: planning, requesting medicines and reporting (WHO webpage). Geneva: World Health Organization; 2015 (http://www.who.int/neglected_diseases/preventive_chemotherapy/reporting/en/, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Cervical cancer screening

Abbreviated name	Cervical cancer screening
Indicator name	Cervical cancer screening
Domain	Service coverage
Subdomain	Reproductive, maternal, newborn, child and adolescent health
Associated terms	Screening and preventive care
Definition	Proportion of women aged 30–49 years who report they were screened for cervical cancer using any of the following methods: visual Inspection with acetic acid/vinegar (VIA), pap smear, human papilloma virus (HPV) test.
Numerator	Number of women aged 30–49 years who report ever having had a screening test for cervical cancer using any of these methods: VIA, pap smear and HPV test.
Denominator	All female respondents aged 30–49 years.
Disaggregation/ additional dimension	Age, sex, other relevant sociodemographic stratifiers where available
Method of measurement	
Method of estimation	(Number of female respondents aged 30–49 years who report ever having had a screening test for cervical cancer)/(number of female respondents aged 30–49 years) x 100.
Measurement frequency	At least every 5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	Facility-based data
Further information and related links	Draft comprehensive global monitoring framework and targets for the prevention and control of noncommunicable diseases, including a set of indicators. Agenda item A66/8, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_8-en.pdf?ua=1, accessed 20 July 2017). Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C et al. Globocan 2012. Estimated cancer incidence, mortality and prevalence worldwide in 2012. Lyon: International Agency for Research on Cancer; IARC CancerBase No. 11 (http://globocan.iarc.fr, accessed 20 July 2017). WHO guidelines for screening and treatment of precancerous lesions of cervical cancer prevention. Geneva: World Health Organization; 2013 (http://www.who.int/reproductivehealth/publications/cancers/screening_and_treatment_of_precancerous_lesions/en/, accessed 31 August 2017).

Coverage of services for severe mental health disorders

Abbreviated name	Coverage of services for severe mental health disorders
Indicator name	Coverage of services for severe mental health disorders
Domain	Service coverage
Subdomain	NCDs and nutrition
Associated terms	Mental health
Definition	Percentage of persons with a severe mental disorder (psychosis, bipolar affective disorder, moderate-severe depression) who are using services.
Numerator	Number of people receiving services.
Denominator	Total number of people in need.
Disaggregation/ additional dimension	Age, sex
Method of measurement	
Method of estimation	
Measurement frequency	
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys
Other possible data sources	Routine facility information systems
Further information and related links	World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Treatment coverage for alcohol and drug dependence

Abbreviated name	Treatment coverage for alcohol and drug dependence [SDG 3.5.1]
Indicator name	Treatment coverage for alcohol and drug dependence
Domain	Service coverage
Subdomain	NCDs and nutrition
Associated terms	Substance abuse
Definition	Treatment coverage is defined as the proportion of people with alcohol or drug dependence (including those who are not seeking treatment) that are in contact with treatment services, i.e. currently receiving treatment or in remission or relapse, but still in contact with treatment services.
Numerator	Number of people with alcohol or drug dependence in contact with treatment services, i.e. currently receiving treatment or in remission or relapse, but still in contact with treatment services.
Denominator	Number of people with alcohol or drug dependence (including those who are not seeking treatment).
Disaggregation/ additional dimension	Classes of psychoactive substances such as alcohol, opioids, cocaine, cannabis
Method of measurement	Estimation of treatment coverage in populations is based on the data from the global survey of key informants in national health authorities implemented by WHO periodically (WHO ATLAS survey on prevention and treatment resources for substance use disorders – ATLAS SU) and supported by available data on prevalence of substance use disorders and treatment coverage. Special efforts are undertaken by WHO to improve availability of data for treatment coverage estimation.
Method of estimation	
Measurement frequency	Every 3–5 years based on the WHO Global ATLAS-SU survey and Annual supportive data available from countries including routine health facility reports produced annually in some countries
Monitoring and evaluation framework	Outcome
Preferred data sources	National population-based surveys; health system data on treatment provision; data from sentinel surveillance sites.
Other possible data sources	Estimation and modelling
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Abbreviated name	Coverage of essential health services [SDG 3.8.1]
Indicator name	Coverage of essential health services
Domain	Service coverage
Subdomain	General
Associated terms	Essential health services
Definition	Universal health coverage (UHC) includes both access to quality health services and medicines and financial risk protection. The definition in this section focuses on the coverage of essential health services. The indicator on financial risk protection can be found on page 138. The coverage of essential health services, as defined by SDG indicator 3.8.1, is the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population. These tracer indicators are combined into a service coverage index, which provides a summary indicator of service coverage. Current tracer indicators are grouped into the four categories as follows: *Reproductive, maternal, new born and child health:* Demand satisfied for family planning with modern methods; ANC4 coverage; three doses of DTP; care-seeking for children with symptoms of pneumonia. *Infectious disease:* TB case detection and treatment; ART coverage; ITN coverage; improved sanitation facilities. *Non-communicable diseases:* Non-raised blood pressure; fasting plasma glucose; not smoking tobacco ; and cervical cancer screening. *Service capacity and access:* Hospital beds per capita; health workforce density (physicians, surgeons and psychiatrists per capita); access to essential medicines; health security. The aim of monitoring of UHC by countries is to ensure that progress towards UHC reflects the country's unique epidemiological and demographic profile, health system and level of economic development and the population's demands and expectations. While the country context determines the measures used, the domains to be monitored – coverage with good-quality essential services and with financial protection – are relevant to all countries, regardless of their level of income, their demographic profile or their health needs. Periodic global monitoring permits comparison of progress towards UHC, so that countries can learn from one another. Global monitoring is not, however, a substitute for country monitoring, and countries are encouraged to tailor their measures of UHC by drawing on this framework to best reflect their context. Furthermore, because of the dynamic nature and progressive realization of UHC, the priorities for monitoring will differ among countries.
Numerator	
Denominator	
Disaggregation/ additional dimension	Types of available data sources dictate how each coverage indicator can be disaggregated. Work is underway to propose appropriate methods to adjust the index to reflect inequalities.
Method of measurement	Metadata for the specific indicators included in UHC service coverage index are included in the relevant indicator pages.
Method of estimation	Values for indicators used in the UHC service coverage index are taken from existing, publicly available data sources, such as UN interagency estimates or household survey data compiled by WHO. All indicators are structured so they occur on a scale of 0 to 100%, with 100% the target. For example, non-use of tobacco, rather than use of tobacco, is used, and hospital bed density and health professional density are rescaled onto a scale of 0 to 100%. The index is constructed from geometric means of component indicators, first within each of the four categories, and then across those category-specific means to obtain the final summary index.
Measurement frequency	Every 3–5 years
Monitoring and evaluation framework	Outcome
Preferred data sources	Each indicator has different data sources.
Other possible data sources	
Further information and related links	Monitoring universal health coverage. In: Health statistics and information systems [website]. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Health systems indicators

Quality and safety of care

- Perioperative mortality rate
- Obstetric and gynaecological admissions owing to abortion
- Institutional maternal mortality ratio
- Maternal death reviews
- ART retention rate
- TB treatment success rate
- Service-specific availability and readiness

Access

- Outpatient service utilization *(Also: inpatient admissions and surgical volume)*
- Health facility density and distribution *(Also: access to emergency surgery)*
- Hospital bed density
- Access to a core set of relevant essential medicines [SDG 3.b.3]

Health workforce

- Health worker density and distribution [SDG 3.c.1]
- Output training institutions

Health information

- Birth registration [SDG 16.9.1]
- Death registration [SDG 17.19.2]
- Completeness of reporting by facilities *(Also: completeness and timeliness for notifiable diseases)*

Health financing

- Total current expenditure on health as % of gross domestic product *(Also: total capital expenditure on health as % of current + capital expenditure on health)*
- Public domestic sources of current spending on health as % of current health expenditure *(Also: private)*
- External source of current spending on health (% of current expenditure on health)
- Proportion of the population with impoverishing health expenditure
- Proportion of the population with large household expenditure on health as a share of total household consumption or income [SDG 3.8.2]
- Total net official development assistance to medical research and basic health sectors [SDG 3.b.2]

Health security

- International Health Regulations (IHR) core capacity index [SDG 3.d.1]

Governance

- Existence of national health sector policy/strategy/plan

Perioperative mortality rate

Abbreviated name	Perioperative mortality rate
Indicator name	Perioperative mortality rate
Domain	Health systems
Subdomain	Surgery/Quality of care – safety
Associated terms	Quality and safety of care
Definition	All-cause death rate prior to discharge among patients having one or more procedures in an operating theatre during the relevant admission.
Numerator	Number of deaths among patients having one or more procedures in an operating theatre during the relevant admission.
Denominator	Total number of surgical procedures.
Disaggregation/ additional dimension	By region/health facility, age, emergency and elective surgery
Method of measurement	Requires a register of operations (major surgery only) in hospitals and of survival status at discharge after operation. The indicator also generates information on the surgical volume (procedures performed in an operating theatre per 100 000 population per year). This is a rough indicator of access.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Output
Preferred data sources	Hospital registers linked to routine facility information systems
Other possible data sources	
Further information and related links	Organisation for Economic Co-operation and Development. Health at a Glance 2013: OECD Indicators, Paris: OECD Publishing; 2013 (http://dx.doi.org/10.1787/health_glance-2013-en, accessed 20 July 2017).

Obstetric and gynaecological admissions owing to abortion

Abbreviated name	Obstetric and gynaecological admissions owing to abortion
Indicator name	Obstetric and gynaecological admissions owing to abortion
Domain	Health systems
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – safety
Associated terms	Quality and safety of care
Definition	Percentage of admissions for (spontaneous or induced) abortion-related complications to service delivery points providing inpatient obstetric and gynaecological services, among all admissions (except those for planned termination of pregnancy). *Abortion* is the termination of a pregnancy before the fetus has attained viability – i.e. become capable of independent extra-uterine life. *Induced abortion* is the deliberate termination of a pregnancy before the fetus has attained viability – i.e. become capable of independent extra-uterine life. Spontaneous abortion is the spontaneous termination of a pregnancy before the fetus has attained viability – i.e. become capable of independent extra-uterine life – and is often referred to as a miscarriage.
Numerator	Admissions for abortion-related complications.
Denominator	All admissions, except those for planned termination of pregnancy.
Disaggregation/ additional dimension	
Method of measurement	
Method of estimation	
Measurement frequency	No specific frequency is recommended
Monitoring and evaluation framework	Output
Preferred data sources	Hospital registers linked to routine facility information systems
Other possible data sources	
Further information and related links	Reproductive health indicators. Guidelines for their generation, interpretation and analysis for global monitoring. Geneva: World Health Organization; 2006 (http://www.who.int/reproductivehealth/publications/monitoring/924156315x/en/, accessed 20 July 2017).

Institutional maternal mortality ratio

Abbreviated name	Institutional maternal mortality ratio
Indicator name	Institutional maternal mortality ratio (per 100 000 deliveries)
Domain	Health systems
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – safety
Associated terms	Quality and safety of care
Definition	Number of maternal deaths among 100 000 deliveries in health facilities/institutions.
Numerator	Number of maternal deaths in institutions.
Denominator	Total number of deliveries (all deliveries that include live and stillbirths) in institutions.
Disaggregation/ additional dimension	Age, cause of death, geographic location, parity
Method of measurement	This indicator is not the same as the maternal mortality ratio. Women giving birth outside the facility and seeking care and eventually dying at the facility should not be in the numerator. Labour ward registers, emergency admission registers, specialist ward registers. Regular quality control for completeness, assessment and misclassification.
Method of estimation	Number of maternal deaths among 100 000 deliveries in health facilities/institutions.
Measurement frequency	Annual
Monitoring and evaluation framework	Output
Preferred data sources	Routine facility information systems, maternal deaths surveillance and response systems
Other possible data sources	
Further information and related links	Countdown to 2015 decade report (2000–2010): taking stock of maternal, newborn and child survival. Geneva and New York (NY): World Health Organization/United Nations Children's Fund; 2010 (http://www.countdown2015mnch.org/reports-and-articles/previous-reports/2010-decade-report, accessed 20 July 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). The UNFPA Strategic Plan, 2014–2017. Report of the Executive Director. New York (NY): United Nations Population Fund; 2013 (http://www.unfpa.org/resources/strategic-plan-2014-2017, accessed 31 August 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Abbreviated name	Maternal death reviews
Indicator name	Maternal death review coverage (%)
Domain	Health systems
Subdomain	Reproductive, maternal, newborn, child and adolescent health/Quality of care – safety
Associated terms	Quality and safety of care
Definition	Percentage of maternal deaths occurring in the health facility that were audited and reviewed.
Numerator	Number of maternal deaths occurring in the health facility that were audited and reviewed.
Denominator	All maternal deaths in facilities.
Disaggregation/ additional dimension	Level of facility, major administrative regions
Method of measurement	Need for a clear definition of what qualifies as a "review". This may or may not include actions taken, if these can be measured objectively.
Method of estimation	
Measurement frequency	Annual (or more frequently)
Monitoring and evaluation framework	Output
Preferred data sources	Specific monitoring with routine facility information systems
Other possible data sources	
Further information and related links	Consultation on improving measurement of the quality of maternal, newborn and child care in health facilities. Geneva: World Health Organization/Partnership for Maternal, Newborn and Child Health; 2013 (http://www.who.int/maternal_child_adolescent/documents/measuring-care-quality/en/, accessed 31 August 2017). Keeping promises, measuring results. Commission on information and accountability for Women's and Children's Health. Geneva: World Health Organization; 2011 (http://www.who.int/topics/millennium_development_goals/accountability_commission/Commission_Report_advance_copy.pdf, accessed 20 July 2017).

ART retention rate

Abbreviated name	ART retention rate
Indicator name	ART retention rate
Domain	Health systems
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Quality and safety of care
Definition	Percentage of adults and children with HIV alive and on ART at 12 months (or 24, 36, 48 and 60 months) after initiating treatment among patients initiating ART during a specified time period.
Numerator	Number of people on ART at 12 months (or 24, 36, 48 and 60 months).
Denominator	Total number of people who initiated treatment and should have completed 12, 24, 36 (etc.) months.
Disaggregation/ additional dimension	Age: 1. Minimum for paper-based (routine): <15, 15+; 2. Annual data extraction of disaggregated data if not reported routinely: <5, 5–9, 10–14, 15–19, 20–24, 25–49, 50+; 3. Electronic system: 5-year age groups Breastfeeding, pregnancy, sex
Method of measurement	A cohort analysis can be used to estimate ART retention at specific points in time after initiation of treatment.
Method of estimation	
Measurement frequency	Annual (or more frequently)
Monitoring and evaluation framework	Output
Preferred data sources	Routine facility information system – ART register
Other possible data sources	
Further information and related links	Consolidated Strategic Information Guidelines for HIV in the Health Sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017). Global AIDS response progress reporting 2016: Construction of core indicators for monitoring the 2011 United Nations Political Declaration on HIV and AIDS. Geneva: Joint United Nations Programme on HIV/AIDS, 2016 (https://aidsreportingtool.unaids.org/static/docs/GARPR_Guidelines_2016_EN.pdf, accessed 20 July 2017).

TB treatment success rate

Abbreviated name	TB treatment success rate
Indicator name	TB treatment success rate
Domain	Health systems
Subdomain	Infectious disease/Quality of care – effectiveness
Associated terms	Quality and safety of care
Definition	Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to national health authorities during a specified period, usually one year.
Numerator	Number of TB cases registered in a specified time period that were successfully treated.
Denominator	Total number of TB cases registered in the same period.
Disaggregation/ additional dimension	Bacteriological confirmation status; drug resistance status (drug-susceptible and treated with first-line drugs, drug-resistant and treated with a second-line regimen); HIV status; treatment history (new and relapse, previously treated excluding relapse) Further disaggregations (e.g. by age and sex) feasible if case-based electronic surveillance is in place
Method of measurement	TB register and related quarterly reporting system, or electronic TB registers.
Method of estimation	Not applicable.
Measurement frequency	Annual
Monitoring and evaluation framework	Output
Preferred data sources	TB register and related quarterly routine facility information system (or electronic TB registers)
Other possible data sources	
Further information and related links	Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2). Geneva: World Health Organization; 2013 (http://www.who.int/tb/publications/definitions/en/, accessed 20 July 2017). Global tuberculosis report 2016. Geneva: World Health Organization; 2016 (http://www.who.int/tb/publications/global_report/en/, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Service-specific availability and readiness

Abbreviated name	Service-specific availability and readiness
Indicator name	Service-specific availability and readiness
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Quality and safety of care
Definition	Number of health facilities offering specific services per 10 000 population and meeting minimum service standards on the basis of a set of tracer criteria for specific services, etc.
Numerator	Number of facilities that offer and meet tracer criteria for specific services: • Family planning; • Antenatal care; • Basic emergency obstetric and neonatal care (BEmONC); • Comprehensive emergency obstetric and neonatal care (CEmONC), post-abortion care; • Essential newborn care; • Immunization; • Child health preventative and curative care; • Adolescent health services; • Life-saving commodities for women and children; • Malaria diagnosis or treatment; • Tuberculosis services; • HIV counselling and testing; • HIV/AIDS care and support services; • Antiretroviral prescription and client management; • Prevention of mother-to-child transmission of HIV; • Sexually transmitted infections diagnosis or treatment; • NCDs diagnosis or management: diabetes, cardiovascular disease, chronic respiratory disease, cervical cancer screening; • Basic and comprehensive surgical care, including caesarean section, laparotomy and open fracture; • Blood transfusion; • Laboratory capacity.
Denominator	Total number of health facilities and total number of facilities offering specific services.
Disaggregation/ additional dimension	Facility type, managing authority *Also: general service availability and readiness*
Method of measurement	Facility assessment.
Method of estimation	
Measurement frequency	Annual or biannual
Monitoring and evaluation framework	Output
Preferred data sources	Health facility assessments
Other possible data sources	
Further information and related links	Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Next generation indicators reference guide: planning and reporting. Version 1.2. Washington (DC): The President's Emergency Plan for AIDS Relief; 2013 (https://2009-2017.pepfar.gov/documents/organization/206097.pdf, accessed 30 August 2017).

Abbreviated name	Outpatient service utilization *(Also: inpatient admissions and surgical volume)*
Indicator name	Outpatient service utilization
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Utilization and access
Definition	Number of outpatient department visits per person per year.
Numerator	Total number of outpatient department visits per year.
Denominator	Total population.
Disaggregation/ additional dimension	Age, place of residence, sex *Also:* *Hospital (inpatient) admissions per 100 population per year* *Surgical volume per 100 000 population*
Method of measurement	
Method of estimation	Requires complete and reliable recording and reporting of the number of outpatient department visits by public and private facilities. Recall in population surveys can also be used.
Measurement frequency	
Monitoring and evaluation framework	Output
Preferred data sources	National population-based surveys, routine facility information systems
Other possible data sources	
Further information and related links	Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017).

Health facility density and distribution

Abbreviated name	Health facility density and distribution *(Also: access to emergency surgery)*
Indicator name	Health facility density and distribution
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Utilization and access
Definition	Total number of health facilities per 10 000 population.
Numerator	Number of facilities in public and private sectors.
Denominator	Total population.
Disaggregation/ additional dimension	Density of specific services, facility ownership, location (district, province, national), type *Also:* *Access to emergency surgery (defined as % of the population that can access, within 2 hours, a facility that can perform emergency caesarean section, laparotomy and open fracture fixation).*
Method of measurement	Availability (health facility assessment, census, master facility list). Geographical accessibility is the preferred indicator and is often measured by distance or travel time to a static health facility. A more objective and easier indicator uses facility databases to assess density and distribution.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Routine facility information system – facility database/master facility list, geospatial modelling
Other possible data sources	National population-based survey
Further information and related links	Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017).

Hospital bed density

Abbreviated name	Hospital bed density
Indicator name	Hospital bed density (per 10 000 population)
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Utilization and access
Definition	Total number of hospital beds per 10 000 population.
Numerator	Number of hospital beds (excluding labour and delivery beds).
Denominator	Total population.
Disaggregation/ additional dimension	Distribution (by province/district), ownership (public/private), type of bed
Method of measurement	A national database is usually maintained. Regular updates through surveys or facility censuses are needed.
Method of estimation	
Measurement frequency	Annual or biannual
Monitoring and evaluation framework	Input
Preferred data sources	Routine facility information systems/national database
Other possible data sources	Health facility census
Further information and related links	Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017).

Access to a core set of relevant essential medicines

Abbreviated name	Access to a core set of relevant essential medicines [SDG 3.b.3]
Indicator name	Access to a core set of relevant essential medicines (with 2 dimensions, availability and affordability)
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Utilization and access
Definition	Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis. *Availability:* will be calculated based on currently existing data on average proportion of medicines available in health facilities per country. *Affordability:* methodology is still under discussion. Data available on lowest price per drugs at facility level.
Numerator	Number of surveyed health facilities with the core set of relevant essential medicines available per country.
Denominator	Total number of surveyed facilities per country.
Disaggregation/ additional dimension	Facility type, facility managing authority (public/private), specific type of medicine/commodity (e.g. priority medicines for women and children, vaccines, ART, family planning, essential NCD medicines) WHO-recommended essential core list of medicines: bronchodilator inhaler, steroid inhaler, glibenclamide, metformin, insulin, angiotensin-converting-enzyme (ACE) inhibitor, calcium channel blocker, statin, aspirin, thiazide diuretic, beta-blocker, omeprazole tablet, diazepam injection, fluoxetine tablet, haloperidol tablet, carbamazepine tablet, amoxicillin tablet/capsule, amoxicillin suspension, ampicillin injection, ceftriaxone injection, gentamicin injection, oral rehydration salts, zinc sulfate. Essential NCD medicines: at least aspirin, a statin, an ACE inhibitor, thiazide diuretic, a long-acting calcium channel blocker, metformin, insulin, a bronchodilator and a steroid inhalant. Priority medicines for women and children: amoxicillin tablet/capsule, amoxicillin suspension, ampicillin injection, ceftriaxone injection, gentamicin injection, oral rehydration salts, zinc sulphate, oxytocin injection, magnesium sulphate injection. Suggested core list of medicines for pricing/affordability surveys: Salbutamol inhaler 100 mcg per dose (200 doses); beclometasone inhaler 100 mcg/dose (200 doses); glibenclamide 5 mg tablet; metformin 500 mg tablet; insulin regular 100 IU/ml, 10 ml vial; enalapril 5 mg tablet; amlodipine 5 mg tablet; simvastatin 20 mg tablet; aspirin 100 mg tablet; hydrochlorothiazide 25 mg tablet; carvedilol 12.5 mg tablet; omeprazole 20 mg tablet; diazepam 10 mg/2 ml injection; fluoxetine 20 mg tablet; haloperidol 5 mg tablet; carbamazepine 200 mg tablet; amoxicillin 500 mg capsule/tablet; amoxicillin 250 mg/5 ml suspension; ampicillin 500 mg injection; ceftriaxone 1 G vial; gentamicin 80 mg/2 ml injection; oral rehydration salts (sachet for 1 litre); zinc sulfate 2 0mg tablet; oxytocin injection (5 or 10 iu); magnesium sulfate 50% injection 10 ml vial.
Method of measurement	Current proposed methodology used by EMP and under review for the SDG indicator: On the basis of 2 existing and well-established methodologies, the WHO Service Availability and Readiness Assessment (SARA) and the WHO/Health Action International (HAI) Survey (details on these 2 methodologies below in this table), WHO has developed a data collection application, the EMP Price and Availability Monitoring Mobile App, to be used at facility level to collect information on availability and price of the agreed core basket of medicines. The EMP app can be used as one possible means of collecting information for this indicator. This data collection methodology uses a modular approach to the basket of medicines, with a core list for regular annual monitoring, as proposed in annex 1, and modular/add on lists for specific categories of diseases, conditions, country interests etc. The proposed core list is composed of essential medicines to be present at all time in primary health care facilities. The medicines in the list will be annually monitored and provide the basis for comparisons among countries. The countries will anyway have the possibility to add more modules to the data collection tool to cover medicines to be present at secondary/tertiary level facilities or special categories of medicines (i.e. cancer drugs, medicines for pain, controlled medicines, HIV/AIDS, antibiotics, etc.). The proposed methodology is similar to the WHO/HAI Methodology in which the following types of facilities are suggested for surveying in each country: • Capital Cities + 5 administrative areas • Public facilities (n=6+) – CMS (1), Tertiary Hospital (1), District Hospital (1), PHC (3) • Private (n=5) - pharmacies • Mission (n=5) – CMS (1), PHC (4) • Total Facilities Surveyed in Country: ~91 Each country will choose the facilities to survey using a randomized sampling from the national master facility list. The collected information refers to the availability of the product TODAY and to the price-to-patient for the CHEAPEST available product.
Method of estimation	
Measurement frequency	Annual or biannual
Monitoring and evaluation framework	Output
Preferred data sources	Special facility surveys
Other possible data sources	Routine facility information systems
Further information and related links	Draft comprehensive global monitoring framework and targets for the prevention and control of noncommunicable diseases, including a set of indicators. Agenda item A66/8, Sixty-sixth World Health Assembly, 20–28 May 2013. Geneva: World Health Organization; 2013 (http://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_8-en.pdf?ua=1, accessed 20 July 2017). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Abbreviated name	Health worker density and distribution [SDG 3.c.1]
Indicator name	Health worker density and distribution
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health workforce
Definition	Density of health workers per 10 000 population.
Numerator	Number of health workers.
Denominator	Total population.
Disaggregation/ additional dimension	Age, activity level, distribution, occupation, sex *Activity level:* active health workers (Practising health workers) are health workers who provide services for patients and communities; professionally active health workers (practising health workers and other health professionals whose qualification is a prerequiste for executing a job, e.g. education, research, public administration); licensed to practise (practising and other non-practising health workers who are registered and entitled to practise as health care professionals). *Note:* To "the best possible" to disaggregate by the 3 activity levels, if not possible, then at least to report as the density of practising health workers (active). *Distribution:* subnational administrative area (second level). *Age:* under 25; 25–34; 35–44, 45–54, 55–64, 65 years and above. *Occupation:* physicians (including generalists and specialists such as surgeons), nursing personnel, midwifery personnel, dentists, pharmacists) and progressively expanding to cover all health occupations.
Method of measurement	National database or registry of health workers, preferably at individual level.
Method of estimation	If there is a national database or registry, there should be regular assessment of completeness using census data, professional association registers, facility censuses, etc.
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Health worker registry
Other possible data sources	National health workforce database (aggregate), HRH Observatory, HRH information system
Further information and related links	Global strategy on human resources for health: Workforce 2030. Geneva: World Health Organization; 2016 (http://who.int/hrh/resources/pub_globstrathrh-2030/en/, accessed 20 July 2017). National health workforce accounts: a handbook – draft for consultation (http://www.who.int/hrh/documents/brief_nhwa_handbook/en/, accessed 11 August 2017). OECD, Eurostat, WHO-Europe (2015). Joint data collection on non-monetary health care statistics: Guidelines for completing the OECD/Eurostat/ WHO-Europe questionnaire 2015 (http://www.oecd.org/statistics/data-collection/Health%20Data%20-%20Guidelines%202.pdf , accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017). Handbook on monitoring and evaluation of human resources for health with special focus on low- and middle-income countries. Geneva: World Health Organization; 2009 (http://www.who.int/hrh/resources/handbook/en/, accessed 31 August 2017). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Output training institutions

Abbreviated name	Output training institutions
Indicator name	Density of graduates from health education and training programmes
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health workforce
Definition	Density of graduates from health education and training programmes during the last academic year per 10 000 population.
Numerator	Number of graduates from health education and training programmes in the past academic year.
Denominator	Total population.
Disaggregation/ additional dimension	Institutional ownership, occupation, place of birth (domestic/foreign), sex *Institutional ownership:* publicly-owned or controlled by a government unit or another pubic corporation (where control is defined as the ability to determine the general corporate policy); Not-for-profit privately owned (facilities that are legal or social entities created for the purpose of producing goods and services, whose status does not permit them to be a source of income, profit, or other financial gain for the unit(s) that establish, control or finance them); For-profit privately owned (facilities that are legal entities set up for the purpose of producing goods and services and are capable of generating a profit or other financial gain for their owners). *Occupation:* physicians (including generalists and specialists such as surgeons), nursing personnel, midwifery personnel, dentists, pharmacists) and progressively expanding to cover all health occupations.
Method of measurement	Databases on education and training statistics (with capacity data at institutional level); education and training institutions
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Administrative reporting systems
Other possible data sources	HRH Observatory, HRH information system
Further information and related links	National health workforce accounts: a handbook – draft for consultation (http://www.who.int/hrh/documents/brief_nhwa_handbook/en/, accessed 11 August 2017). OECD, Eurostat, WHO-Europe (2015). Joint data collection on non-monetary health care statistics: Guidelines for completing the OECD/Eurostat/ WHO-Europe questionnaire 2015 (http://www.oecd.org/statistics/data-collection/Health%20Data%20-%20Guidelines%202.pdf , accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). Handbook on monitoring and evaluation of human resources for health with special focus on low- and middle-income countries. Geneva: World Health Organization; 2009 (http://www.who.int/hrh/resources/handbook/en/, accessed 31 August 2017).

Abbreviated name	Birth registration [SDG 16.9.1]
Indicator name	Proportion of children under 5 years of age whose births have been registered with a civil authority, by age
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health information
Definition	Proportion of children under 5 years of age whose births have been registered with a civil authority.
Numerator	Number of children under age of five whose births are reported as being registered with the relevant national civil authorities.
Denominator	Total number of children under the age of five.
Disaggregation/ additional dimension	Age, geographic location, household wealth, place of residence, sex *Also: SDG: 17.19.2: Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration.*
Method of measurement	*Birth registration:* Questions are asked about registration status in household surveys. The numerator of this indicator includes children whose mother or care-taker says the birth has been registered (whether or not the birth certificate was seen by the interviewer). *Civil registration:* systems that are functioning effectively compile vital statistics that are used to compare teh estimated total number of births in a country with the absolute number of registered births during a given period.
Method of estimation	Number of children under age of five whose births are reported as being registered with the relevant national civil authorities divided by the total number of children under the age of five in the population x 100.
Measurement frequency	Annual (for civil registration); every 5 years for household surveys
Monitoring and evaluation framework	Input
Preferred data sources	National population-based survey
Other possible data sources	Civil registration and vital statistics systems
Further information and related links	Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). UNICEF Data: Monitoring the Situation of Children and Women. New York (NY): United Nations International Children's Emergency Fund (UNICEF); 2017 (https://data.unicef.org/, accessed 10 October 2017).

Death registration

Abbreviated name	Death registration [SDG 17.19.2]
Indicator name	Completeness of death registration
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health information
Definition	Percentage of deaths that are registered (with age and sex).
Numerator	Number of deaths registered.
Denominator	Total number of deaths.
Disaggregation/ additional dimension	Place of residence *Also: registered with cause (ICD)*
Method of measurement	Questions about presence of a death certificate are asked for all recent deaths (e.g. in the last year).
Method of estimation	WHO estimates coverage by taking the total number of deaths that have been registered with cause-of-death information in the vital registration system for a country and year and then dividing it by the total estimated deaths for that year for the national population. Administrative data sources could be used to obtain the number of death certificates issued and link those to the estimated number of deaths in a given time period.
Measurement frequency	
Monitoring and evaluation framework	Input
Preferred data sources	Civil registration and vital statistics systems
Other possible data sources	National population-based survey
Further information and related links	Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017).

Abbreviated name	Completeness of reporting by facilities *(Also: completeness and timeliness for notifiable diseases)*
Indicator name	Completeness of reporting by facilities (including weekly notifiable diseases reporting)
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health information
Definition	Percentage of facilities that submit reports within the required deadline.
Numerator	Number of reports received.
Denominator	Total number of expected reports.
Disaggregation/ additional dimension	Facility type, geographic location, managing authority, programme *Also: completeness and timeliness of weekly reporting of notifiable diseases (defined as percentage of expected weekly reports on notifiable diseases received – overall and within the required deadline).* *The list of diseases and conditions to be immediately and weekly reported is to be defined by each country depending on its epidemiological settings and resources. Weekly reporting provides data for monitoring trends of diseases or conditions to early detect and respond to epidemics. The completeness and timeliness of weekly reporting permits to assess the extent reporting sites participate as required to the public health surveillance system.* *Numerator: Number of weekly reports received / number of reports received within a required deadline.* *Denominator: Number of weekly reports expected.*
Method of measurement	The number of reports received from facilities (weekly/monthly) is divided by the expected number of reports from facilities. Districts also report on a monthly or quarterly basis to national levels, and the received number of reports can be related to the expected number in order to assess completeness.
Method of estimation	
Measurement frequency	Weekly (for surveillance); monthly; annually
Monitoring and evaluation framework	Input
Preferred data sources	Routine facility information systems (including surveillance)
Other possible data sources	
Further information and related links	Early detection, assessment and response to acute public health events: implementation of Early Warning and Response with a focus on Event-Based Surveillance. Interim version. World Health Organization; 2014 (http://www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/en/, accessed 20 July 2017). Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 20 July 2017). Standard foreign assistance indicators/standard foreign assistance master indicator list (MIL). Washington (DC): United States Agency for International Development (http://www.state.gov/f/indicators/index.htm, accessed 20 July 2017). Technical Guidelines for Integrated Disease Surveillance and Response in the African Region. World Health Organization Regional Office for Africa and the Centers for Disease Control and Prevention; 2010 (http://www.afro.who.int/en/integrated-disease-surveillance/, accessed 20 July 2017).

Total current expenditure on health as % of gross domestic product

Abbreviated name	Total current expenditure on health as % of gross domestic product *(Also: total capital expenditure on health as % of current + capital expenditure on health)*
Indicator name	Total current expenditure on health as percentage of gross domestic product
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Total current expenditure on health as a percentage of gross domestic product.
Numerator	Sum of all current expenditure on health (12-month period).
Denominator	Gross domestic product.
Disaggregation/ additional dimension	Financing source institutional unit, disease, main type of care, main type of provider, socioeconomic status, subnational level *Also: total capital expenditure on health as % of current + capital expenditure on health (defined as total capital expenditure on health as a percentage of current + capital expenditure on health).* *Numerator: Sum of all capital expenditure on health (HK) – (12-month period).* *Denominator: Current + capital expenditure on health (12 month).* *Disaggregation: Disease, financing source institutional unit, financing agent, provider.* *Method of measurement: Includes capital expenditures funded by donor (in kind or cash).*
Method of measurement	This includes all current expenditure, regardless of the source (domestic and donor funding).
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Administrative reporting systems
Other possible data sources	Other sources including estimation and modelling
Further information and related links	A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization; 2011 (http://who.int/health-accounts/methodology/sha2011.pdf?ua=1, accessed 20 July 2017).

Public domestic sources of current spending on health as % of current health expenditure

Abbreviated name	Public domestic sources of current spending on health as % of current health expenditure *(Also: private)*
Indicator name	Public domestic sources of current spending on health as % of current health expenditure
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Current expenditure on health publically funded as a share of total current expenditure on health (expressed as a % of total current expenditure on health). This is the sum of current health outlays funded from domestic public funds such as taxes, social contributions, compulsory private insurance contributions or other government revenues.
Numerator	Sum of all public domestic sources of current spending on health (12-month period).
Denominator	Total current expenditure on health.
Disaggregation/ additional dimension	Financing source institutional unit, disease, main type of care, main type of provider, socioeconomic status, subnational level *Also: private domestic sources of current spending on health as % of current health expenditure (defined as current expenditure on health funded by households and other private domestic sources of revenue expressed as a percentage of total current expenditure on health.)* *Numerator: Sum of all private domestic sources of current spending on health (12-month period).* *Denominator: Total current expenditure on health.* *Disaggregation: Financing source institutional unit, disease, main type of care, main type of provider, socioeconomic status, subnational level.*
Method of measurement	Excludes any donor funding passing through government and compulsory entities.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Administrative reporting systems
Other possible data sources	Other sources, including estimation and modelling
Further information and related links	A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization; 2011 (http://who.int/health-accounts/methodology/sha2011.pdf?ua=1, accessed 20 July 2017). Framework of actions for the follow-up to the Programme of Action of the International Conference on Population and Development beyond 2014. Report of the Secretary-General. New York (NY): United Nations; 2014 (http://www.unfpa.org/sites/default/files/pub-pdf/ICPD_beyond2014_EN.pdf, accessed 30 August 2017).

External source of current spending on health (% of current expenditure on health)

Abbreviated name	External source of current spending on health (% of current expenditure on health)
Indicator name	External sources of current spending on health as a percentage of current expenditure on health
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Current expenditure on health funded by external sources of revenue, expressed as a percentage of total current expenditure on health.
Numerator	Total external (rest of the world) funding (12-month period).
Denominator	Total current expenditure on health.
Disaggregation/ additional dimension	Disease, main type of care, main type of provider, socioeconomic status, subnational level
Method of measurement	This indicator traces the financing flows from external sources that provide the funds to public and private financing schemes. It includes resources in cash and in kind provided as concessional loans and grants. Health accounts track records of transactions without double counting in order to reach a comprehensive coverage. Resources are accounted for in the same period as when they are used by financing schemes.
Method of estimation	
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Survey and administrative reporting systems
Other possible data sources	Other sources, including estimation and modelling
Further information and related links	A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization; 2011 (http://who.int/health-accounts/methodology/sha2011.pdf?ua=1, accessed 20 July 2017).

Proportion of the population with impoverishing health expenditure

Abbreviated name	Proportion of the population with impoverishing health expenditure
Indicator name	Proportion of the population with impoverishing health expenditure
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Proportion of the population where a household's total consumption expenditure or income including household expenditure on health is greater than the poverty line but the household's total consumption expenditure or income excluding household expenditure on health is below the poverty line.
Numerator	Total number of people whose household's total consumption expenditure or income including household expenditure on health is greater than the poverty line but the household's total consumption expenditure or income excluding household expenditure on health is below the poverty line.
Denominator	Total number of people.
Disaggregation/ additional dimension	Subnational variables available in survey data. Information on household location (urban vs rural); the gender, age and education of the head of the household; and other socio-economic variables are useful for equity analysis.
Method of measurement	Household's expenditure on health are defined as formal and informal payments made at the time of getting any type of care (preventive, curative, rehabilitative, palliative or long term care) provided by any type of provider. These payments include the part not covered by a third party like an insurer. With this definition they correspond to out-of-pocket payments (OOPs–SHA 2011). The Headcount ratio of impoverishing health expenditure aim to capture the impact of OOPs on poverty. The idea is simple, OOPs result in fewer economic resources to spend on other basic necessities identified by a poverty line to such an extent that in some cases a household's position in relation to such pre-defined poverty line before and after spending out-of-pocket on health changes. Impoverishment can be computed as the difference in the incidence of poverty based on household's total consumption expenditure or income gross and net of out-of-pocket payments. Household's sample weight multiplied by the household size is used to obtain representative numbers per person. If the sample is self-weighting t only the household size is used as the weight. Poverty lines can be defined in different ways. At the global level to demonstrate the interdependency between SDG target 1.1 the eradication of extreme poverty and SDG target 3.8 (universal coverage), the international poverty line of $1.9 per day per capita using 2011 purchasing power parities (PPPs) for private consumption shall be used. Such a line tends to be too low for most upper-middle income and high income countries. It might therefore be useful to use a poverty line defined as 50% of median daily household consumption or income per capita. This type of relative line comes closest to the one used by OECD. Ultimately the choice of the poverty line should be tailored to inform evidence-based policy changes at global, regional and national levels. The use of national and regional poverty is critical to fully understand the impact of OOPs on poverty. This indicator is not an official SDG indicator per se but links SDG goal 3.8 on Universal health coverage directly to the first SDG goal on poverty eradication. It is an important complement to SDG indicator 3.8.2. To fully understand progress towards UHC it needs to be monitored jointly with SDG indicator 3.8.1.
Method of estimation	
Measurement frequency	Every 1–5 years depending on implementation of population-based household expenditure surveys led by national statistics offices
Monitoring and evaluation framework	Impact
Preferred data sources	Key requirements for the selection of a data source is the availability of information on both household total expenditure and household expenditures on health, from a national population-based survey; the three most common data sources are household budget surveys (HBS), household income and expenditure surveys (HIES), socio-economic or living standards surveys. These surveys are typically implemented by or in close collaboration with national statistical bureaus. Datasets from these surveys are always available to MoH, typically obtained through technical contacts in-country but may also be available publically or for direct purchase.
Other possible data sources	Health surveys with a module collecting expenditure data on both household total expenditure (including on food, housing and utilities) and household expenditure on health
Further information and related links	A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization; 2011 (http://who.int/health-accounts/methodology/sha2011.pdf?ua=1, accessed 20 July 2017). Analyzing health equity using household survey data. Washington, DC: World Bank Group; 2008 (http://www.worldbank.org/en/topic/health/publication/analyzing-health-equity-using-household-survey-data, accessed 20 July 2017). Division 06 of the UN Classification of Individual Consumption According to Purpose (COICOP) current structure (http://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06.1, accessed 11 August 2017). WHO is engaged in the revision of the current structure (https://unstats.un.org/unsd/class/meetings/TSG-COICOP-2017-1/default.html, accessed 11 August 2017). Sarah Thomson, Tams Evetovits, Jonathan Cylus, Melitta Jakab. Monitoring financial protection to assess progress towards universal health coverage in Europe. Public health panorama; 2(3): 357-66. Wagstaff A, van Doorslaer E. Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993–1998. Health Econ. 2003;12(11):921–34 (https://www.ncbi.nlm.nih.gov/pubmed/14601155, accessed 11 August 2017). Ke Xu. Distribution of health payments and catastrophic expenditures: methodology (discussion paper EIP/HSF/DP.05.2). Geneva: World Health Organization; 2005 (http://www.who.int/entity/health_financing/documents/dp_e_05_2-distribution_of_health_payments.pdf, accessed 22 May 2017). Xu K, Evans DB, Carrin G, Aguilar-Rivera AM, Musgrove P, Evans T. Protecting households from catastrophic health spending. Health Aff (Millwood) 2007; 26(4): 972-83.

Proportion of the population with large household expenditure on health as a share of total household consumption or income

Abbreviated name	Proportion of the population with large household expenditure on health as a share of total household consumption or income [SDG 3.8.2]
Indicator name	Proportion of the population with large household expenditure on health as a share of total household consumption or income
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Proportion of the population the population with large household expenditure on health as a share of total household expenditure or income.
Numerator	Total number of people with large household expenditure on health as a share of total household expenditure or income (i.e. greater than 10% and 25%).
Denominator	Total number of people.
Disaggregation/ additional dimension	Subnational variables available in survey data. Information on household location (urban vs rural); the gender, age and education of the head of the household; household composition (for example, the number of children under five years of age, people aged 60 or more years, the number of females); and other socio-economic variables are useful for equity analysis.
Method of measurement	Household expenditures on health are defined as described in page 137. They refer to out-of-pocket payments (OOPs–SHA 2011). OOPs are likely to expose households to financial hardship in particular when they exceed a pre-defined threshold of a household's budget or non-subsistence spending. When this happens they are characterized as being catastrophic. Within the SDG monitoring framework (SDG indicator 3.8.2), proportion of the population facing financial hardship is measured as the population weighted average of the number of households with "large household expenditures on health" (out-of-pocket payments) as a share of total household expenditure or income (household's budget). Large is defined as out-of-pocket payments exceeding 10% or 25% total household expenditure or income. Household's sample weight multiplied by the household size is used to obtain representative numbers per person. If the sample is self-weighting t only the household size is used as the weight. For more information about the SDG indicator 3.8.2 please see following references Wagstaff et al.; Analyzing health equity using household survey data). To fully understand progress towards UHC within the SDG monitoring framework, SDG indicator 3.8.2 should be monitored jointly with SDG indicator 3.8.1 on coverage of essential health services. SDGs indicators are part of a broader UHC monitoring agenda often tailored to specific regions and countries to enable appropriate policy responses. At the regional level and country level, there are other indicators used to measure catastrophic expenditures. At the regional level, there are other indicators used to measure financial hardship. These include a definition of catastrophic out-of-pocket payments (large health expenditures) in relation to non-subsistence spending in addition to indicator 3.8.2. For a definition of non-subsistence spending based on a normative level of food consumption see following references (Xu et al 2003; Xu 2005). For the WHO-EURO definition based on subsistence spending on food, housing and utilities and other regional refinements see reference (Thomson et al.)
Method of estimation	The global incidence of the proportion of the population with "large household expenditures on health" (out-of-pocket payments) as a share of total household expenditure or income (household's budget) using both thresholds 10% and 25% is estimated as the population weighted average of the country level share of people with catastrophic expenditures for a reference year. Incidence at the country level for the reference year is estimated using different methods depending upon the availability of information for that country around or at the reference year.
Measurement frequency	Every 1–5 years depending on implementation of population-based household expenditure surveys led by national statistics offices
Monitoring and evaluation framework	Impact
Preferred data sources	Key requirements for the selection of a data source is the availability of information on both household total expenditure and household expenditures on health, from a population based survey nationally representative; the three most common data sources are household budget surveys (HBS), household income and expenditure surveys (HIES), socio-economic or living standards surveys. These surveys are typically implemented by or in close collaboration with national statistical bureaus.
Other possible data sources	Health surveys with a module collecting expenditure data on both household total expenditure (including on food, housing and utilities) and household expenditure on health

Further information and related links

A system of health accounts – 2011 edition. Geneva: Organisation for Economic Co-operation and Development/Eurostat/World Health Organization; 2011 (http://who.int/health-accounts/methodology/sha2011.pdf?ua=1, accessed 20 July 2017).

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Division 06 of the UN Classification of Individual Consumption According to Purpose (COICOP) current structure (http://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06.1, accessed 11 August 2017). WHO is engaged in the revision of the current structure (https://unstats.un.org/unsd/class/meetings/TSG-COICOP-2017-1/default.html, accessed 11 August 2017).

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Xu K, Evans DB, Carrin G, Aguilar-Rivera AM, Musgrove P, Evans T. Protecting households from catastrophic health spending. Health Aff (Millwood) 2007; 26(4): 972-83.

Total net official development assistance to medical research and basic health sectors

Abbreviated name	Total net official development assistance to medical research and basic health sectors [SDG 3.b.2]
Indicator name	Total net official development assistance to medical research and basic health sectors
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health financing
Definition	Total net official development assistance (ODA) to the medical research and basic health sectors is currently measured by the gross disbursements of total ODA from all donors to medical research and basic health sectors.
Numerator	
Denominator	
Disaggregation/ additional dimension	Donor, health sub-sector, recipient country, type of aid, type of finance
Method of measurement	The sum of ODA flows from all donors to developing countries for medical research and basic health.
Method of estimation	
Measurement frequency	
Monitoring and evaluation framework	Input
Preferred data sources	OECD/DAC
Other possible data sources	
Further information and related links	Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World health statistics 2017. Geneva: World Health Organization; 2017 (http://apps.who.int/iris/bitstream/10665/255336/1/9789241565486-eng.pdf?ua=1, accessed 20 July 2017).

International Health Regulations (IHR) core capacity index

Abbreviated name	International Health Regulations (IHR) core capacity index [SDG 3.d.1]
Indicator name	International Health Regulations (IHR) capacity and health emergency preparedness
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Health security
Definition	Percentage of attributes of 13 core capacities that have been attained at a specific point in time. The 13 core capacities are: (1) National legislation, policy and financing; (2) Coordination and National Focal Point communications; (3) Surveillance; (4) Response; (5) Preparedness; (6) Risk communication; (7) Human resources; (8) Laboratory; (9) Points of entry; (10) Zoonotic events; (11) Food safety; (12) Chemical events; (13) Radionuclear emergencies.
Numerator	Number of attributes attained.
Denominator	Total number of attributes.
Disaggregation/ additional dimension	
Method of measurement	Based on a set of attributes of 13 core capacities from a standard WHO instrument.
Method of estimation	
Measurement frequency	Biannual
Monitoring and evaluation framework	Output
Preferred data sources	Key informant survey
Other possible data sources	
Further information and related links	IHR core capacity monitoring framework: checklist and indicators for monitoring progress in the development of IHR core capacities in States Parties. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/84933/1/WHO_HSE_GCR_2013.2_eng.pdf, accessed 20 July 2017). Sustainable Development Goals indicators definitions, rationale, concepts and sources. In: United Nations Sustainable Development Goals [website]. New York (NY): United Nations; 2017 (https://unstats.un.org/sdgs/, accessed 20 July 2017). World Health Assembly governing body documentation: official records. Geneva: World Health Organization (http://apps.who.int/gb/or/, accessed 20 July 2017).

Existence of national health sector policy/strategy/plan

Abbreviated name	Existence of national health sector policy/strategy/plan
Indicator name	Existence of a comprehensive national health sector policy/ strategy/ plan with goals and targets updated within the last 5 years
Domain	Health systems
Subdomain	Health system strengthening (HSS)
Associated terms	Governance
Definition	Existence of a comprehensive national health sector policy/ strategy/ plan with goals and targets, updated within the last 5 years.
Numerator	n/a
Denominator	n/a
Disaggregation/ additional dimension	n/a
Method of measurement	n/a
Method of estimation	WHO collects data through regular national and regional consultations maintains the Global Database on National health sector policy/ strategy/ plans which includes a repository of the national sector policy strategy and plans. The indicator is verified through the regional office as part of WHO's Global Programme of Work 2014-2019. Predominant type of statistics: unadjusted
Measurement frequency	Annual
Monitoring and evaluation framework	Input
Preferred data sources	Data is collected at the national level
Other possible data sources	
Further information and related links	Country Planning Cycle Database (http://www.nationalplanningcycles.org/, accessed 15 October 2017).

Additional indicators

The additional indicators are indicators which are considered relevant and desirable but did not meet all the criteria mentioned above or currently have serious measurement challenges.

Indicator name	Definition	Disaggregation / additional dimensions
Health status		
Mortality by age and sex		
Life expectancy at age 60 years	The average number of years that a person of 60 years of age could expect to live if exposed to the sex- and age-specific death rates prevailing at the time of his/her 60th birthday	Sex
Healthy life expectancy at birth	The average number of years that a person can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury	Sex
Mortality by cause		
Distribution of causes of death in health facilities	Percentage distribution of main causes of death in health facilities, expressed as a percentage of total deaths in health facilities	Age (under 5, 5+ years), vaccine-preventable diseases
Conflict-related deaths per 100 000 population [SDG 16.1.2]	Estimated number of deaths per 100 000 population (of the respective age group and sex), for the year indicated	Age, cause, sex
Morbidity		
Leading outpatient diagnosis	Rate per 1000 population and percentage distribution of the main diagnostic categories	Age (under 5, 5+ years), sex
Leading inpatient admissions by diagnosis	Number, rate per 1000 population and percentage distribution of the main diagnostic categories	Age (under 5, 5+ years), sex
Prevalence and incidence rate of neglected tropical diseases	Number of prevalent or new cases of neglected tropical diseases per 100 000 population	Age group, disease, sex
Prevalence of severe mental disorders	Number of cases of severe mental disorders per 100 000 population	Age, sex, type of disorder
Prevalence of severe visual impairment and blindness	Number of persons living with severe visual impairment and blindness per 100 000 population	By cause, age, sex
Risk factors		
Nutrition		
Women of reproductive age who are underweight	Percentage of women aged 15–49 years with low BMI (< 18.5 kg/m2)	Place of residence, socioeconomic status
Minimum diet diversity (MDD) for children 6–23 months of age	Proportion of children 6–23 months of age who receive foods from ≥5 food groups	

Indicator name	Definition	Disaggregation / additional dimensions
Urinary iodine concentration in children aged 6–12 years	Median urinary iodine concentration (µg/L) in children aged 6–12 years	Place of residence, sex, socioeconomic status
Households that have iodized salt	Percentage of households that have iodized salt (> 15 ppm)	Place of residence, socioeconomic status *Also: compute by children aged < 5 years living in households with iodized salt*
Lifestyle		
Prevalence of heavy episodic drinking	Percentage of adults (15+ years) who have had at least 60 grams or more of pure alcohol on at least one occasion weekly (approximately equivalent to standard alcoholic drinks)	Place of residence, sex, socioeconomic status *Also: adolescents (5 or more standard drinks)*
Abstainers	Percentage of adults (15+ years) in a given population who have not consumed any alcohol during their lifetime	Age, place of residence, sex, socioeconomic status *Also: not in last 12 months*
Low consumption of fruit and vegetables among adults	Percentage of adults (aged 18+ years) who eat less than five servings of fruit and/or vegetables (400 grams) on average per day (age-standardized)	Place of residence, sex, socioeconomic status
Total energy intake from saturated fatty acids	Age-standardized mean percentage of total energy intake from saturated fatty acids in persons aged 18+ years	Place of residence, sex, socioeconomic status
Raised cholesterol among adults	Age-standardized prevalence of raised total cholesterol among persons aged 18+ years (defined as total cholesterol ≥ 5.0 mmol/L or 190 mg/dL), and mean total cholesterol	Place of residence, sex, socioeconomic status
Risk factors infections		
Safe injecting practices among injecting drug users	Needles/syringes distributed per person who injects drugs per year	Age (<25/25+ years), sex
Multiple sexual partnerships	Percentage of women and men aged 15–49 years who have had sexual intercourse with more than one partner in the last 12 months	Age (15–19, 20–24 and 25–49), sex
Discriminatory attitudes towards people living with HIV	Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV in two standard survey questions (respond "No" or "It depends" to any of two questions)	Age, HIV status, sex
Risk factors injuries		
Seat-belt wearing rate	Percentage of car occupants (i.e. drivers and passengers) who use seat-belts	
Helmet wearing rate	Percentage of motor occupants (i.e. drivers and passengers) who use helmets	
HIV post-exposure prophylaxis – rape survivors		

Indicator name	Definition	Disaggregation / additional dimensions
Reproductive, maternal, newborn, child and adolescent		
Informed decisions by women [SDG 5.6.1]	Proportion of women aged 15–49 who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care	
Sexual and reproductive health (SRH) knowledge (ages 15–24)	Proportion of men and women aged 15–24 with basic knowledge about sexual and reproductive health services and rights	
Service coverage		
Reproductive, maternal, newborn, child and adolescent health		
Timing of first antenatal visit	Percentage of pregnant women aged 15–49 years who had their first antenatal visit in the first trimester (before 14 weeks of gestation)	Age, place of residence, socioeconomic status
Antenatal iron supplementation	Proportion of women who consumed any iron-containing supplements during the current or past pregnancy within the last 2 years	Source of supplements (i.e. provided by the health system/care organization or purchased), by relevant sociodemographic stratifiers where available (e.g. urban/rural, wealth quintile, mother's education) and other social determinants (e.g. distance to nearest care facility)
Availability of national-level provision for counselling services in public health and/or nutrition programmes	Availability of a national programme that include provision for delivering breastfeeding counselling services to mothers of infants 0–23 months of age through health systems or other community-based platforms	Child age (0–11 months and 12–23 months), sociodemographic (e.g. urban/rural, wealth quintile, mother's education, distance to nearest care facility), type of provider (e.g. paid/unpaid)
Children under five with diarrhoea receiving oral rehydration therapy (ORT) and continued feeding during illness	Percentage of children under 5 years of age with diarrhoea in the last two weeks receiving ORT (oral rehydration salts, recommended home fluids or increased fluids) and continued feeding during illness	Place of residence, sex, socioeconomic status
Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being [SDG 4.2.1]	The proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being is currently being measured by the percentage of children aged 36–59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, socio-emotional and learning	
HIV Testing		
HIV-testing in key populations	Number of people tested HIV positive linked to care in the last 12 months (disaggregated by key population)	Key population
Pregnant women counselled and tested for HIV	Percentage of women who were counselled during antenatal care for their most recent pregnancy, accepted an offer of testing and received their test results, among all women who were pregnant at any time in the two years preceding the survey	

Indicator name	Definition	Disaggregation / additional dimensions
Prevention of mother-to-child transmission during breastfeeding	Percentage of HIV-exposed breastfed infants whose mothers are receiving antiretroviral therapy at 3 months (and 12 months)	
Early infant testing coverage	Percentage of HIV-exposed infants born within the last 12 months who received an HIV test within 2 months of birth	Test result
Cotrimoxazole prophylaxis among HIV-positives who are eligible	Percentage of eligible HIV-positive individuals who receive cotrimoxazole (CTX) prophylaxis according to national guidelines	
Needles/syringes distribution	Needles/syringes distributed per person who injects drugs	
Coverage of prevention programmes among key populations	Percentage of sex workers/men who have sex with men/people who inject drugs exposed to HIV prevention programmes (respond "Yes" to two specific exposure questions in surveys)	Age, sex
Male circumcision	Percentage of men aged 15–49 years who are circumcised	Age, place of residence, sex, sociocultural variables, socioeconomic variables
Malaria		
Household ownership of insecticide treated net (ITN)	Percentage of households with at least one ITN	Place of residence, socioeconomic status
Treatment-seeking behaviour for children with fever	Percentage of children under 5 years of age with fever in the previous two weeks for whom advice or treatment was sought	Place of care-seeking (public, private)
Access to insecticide treated net (ITN) in the household	Percentage of population at risk with access to an ITN in the household	Each ITN is assumed to be used by two people
Appropriate treatment among children treated for malaria	Percentage receiving first-line antimalarial treatment among those children under 5 years of age with fever in the last two weeks who received any antimalarial	
Annual blood examination rate	Annual blood examination rate	
Malaria diagnostic testing rate	Percentage of suspected malaria cases that had a diagnostic test	
Malaria test positivity rate	Percentage of confirmed malaria cases (by microscopy or rapid diagnostic test) among all tested cases	
Neglected tropical diseases		
Coverage of recommended interventions for case management of selected neglected tropical diseases	Proportion of the population requiring interventions for case management neglected tropical diseases that benefited from these recommended interventions	Age group, disease, sex
Coverage of preventive chemotherapy for trachoma	Proportion of the population living in endemic areas requiring preventive chemotherapy for trachoma that received treatment	Age group, sex
Coverage of preventive chemotherapy for foodborne trematode infections	Proportion of the population living in endemic areas requiring preventive chemotherapy for foodborne trematode infections that received treatment	Age group, sex

Indicator name	Definition	Disaggregation / additional dimensions
Noncommunicable diseases (NCDs)		
Drug therapy and counselling to prevent heart attacks and stroke	Percentage of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular disease risk ≥ 30%, including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	Age, sex
Cataract surgical rate and coverage	Percentage of people who received cataract surgery among those in need in a specified time period	Age, sex
Use of assistive devices among people with disabilities	Percentage of people with disabilities who have and use appropriate assistive devices	
Health systems		
Quality and safety of care		
Cause-specific case fatality rates for major causes	Cause-specific deaths per 100 admissions for major causes and overall in health facilities	Age (under 5, 5+ years), overall and cause-specific, facility-specific *Also: Death rate of hospitalized children under 5 years* *Definition: Deaths in under 5 children as a proportion of all admissions of children under 5* *Disaggregation: Age, sex, cause*
TB case fatality ratio (CFR)	TB mortality (including HIV-positive TB deaths) divided by TB incidence in the same year, expressed as a percentage	Age, sex, geographical area
Antenatal care: blood pressure measured	Percentage of women who had blood pressure measured at the last antenatal visit	Age, place of residence, socioeconomic status, type of facility
Antenatal care: tested for syphilis	Percentage of women attending antenatal care services who were tested for syphilis	Age, place of residence, socioeconomic status, type of facility
Antenatal care: treated for syphilis	Percentage of women attending antenatal care services who tested positive for syphilis and received treatment	Age, first/any visit, place of residence, socioeconomic status *Also: add whose sexual contacts were traced*
Prevention of postpartum haemorrhage in health facilities	Percentage of women receiving oxytocin immediately after the birth of the baby before the birth of the placenta, irrespective of mode of delivery	Age, place of residence
Severe systemic infection/sepsis in the postnatal period	Percentage of women in health facilities with severe systemic infection/sepsis in the postnatal period, including readmissions (after birth in a facility)	
Newborns receiving essential newborn care	Percentage of newborns who received all four elements of essential newborn care: immediate and thorough drying, immediate skin-to-skin contact, delayed cord clamping, and initiation of breastfeeding in the first hour	
Treatment for neonatal sepsis	Newborns with suspected severe bacterial infection who receive appropriate antibiotic therapy	

Indicator name	Definition	Disaggregation / additional dimensions
Feeding of children born to HIV-positive mothers	Percentage of children born to HIV-positive women who are feeding in line with national guidelines on HIV and infant feeding	
Pneumonia treatment (children)	Percentage of children who are correctly prescribed an antibiotic for pneumonia	Age, place of residence, socioeconomic status, type of facility
Male partner testing for HIV among women attending antenatal care	Percentage of pregnant women attending antenatal care whose male partner was tested for HIV in the last 12 months	
Knowledge of HIV transmission among young women and men	Percentage of young women and men (15–24 years) who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Age (15–19, 20–24 years), place of residence, sex, socioeconomic status
Cancer survival rates	Percentage of persons with cancer who survive at least 5 years after diagnosis, after correction for background mortality in a given time period (cohort)	By cancer site
30-day hospital case fatality rate – acute myocardial infarction (stroke)	Percentage of hospital inpatients with primary diagnosis of acute myocardial infarction (stroke) who died within 30 days after admission	
Postoperative sepsis	Postoperative sepsis as a percentage of all surgeries	Age, sex
Postoperative pulmonary embolism/ thrombosis rate	Percentage of cases of postoperative pulmonary embolus or deep vein thrombosis among all major surgeries	
Adverse event reporting and learning for patient safety	Percentage of hospitals with systems for adverse event reporting and learning for patient safety	
Hospital readmission rates	Percentage of unplanned and unexpected hospital readmissions for tracer conditions (acute myocardial infarction, pneumonia, asthma, diabetes)	
Waiting time to elective surgery	Average inpatient waiting time for elective (i.e. non-urgent) surgeries – cataract, coronary angioplasty, hip replacement, knee replacement)	
Patient satisfaction	Percentage of survey respondents who report to be satisfied or very satisfied with the health services	Age, place of residence, sex, socioeconomic status
Neonatal death reviews	Percentage of neonatal deaths occurring in the facility that were audited	*Also: perinatal death reviews*
General service readiness	Percentage of health facilities that have a basic set of equipment and amenities present on the day of the visit	Facility type, managing authority *Also: average number of items per facility*
Health care workers' hand hygiene compliance	Percentage of health facilities monitoring hand hygiene compliance of health workers	
Hospital readmission rates due to surgical site infection	Rate of readmission due to surgical site infection	Age, institutions, socioeconomic status
Ratio of sentinel events reported to total adverse events reported	Ratio of sentinel events reported to total adverse events reported	
Hospital admission with ambulatory sensitive conditions	Rate of admission with ambulatory sensitive conditions, including asthma, or chronic obstructive pulmonary diseases, congestive heart failure, hypertension, and diabetes per 100 000 population in a specified year	Age, institutions, sex, socioeconomic status

Indicator name	Definition	Disaggregation / additional dimensions
Traditional and complementary medicine outpatient service utilization	Percentage of outpatient visits to traditional and complementary medicine facilities/facilities offering traditional and complementary medicine services	
Pain management with traditional and complementary medicine	Percentage of patients on pain medications with adjunctive traditional and complementary medicine services to assist in pain relief	
Access		
Hospital (inpatient) admissions	Hospital (inpatient) admissions per population per year, relative to a maximum threshold of 8 per 100 population per year	
Bed occupancy rate	Percentage of available beds that have been occupied over a given period	*Also: average length of stay (for selected interventions)*
Surgery rate	Number of surgeries by type (minor/major, specifics) per 1000 population	Age, place of residence, sex, socioeconomic status
Caesarean section rate	Percentage of deliveries by caesarean section	Age, place of residence, socioeconomic status
Medical devices/essential technologies	Density of medical equipment per million population	By type (magnetic resonance imaging, computed tomography [CT] scanners)
Access to palliative care	Consumption of morphine-equivalent strong opioid analgesics (excluding methadone) per death from cancer in a given time period	
Opioid agonist pharmacotherapy used for the treatment of opioid dependence (maintenance)	Availability of opioid agonist pharmacotherapy (such as with methadone, buprenorphine or buprenorphine/naloxone) for maintenance treatment of opioid dependence	
Health workforce		
Turnover rate	Ratio of active health workers leaving the health sector labour market to total stock of active health workers	Occupation (physicians, nursing personnel, midwifery personnel, dentists, pharmacists) and progressively expanding to cover all health occupations), sex
National human resources for health self-sufficiency	Percentage of foreign-trained, non-national health workers (dentists, midwifery personnel, nursing personnel, pharmacists, physician generalists, physician specialists, physician associates)	Occupation (physicians, nursing personnel, midwifery personnel, dentists, pharmacists) and progressively expanding to cover all health occupations), sex

Indicator name	Definition	Disaggregation / additional dimensions
Health policy		
Monitoring progress of national health plans	Proportion of countries have monitored the progress of their national health policy/strategy/plan regularly	
Alignment of ODA to national budget	Proportion of countries that have at least 80% of ODA aligned to their national budget	
Countries with Universal Health Coverage (UHC) legislation	Number of countries who have passed legislation on UHC: (i) Enabling all facets of UHC; (ii) Removing barriers to achieving UHC	
Proportion of population below the poverty line [SDG 1.1.1]	Percentage of the population living on less than $1.90 a day at 2011 international prices. The 'international poverty line' is currently set at $1.90 a day at 2011 international prices	
Research and development expenditure [SDG 9.5.1]	Metadata for SDG 9.5.1 are under development at the SDG Indicators repository	
Laws against discrimination	Metadata for laws against discrimination are under development	
Effective monitoring frameworks [SDG 17.16.1]	Number of countries reporting progress in multi stakeholder monitoring frameworks that track the implementation of development effectiveness commitments supporting the achievement of sustainable development goals (SDGs)	
Treaties for women's, children's and adolescents' health and rights	Metadata for treaties for women's, children's and adolescents' health and rights are under development	
Country laws - sexual and reproductive health (SRH) [SDG 5.6.2]	Number of countries with laws and regulations that guarantee women aged 15-49 access to sexual and reproductive health care, information and education	
Number of countries with legislation / regulations fully implementing the International Code of Marketing of Breast-milk Substitutes (resolution WHA 34.22) and subsequent relevant resolutions adopted by the Health Assembly	This indicator is defined as whether the country has legislation/regulations fully implementing the International Code of Marketing of Breast-milk Substitutes (resolution WHA 34.22) (92, 93) and subsequent relevant Health Assembly resolutions	
Number of countries with maternity protection laws or regulations in place	This indicator is defined as whether the country has maternity protection laws or regulations in place consistent with the International Labour Organization's (ILO) Maternity Protection Convention 183 and Recommendation 191	
Humanitarian risk management index	Metadata for humanitarian risk management index are under development	
Health information		
Percentage of immediately notifiable diseases reports responded to immediately	Metadata for immediately notifiable diseases reports responded to immediately are under development	

Annex 1

SDG health and health-related indicators

The SDG health and health-related indicators included in the 2018 *Global Reference List* are derived from the 2017 Revised List of global Sustainable Development Goal indicators [11]. SDG indicators in the core list are summarized below in bold. Others are in the additional list.

SDG goals and targets	SDG indicators
Goal 1. End poverty in all its forms everywhere	
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)
1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	**1.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population**
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	**2.2.1 Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age** **2.2.2 Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)**
Goal 3. Ensure healthy lives and promote well-being for all at all ages	
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	**3.1.1 Maternal mortality ratio** **3.1.2 Proportion of births attended by skilled health personnel**
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	**3.2.1 Under-five mortality rate** **3.2.2 Neonatal mortality rate**
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	**3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations** **3.3.2 Tuberculosis incidence per 100,000 population** **3.3.3 Malaria incidence per 1,000 population** **3.3.4 Hepatitis B incidence per 100,000 population** **3.3.5 Number of people requiring interventions against neglected tropical diseases**
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	**3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease** **3.4.2 Suicide mortality rate**

[11] Revised list of global Sustainable Development Goal indicators. New York (NY): United Nations Department of Economic and Social Affairs; 2017 (https://unstats.un.org/sdgs/indicators/indicators-list/, accessed 11 August 2017).

SDG goals and targets	SDG indicators
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	**3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders** **3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol**
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	**3.6.1 Death rate due to road traffic injuries**
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	**3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods** **3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group**
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	**3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)** **3.8.2 Proportion of population with large household expenditures on health as a share of total household expenditure or income**
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	**3.9.1 Mortality rate attributed to household and ambient air pollution** **3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)** **3.9.3 Mortality rate attributed to unintentional poisoning**
3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate	**3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older**
3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	**3.b.1 Proportion of the target population covered by all vaccines included in their national programme** **3.b.2 Total net official development assistance to medical research and basic health sectors** **3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis**

SDG goals and targets	SDG indicators
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States	**3.c.1 Health worker density and distribution**
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	**3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness**
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	
4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex
Goal 5. Achieve gender equality and empower all women and girls	
5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation	**5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age** **5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence**
5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation	**5.3.1 Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18** **5.3.2 Proportion of girls and women aged 15-49 years who have undergone female genital mutilation/cutting, by age**
5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care 5.6.2 Number of countries with laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education
Goal 6. Ensure availability and sustainable management of water and sanitation for all	
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	**6.1.1 Proportion of population using safely managed drinking water services**
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	**6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water**

SDG goals and targets	SDG indicators
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	
7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	**7.1.2 Proportion of population with primary reliance on clean fuels and technology**
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	**8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status**
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	9.5.1 Research and development expenditure as a proportion of GDP
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	
11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	**11.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population**
11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	**11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)**
Goal 13. Take urgent action to combat climate change and its impacts	
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	**13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population**

SDG goals and targets	SDG indicators
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
16.1 Significantly reduce all forms of violence and related death rates everywhere	**16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age**
	16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause
16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children	**16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18**
16.9 By 2030, provide legal identity for all, including birth registration	**16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age**
Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	
17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries	17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals
	17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration

Annex 2

Reference indicator lists

The following list includes references for global frameworks and strategies and other key documents from which the core indicators are derived.

Health security

International Health Regulations (2005): second edition. Geneva: World Health Organization; 2008 (http://www.who.int/ihr/publications/9789241596664/en/, accessed 12 January 2018).

Health systems

Global strategy on human resources for health: workforce 2030. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/250368/1/9789241511131-eng.pdf?ua=1, accessed 12 January 2018).

Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva: World Health Organization; 2010 (http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf?ua=1, accessed 12 January 2018).

Tracking universal health coverage. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/report/2017_global_monitoring_report.pdf?ua=1, accessed 12 January 2018).

HIV and other sexually transmitted infections

Consolidated strategic information guidelines for HIV in the health sector. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/164716/1/9789241508759_eng.pdf?ua=1, accessed 20 July 2017).

Global health sector strategy on sexually transmitted infections, 2016–2021. Geneva: World Health Organization; 2016 (http://www.who.int/reproductivehealth/publications/rtis/ghss-stis/en/, accessed 3 October 2017).

UNAIDS Global Aids Monitoring 2018: Indicators for monitoring the 2016 United Nations Political Declaration on Ending AIDS. Geneva: Joint United Nations Programme on HIV/AIDS; 2017 (http://www.unaids.org/sites/default/files/media_asset/global-aids-monitoring_en.pdf, accessed 21 December 2017).

Immunization

Global vaccine action plan 2011–2020. Geneva: World Health Organization; 2013 (http://www.who.int/immunization/global_vaccine_action_plan/GVAP_doc_2011_2020/en/, accessed 12 January 2018).

Malaria

Global technical strategy for malaria 2016–2030. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/176712/1/9789241564991_eng.pdf, accessed 12 January 2018).

Mental Health

Mental Health action plan 2013–2030. Geneva: World Health Organization; 2008 (http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf?ua=1, accessed 12 January 2018).

Noncommunicable diseases

WHO noncommunicable diseases global monitoring framework: indicator definitions and specifications. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF_Indicator_Definitions_FinalNOV2014.pdf?ua=1, accessed 11 August 2017).

Nutrition – maternal, children and young child

Indicators for the global monitoring framework on maternal, infant and young child nutrition. Geneva: World Health Organization; 2015 (http://www.who.int/nutrition/topics/proposed_indicators_framework/en/, accessed 11 August 2017).

Public health and environment

WASH in the 2030 agenda: new global indicators for drinking water, sanitation and hygiene. Geneva and New York (NY): World Health Organization and the United Nations Children's Fund; 2017 (https://washdata.org/report/jmp-2017-wash-in-the-2030-agenda, accessed 11 August 2017).

Reproductive, maternal, newborn, child and adolescent health

Global Strategy for women's, children's and adolescents' health 2016–2030. Geneva, World Health Organization; 2015 (http://www.who.int/life-course/partners/global-strategy/global-strategy-2016-2030/en/, accessed 11 August 2017).

The global elimination of congenital syphilis: rationale and strategy for action. Geneva: World Health Organization; 2007 (http://www.who.int/reproductivehealth/publications/rtis/9789241595858/en/, accessed 3 October 2017).

Surgery

Meara JG, Leather AJM, Hagander L, Alkire BC, Alonso N, Ameh EA et al. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. The Lancet Commissions. Lancet 2015; 386: 569–624. (http://docs.wixstatic.com/ugd/346076_ee70c0ea4fe54f3ca2b02dcc73c19afe.pdf, accessed 12 January 2018).

Tuberculosis

A guide to monitoring and evaluation for collaborative TB/HIV activities (2015 revision). Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/150627/1/9789241508278_eng.pdf?ua=1&ua=1, accessed 20 July 2017).

WHO End TB Strategy. In: WHO Tuberculosis (TB) [website]. Geneva: World Health Organization; 2017 (http://www.who.int/tb/post2015_strategy/en/, accessed 12 January 2018).

Others

Organisation for Economic Co-operation and Development. Health at a Glance 2017: OECD indicators. Paris: OECD Publishing; 2017 (http://www.oecd-ilibrary.org/docserver/download/8117301e.pdf?expires=1515794545&id=id&accname=guest&checksum=756C39594E0D033E2D39366E00F1FFF7, accessed 12 January 2018).

Revised list of global Sustainable Development Goal indicators. New York (NY): United Nations Department of Economic and Social Affairs; 2017 (https://unstats.un.org/sdgs/indicators/indicators-list/, accessed 11 August 2017).

Sendai framework for disaster risk reduction 2015–2030. New York (NY): United Nations; 2015 (https://www.unisdr.org/files/43291_sendaiframeworkfordrren.pdf, accessed 20 July 2017).

The Global Reference List of 100 Core Health Indicators is a standard set of core indicators prioritized by the global community to provide concise information on the health situation and trends, including responses at national and global levels.

This second (2018) edition builds on the previous work of the inter-agency working group that was commissioned by global health leaders to reduce reporting burden.

The 2018 list of indicators contains modifications and additions to indicators and metadata elements to reflect the recommended health and health-related indicators of the Sustainable Development Goals, including universal health coverage.

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