

### *Core indicators:*

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Indicators are prioritized as **Core** if they meet 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 program areas.
2. The indicator is scientifically robust, useful, accessible, understandable and SMART (specific, measurable, achievable, relevant and time-bound).
3. There is a strong track record of extensive measurement experience with the indicator (possibly supported by an international database).
4. The indicator is being used by countries in the monitoring of national plans and programmes .

Within the core set it may be important to further distinguish a small set of the most “powerful” indicators that can guide political commitment to health beyond the health sector. Some health MDG indicators, such as the child mortality rate and the maternal mortality ratio, are good examples.

Some of the indicators prioritized as core could be considered aspirational. For several core indicators many countries will not be able to report regular data. An example is causes of death in the population. Yet, few would argue that cause of death indicators should not be included as a core indicator, be it mortality due to AIDS, malaria, road traffic accidents or lung cancer. The indicators are fundamental for health resource allocation and planning, and monitoring of progress and impact.

### *Additional indicators:*

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Indicators are considered as **Additional** if they meet at least the first, second and fourth criteria, but do not fully meet the third. This implies that new indicators generally included in this additional category.

### *Project and grant monitoring*

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A third category of indicators exists that relate to specific project management and /or donor reporting. They have not been included as part of the global core or additional sets as they tend to be used by specific projects and donors for more specific programme management and accountability purposes.

The grant and project monitoring indicators differ in multiple ways: they are more often input or output indicators and tend to be based on crude data (counting events). The scope is often subnational, limited to a certain population, area or set of clinics engaged in the project. The indicators tend to be computed against a grant or project target rather than population as a whole.

While there is some overlap in the indicators collected for specific projects and donors with the Global Reference List of Core Health Indicators, reporting burden for such projects will not be mitigated at the country level for a significant number of indicators. The data collection investments are local and related to the project and generally not aiming to strengthen the country system. Sometimes national monitoring systems are weakened because of critical staff moving to grant and project monitoring and, if there are multiple projects in parallel, because it becomes more difficult to obtain a national picture from disparate projects.

It will be important over the longer term to work towards further rationalization of this category of indicators. A key principle should be that grant and project monitoring is carried out in a way that the national monitoring and evaluation system as a whole is strengthened.

### 3.3 Indicator metadata

For many of the indicators in the Global Reference List of Core Health Indicators, a comprehensive metadata set is available. These have been derived from existing sources such as the WHO Indicator and Metadata Registry and programme specific monitoring and evaluation guides. Key metadata include:

- **Indicator Definition** including the numerator and denominator. For some indicators further work is required to fine-tune definitions. For some indicators only a numerator is reported by the country, as models are used to estimate the denominator (but models also need reported data).
- **Disaggregations** that include equity stratifiers such as age and sex, geography, socioeconomic status, and place of residence, 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 neglected disease incidence rates of neglected tropical diseases by disease).
- **References** : The key reference group, governing body, resolutions, or programme publication that specifies monitoring of that particular indicator.
- **Data sources**: The main (preferred ) data source or data collection methodology is specified for each indicator including:
  - Civil registration and vital statistics systems
  - Population-based health surveys
  - Facility generated data that includes routine facility information systems and health facility assessments and surveys
  - Administrative data sources such as financial and human resource information systems
  - Other: indicators from other sources including estimation and modelling.

The extent to which an indicator is associated with a reporting burden differs by data source. Household surveys require a large investment and are conducted at a relatively low frequency. Adding an indicator or disaggregation is often considered a relatively small burden, although there are always concerns about the potential effect of overly long interviews on data quality. Facility data are collected on a continuous basis and reported on a frequent basis. The bulk of the burden of collecting and reporting often falls on health service providers. A simple new disaggregation may double the recording workload for health workers.

**Reporting periodicity** is a critical factor that affects the reporting burden and will be included in the next version of the metadata dictionary. Rationalization of indicators needs to go hand in hand with rationalization of reporting requirements. For some indicators annual reporting is desirable: those that can change rapidly and can be measured with great accuracy.

Going forward a priority action will be to publish the Global Reference List of Core Indicators and a full metadata registry both as an online database and in printed form. This will continually be updated and amended as global and country priorities and directions evolve.

## 4. Global Reference List of Core Health Indicators

Indicator name	Definition	Disaggregation/ Additional dimensions	References
<b>Health status</b>			
<b>Mortality by age and sex</b>			
Life expectancy at birth	Average number of years that a newborn could expect to live, if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area.	Sex, Socioeconomic status, Place of residence	47,48
Adult mortality rate between 15-60 years	Probability that a 15 year old person will die before reaching his/her 60th birthday. The probability of dying between the ages of 15 and 60 years (per 1 000 population) per year among a hypothetical cohort of 100 000 people that would experience the age-specific mortality rate of the reporting year.	Place of residence, Socio-economic status, Sex	16
Under-five mortality rate	Probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period.	Place of residence, Socio-economic status, Sex	1,47,49, 60
Infant mortality rate	Probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period.	Place of residence, Socio-economic status, Sex, Age (neonatal: 0-27 days ; postneonatal: 28 days-<1 year)	1,47
Neonatal mortality rate	Number of deaths during the first 28 completed days of life per 1000 live births in a given year or other period.	Place of residence, Socio-economic status, Sex Age in days/weeks, Birthweight	5,16, 36, 46,47
<b>Mortality by cause</b>			
Maternal mortality ratio	Annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100 000 live births, for a specified time period.	Place of residence, Socio-economic status, Age	1,47,50, 60
TB mortality rate	Estimated number of deaths attributable to tuberculosis (TB) in a given year, expressed as the rate per 100 000 population.	Place of residence, Socio-economic status, Age, Sex	1,2,13,16
HIV/AIDS mortality rate	Estimated number of adults and children that have died due to HIV/AIDS in a specific year, expressed per 100 000 population.	Age, Sex, Place of residence, Socio-economic status, TB/HIV co-infected	2
Malaria mortality rate	Number of deaths due to malaria per 100 000 population per year.	Age, Sex, Place of residence, Socio-economic status	1, 2, 17, 21,
Mortality between ages 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases	Unconditional probability of dying between the exact ages 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.	Place of residence, Socio-economic status, Sex	7,16, 46
Suicide mortality rate	Suicide rate per 100 000 population in a specified period (age-standardized).	Place of residence, Socio-economic status, Sex, Age	8
Mortality rate from road traffic injuries	Number of road traffic fatal injury deaths per 100 000 population (age-standardized)	Per motor vehicles, motor vehicle-km and passenger-km Place of residence Socio-economic status Sex Age	11, 19, 22
<b>Fertility</b>			
Adolescent fertility rate	Annual number of births to women aged 15-19 years per 1000 women in that age group.	Place of residence, Socio-economic status, Marital status ( when possible, also capture girls <15)	18, 24, 46
Total fertility rate	Average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality.	Place of residence, Socio-economic status	18

Indicator name	Definition	Disaggregation/ Additional dimensions	References
<b>Morbidity</b>			
New cases of vaccine preventable diseases	Number of confirmed new cases of vaccine preventable diseases that are included in the WHO recommended standards for surveillance of selected VPDs and VPD reported on the WHO-UNICEF reporting form in a specified time period.	Disease (diphtheria, pertussis, neonatal tetanus, total tetanus, measles, rubella, congenital rubella syndrome, mumps, Japanese encephalitis, Yellow Fever ), Age, District	2, 14, 16
New cases of IHR and other notifiable diseases	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 to spread rapidly internationally) per year	<i>IHR notifiable diseases:</i> Smallpox, Poliomyelitis due to wild type poliovirus, Human influenza caused by a new subtype, Severe acute respiratory syndrome (SARS) <i>Other notifiable diseases:</i> 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 and meningococcal disease) Location, Age, Sex	9, 16
HIV incidence	Number of new HIV infections per 1000 person years	General population, Key populations (MSM, sex workers, IDU) Sex and age groups (0-14, 15-24, 15-49) ; Child <3 years, < 1 year (to capture mother-to-child infections) Place of residence	1,2,3,18, 36,37, 46
HIV prevalence	Percentage of people living with HIV in the general and in specific key populations	General population: 15-49 years, 15-59 years, 15 years and over, 0-14 years Specific key populations: MSM, Sex workers, Injecting drug users, Transgender people, Prisoners Sex Place of residence, socioeconomic status	2,3, 36, 37, 46
Sexually transmitted infections incidence rate	Number of new cases of reported STIs (syndromic or etiological reporting) in a specified time period (year)	Age, Sex, Syndrome/pathogen, Key populations Syphilis, Gonorrhoea, Herpes, Chlamydia, Trichomonas vaginalis	28, 36, 46
TB incidence rate	Estimated number of new and relapse tuberculosis (TB) cases arising in a given year, expressed as the rate per 100 000 population. All forms of TB are included, including cases in people living with HIV.	Age, Sex, HIV status	1,2,13, 36, 38
TB notification rate	Number of tuberculosis (TB) cases detected in a given year. The term "case detection", as used here, means that TB is diagnosed in a patient and is reported within the national surveillance system, and then on to WHO.	Type of TB (bacteriologically confirmed/clinically diagnosed, pulmonary/ extrapulmonary) Age, Sex Place of residence, Prisons	2, 13, 36, 38
TB prevalence rate	Number of cases of tuberculosis (all forms) in a population at a given point in time (the middle of the calendar year), expressed as the rate per 100 000 population. It is sometimes referred to as "point prevalence". Estimates include cases of TB in people with HIV.	Bacteriologically confirmed TB, All forms of TB Age, Sex HIV status	1, 2, 13, 36, 38
Malaria parasite prevalence among children 6-59 months	Percentage of children aged 6–59 months in the population	Age, Sex, Place of residence, Season (year and month)	2,17,21, 36
Malaria incidence rate	Number of confirmed reported malaria cases per 1000 persons per year	Age, Place of residence, Season (year and month)	1,2,16,17, 21,36

Indicator name	Definition	Disaggregation/ Additional dimensions	References
Cancer incidence, by type of cancer	Number of new cancers of a specific site/type occurring per 100 000 population.	Type (leading cancers), e.g. lung, breast, cervix, prostate, colon, liver, stomach Age, Sex, Place of residence, Socio-economic status	2, 7
<b>Risk factors</b>			
<b>Nutrition</b>			
Exclusive breastfeeding rate 0–5 months of age	Proportion of infants 0–5 months of age who are fed exclusively with breast milk.	Ever breastfed, Continued breastfeeding at 1 year, Sex	2,4, 5, 6,16,20, 29, 35, 36, 37,60
Early initiation breastfeeding	Percentage of infants breastfed within 1 hour of birth in a specified time period	Initiation on first day	
Incidence of low birth-weight among new-borns	Percentage of live births that weigh less than 2500 g out of the total of live births during the same time period	Place of residence, Socioeconomic status, Birthweight category, Preterm status	2,6,19,20
Children under 5 who are stunted	Percentage of stunting (height-for-age less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-4 years	Sex, Age, Place of residence, Socioeconomic status. Also: Below -3 SD	2,4,6,16,20,39, 40,60
Children under 5 who are wasted	Percentage of wasting (weight-for-height less than -2 standard deviations of the WHO Child Growth Standards median) among children aged 0-4 years	Sex, Age, Place of residence, Socioeconomic status Also: Below - 3SD	2,6,16,20, 39,40
Anaemia in children	Percentage of children aged 6-59 months with a haemoglobin measurement of <8g/dL	Age, Sex, Place of residence, Socioeconomic status Also: <11 g/dL	6, 17,21, 36
Anaemia prevalence among women of reproductive age	Percentage of women ages 15-49 screened for haemoglobin levels who have a level less than 12g/dL (pregnant women less than 11g/dL)	Age parity, Reproductive status (pregnant, lactating), Trimester of pregnancy, Severity of anaemia Socioeconomic status	2,6, 41, 46
<b>Infections</b>			
Condom use at last sex among people with multiple sexual partnerships in past 12 months	Percentage of women and men aged 15–49 who have had more than one sexual partner in the past 12 months who report the use of a condom during their last sexual intercourse with a higher risk partner.	Sex, Age(15-24, 15-49)	1,3,16, 36, 37, 46
Condom use among key populations (sex workers, men who have sex with men, IDU)	Percentage of sex workers/MSM/IDU reporting the use of a condom the last time they had sex with a client/male partner/any partner respectively	Sex workers: by sex (F/M/transgender); age (<25/25+) MSM: age (<25/25+) IDU: sex; age (<25/25+)	3,36, 37
<b>Environmental risk factors</b>			
Population using a safely managed drinking water service	Percentage of population using an improved drinking water source on premises accessible to all members of the household, which delivers sufficient water to meet domestic needs (non-functional ≤ 2 days in the last 2 weeks), meets WHO guideline values for E.coli, fluoride and arsenic, and is subject to a verified risk management plan.	Socioeconomic status, Place of residence (urban/rural)	25a, 25b, 25c, 25d, 46
Population using a safely managed sanitation service	Percentage of people who (1) use an adequate sanitation facility and (2) whose excreta is safely transported to a designated disposal/treatment site, or treated in situ before being re-used or returned to the environment.	Socioeconomic status, Place of residence (urban/rural)	25a, 25b, 25c, 46
Population using modern fuels for cooking/heating/lighting (indoor air)	Percentage of households/population using modern fuels for cooking/ heating/ lighting.	Sex, Place of residence, Socioeconomic status, Fuel type, End use (i.e. cooking, heating, lighting)	16a, 16b
<b>Non Communicable Diseases</b>			
Total alcohol per capita (aged 15+ years old) consumption	Total alcohol per capita (APC) is defined as the total (sum of recorded APC three-year average and unrecorded APC) amount of alcohol consumed per adult (15+ years) over a calendar year, in litres of pure alcohol.	Age, Sex, other relevant socio-demographic stratifiers where available	2,7,16

Indicator name	Definition	Disaggregation/ Additional dimensions	References
Current tobacco use among persons aged 18+ years	"Smoked tobacco products" includes the consumption of cigarettes, bidis, cigars, cheroots, pipes, shisha (water pipes), fine-cut smoking articles (roll-your-own), krekets, and any other form of smoked tobacco. "Smokeless tobacco" includes moist snuff, plug, creamy snuff, dissolvables, dry snuff, 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 sniffed, held in the mouth, or chewed.	Age, Sex, other relevant socio-demographic stratifiers where available	61
Children under 5 who are overweight	Percentage of overweight (weight-for-height above +2 standard deviations of the WHO Child Growth Standards median) among children aged 0-4 years.	Sex, Age, Place of residence, Socioeconomic status	2,6,7,16,19, 39,41
Obesity and overweight among adults	Percentage of adults (18+ years) who are overweight (defined as having a BMI $\geq 25$ kg/m <sup>2</sup> ) and obese (defined as having a BMI $\geq 30$ kg/m <sup>2</sup> )	Age, Sex, Other relevant socio-demographic stratifiers where available	
Raised blood pressure among adults	Systolic blood pressure $\geq 140$ and/or diastolic blood pressure $\geq 90$ among persons aged 18+ years.	Age, Sex, Other relevant socio-demographic stratifiers where available	51
Raised blood glucose/diabetes among adults	Fasting plasma glucose value $\geq 7.0$ mmol/L (126 mg/dL) or on medication for raised blood glucose among adults aged 18+ years.	Age, Sex, other relevant socio-demographic stratifiers where available	52
Population intake of salt	Mean population intake of salt in grams	Age, Sex, other relevant socio-demographic stratifiers where available	53,54,55,56
Insufficient physical activity in adults	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	Age, Sex, other relevant socio-demographic stratifiers where available	57,58
<b>Injuries</b>			
Intimate partner violence prevalence	Percentage of ever-partnered women 15-49 years who have experienced physical and/or sexual violence by an intimate partner in the last 12 months	Age (15-19, 20-24 and 25-49) HIV status	3, 34, 36, 46
<b>Service coverage</b>			
<b>Reproductive, maternal, newborn, child and adolescent</b>			
Demand for family planning satisfied with modern methods	Percentage of women of reproductive age (15-49 years), who are sexually active, who have their need for family planning satisfied with modern methods	Age, Socio economic status, Place of residence, Marital status	2,4,24, 46,60
Modern contraceptive prevalence rate	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	Age, Socio economic status, Place of residence, Method (short, long, permanent), Sexually active (irrespective of marital status or in union)	1,2,4,20,24, 35, 46
Antenatal care coverage	Percentage of women aged 15-49 with a live birth in a given time period that received antenatal care four or more times.	Age, Socio economic status, Place of residence, Type of provider. Also: at least one visit	1,2, 4, 20, 36,60
Skilled birth attendance	Percentage of live births attended by skilled health personnel during a specified time period	Age parity, Socio economic status, Place of residence, Type of provider Also: Institutional delivery coverage (women giving birth in a health institution)	1,4,5,20, 36, 46,60
Postpartum care coverage	Percentage of mothers and babies who received postpartum care within two days of childbirth (regardless of place of delivery)	Age Parity, Marital status, Socio economic status, Place of residence, Facility ownership	4,5, 20, 35,60
Care seeking for pneumonia	Proportion of children aged 0-59 months who had "suspected pneumonia" (ARI) in the previous 2 weeks and were taken to an appropriate health-care provider. The definition of 'appropriate' care provider varies between countries. Percentage of children under 5 with suspected pneumonia (cough and difficult breathing NOT due to a problem in the chest and a blocked nose) in the two weeks preceding the survey taken to an appropriate health facility or provider.	Sex, Socioeconomic status, Place of Residence, Provider Also: with "receiving appropriate antibiotics"	30,16,60

Indicator name	Definition	Disaggregation/ Additional dimensions	References
Children with diarrhoea receiving oral rehydration solution (ORS)	Percentage of children under 5 with diarrhoea in the last two weeks receiving ORS (fluids made from ORS packets or pre-packaged ORS fluids)	Age, Sex, Place of residence, Socioeconomic status Also: with continued feeding; oral rehydration therapy (ORT)	30, 35,16
Vitamin A supplementation coverage	Percentage of children 6–59 months who received 2 age-appropriate doses of vitamin A in the past 12 months	Age, Sex, Socioeconomic status, Place of residence	16, 20, 30, 35
<b>Immunization</b>			
Immunization coverage rate, by vaccine for each vaccine in the national schedule	Percentage of target population who have received the appropriate doses of the recommended vaccines in the national schedule by recommended age: (BCG, hepB, PCV, rotavirus; DTP-HepB-Hib, Pcv; measles; HPV, TT, Influenza)	Age, Sex, Socio economic status Place of residence DTP1 - DTP3 dropout rate; MCV1-MCV2 dropout	60
<b>HIV</b>			
People living with HIV who now their positive HIV status	Percentage of all people living with HIV who know their positive HIV status	Age, Sex, Pregnancy, Key population	36,37, 46
Prevention of Mother-to-Child Transmission	Percentage of HIV-infected pregnant women provided with ARV drugs to reduce the risk of mother-to-child transmission during pregnancy and delivery in the last 12 months	By regimen	3, 4, 36, 37, 46,60
Antiretroviral Therapy (ART) coverage	The percentage of adults and children with advanced HIV infection currently receiving antiretroviral combination therapy in accordance with the nationally approved treatment protocols (or WHO/UNAIDS standards) among the estimated number of adults and children with advanced HIV infection	Sex, Age, Key populations, pregnant women, Persons newly initiating ART during the last year, Provider type (public/private)	1, 3, 36, 37, 46
HIV Viral load suppression	Percentage of people on ART who are virologically suppressed (VL level ≤ 100 copies/mL)	Sex, Age	3,36
<b>HIV/TB</b>			
TB preventive therapy for HIV-positive people newly enrolled in HIV care	Percentage of eligible adults and children newly enrolled in HIV care (pre-ART and ART) starting treatment for latent TB infection in a specified time period	Adults/children	3, 31,36, 37
TB patients, new and relapse, tested for HIV	Percentage of new and relapse TB patients registered who had an HIV test result recorded in the TB register among the Total number of new and relapse TB patients registered in a specified time period	Age, Sex	2, 13, 3, 36, 37
Antiretroviral therapy (ART) during TB treatment	Percentage of HIV-positive TB patients who received (or are receiving) ART during or at the end of TB treatment, among all HIV positive TB patients registered during the reporting period	Age, Sex	3, 31, 36, 37
<b>Tuberculosis</b>			
TB cases with result for drug susceptibility testing	Percentage of TB cases (new and previously treated) with results for diagnostic drug susceptibility testing during the specified period of assessment	Treatment history	31, 36
TB case detection rate	Proportion of estimated new and relapse tuberculosis (TB) cases detected in a given year under the internationally recommended tuberculosis control strategy		1, 2, 13, 36
<b>Malaria</b>			
Intermittent preventive therapy for malaria during pregnancy (IPTp)	Percentage of women who received 3 or more doses of intermittent preventive treatment during ANC visits during their last pregnancy	Age, Place of residence, Socio-economic status	2, 17, 20, 21, 36
Use of insecticide treated nets (ITN)	Percentage of children under five years of age in malaria endemic areas who slept under an insecticide-treated nets (ITN) the previous night	Place of residence, Socioeconomic status Also: Age (children under 5); pregnant women	1,2,17,20, 21, 36
Access/ownership of ITN in the household	Percentage of population at risk with access/ownership of ITN in the household.	Each ITN is assumed to be used by 2 people	2,17,20,21, 36
Indoor residual spraying (IRS) coverage	Percentage of population at risk protected by IRS during a specified time period		2,17,20,21, 35, 36
<b>NTD</b>			
Coverage of preventive chemotherapy for selected neglected tropical diseases	Target population living in endemic areas in a country and which require preventive chemotherapy for each of the selected diseases (Schistosomiasis, soil transmitted helminths, lymphatic filariasis, onchocerciasis)	Age (pre-school age children 1-4); school aged (5-14 years) and adults >15 years	2, 12,16, 35
<b>Screening and preventive care</b>			
Cervical cancer screening	Proportion of women aged 30-49 who report they were screened for cervical cancer using any of the following methods: Visual Inspection with Acetic Acid/vinegar (VIA), pap smear and Human Papillomavirus (HPV) test	Age, Sex, other relevant socio-demographic stratifiers where available.	59

Indicator name	Definition	Disaggregation/ Additional dimensions	References
<b>Mental Health</b>			
Coverage of services for severe mental health disorders	Percentage of persons with a severe mental disorder (psychosis; bipolar affective disorder; moderate-severe depression) who are using services	Age, Sex	2
<b>Health systems</b>			
<b>Quality and safety of care</b>			
Perioperative mortality rate	All cause death rate prior to discharge among patients having one or more procedures in an operating theatre during the relevant admission	By region/health facility, Age Emergency and elective surgery Also: surgical volume per 100 000 population	19, 23
Institutional maternal mortality ratio	Number of maternal deaths among 100 000 deliveries in Health facilities/institutions.	Age, Parity, Location, Cause of death	1,2,4,16,18,20, 37
Maternal death reviews	Percentage of maternal deaths occurring in the facility that were audited	Community deaths, Major administrative regions, Facilities	4,32
ART retention rate	Percentage of adults and children with HIV alive and on antiretroviral therapy (ART) 12, 24, 36 months (etc.) after initiating treatment among patients initiating antiretroviral therapy during a specified time period.	Age, Sex, Pregnancy, Breastfeeding	1, 3, 36, 37
TB treatment success rate	Percentage of TB cases successfully treated (cured plus treatment completed) among all new TB cases notified to the national health authorities during a specified period.	Age, Sex Treatment history: new and relapse/previously treated (excl. relapse), HIV, Bacteriology Also: Drug-susceptible and MDR-TB treatment success rate	1, 2, 13, 31, 36
Second line treatment coverage among MDR-TB cases	Percentage of notified TB patients who have been detected with MDR-TB and enrolled in second-line anti-TB treatment during the specified period of assessment.	New, Previously treated	31, 35, 36
Service-specific availability and readiness	Number of health facilities offering specific services per 10 000 population (e.g. FP, delivery. BEmOC, CEmOC, etc.) and meet minimum service standards based on a set of tracer criteria for specific services etc.)	Facility type, Managing authority Also: average number of items for each service per facility	15, 36, 37, 46
<b>Access</b>			
Service utilization	Number of Outpatient department (OPD) visits per person per year	Age, Sex, Place of residence Also: Hospital (inpatient) admissions per 100 population	15, 36
Health service access	Percentage of population living within 5km of a health facility ( total number of health facilities per 10 000 population)	Facility ownership; type, Location (district, province, national), Density of specific services, Access to emergency surgery	15,16, 36
Hospital bed density	Total number of hospital beds per 10 000 population	Distribution (by province/district), Ownership (public/private), Type of bed	15,16
Availability of essential medicines and commodities	Percentage of health facilities with essential medicines and lifesaving commodities in stock on the day of visit (with median availability).	Facility type, Facility managing authority (public/private), Specific type of medicine/commodity	1,7,15, 36, 37, 46
Median consumer price ratio of selected medicines	Median consumer price ratio (ratio of median local unit price to Management Sciences for Health international reference price) of selected originator medicines	Provider type (public/private) Product type : Medicines : Originator Product type : Medicines : Lowest price generic	1, 15, 37
<b>Health workforce</b>			
Health worker density and distribution	Number of health workers per 1000 population	Cadre : core professionals (physicians, midwives, nurses) ; specific cadres such as specialists (surgeons, psychiatrists, etc) ; other cadres (dentists, pharmacists) Distribution: Place of employment (urban/rural); Subnational (district)	15,16, 36, 37, 43, 46



Indicator name	Definition	Disaggregation/ Additional dimensions	References
Output training institutions	Number of graduates from health workforce educational institutions (including schools of dentistry, medicine, midwifery, nursing, pharmacy) during the last academic year per 1000 population	Level and field of education Also: Sex, age at graduation, home postcode on entry to education institution	15, 35, 36, 43
<b>Health information</b>			
Birth registration coverage	Percentage of births that are registered (within one month of age) as part of a civil registration system	Sex, Place of residence, Socioeconomic status	15
Death registration coverage	Percentage of deaths that are registered (with age and sex)	Place of residence Also: registered with cause (ICD)	15, 36
Completeness of reporting facilities / districts (general, by disease type)	Percentage of facilities that submit reports within the required deadline	Facility type, Managing authority, Geography	15, 35, 36
<b>Health financing</b>			
Current expenditure on health by general government and compulsory schemes % CHE	Current expenditure on health by general government and compulsory schemes as a share of total current expenditure on health	Financing source institutional unit, Disease, Input, Sub-National Level, Socio-economic status	24,36,37, 45, 46
Total current expenditure on health % GDP	Total current expenditure on health as a percentage of gross domestic product	Financing source institutional unit, Main type of care, Main type of provider, Disease, Sub-National Level, Socio-economic status	24,45, 46
Out-of-pocket payment for health as a share of total current expenditure on health	Share of total current expenditure on health paid by households out-of-pocket (expressed as a % of total current expenditure on health, this is the households' out-of-pocket expenditure)	Financing source institutional unit, Disease, Input, Sub-National Level, Socio-economic status	24, 36
Externally sourced funding as share of total current expenditures	Share of total current expenditure on health funded by external (rest of the world) institutional units providing revenues to financing schemes	By Row financing source institutional unit	
Total capital expenditure on health as share of GDP	Total capital expenditure on health as a percentage of gross domestic product	Financing source institutional unit, Financing agent, Provider, Disease	
Incidence of catastrophic health expenditure	Direct out-of-pocket expenditure exceeding 40% of household income net of subsistence needs	By sub national variables available in survey data	15
Incidence of impoverishment due to OOP	Number of households falling below the poverty line due to direct out-of-pocket expenditure	By sub national variables available in survey data	15
<b>Health security</b>			
IHR core capacity index	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) Zoonosis; (11) Food safety; (12) Chemical; (13) Radionuclear.		2

## Core indicators by results chain

Inputs and processes	Output	Outcome	Impact
<p><b>Health financing</b></p> <p>Current expenditure on health by general government and compulsory schemes % CHE</p> <p>Total current expenditure on health % GDP</p> <p>Externally sourced funding as a share of total current expenditures</p> <p>Total capital expenditure on health as share of GDP</p> <p><b>Health workforce</b></p> <p>Health worker density and distribution</p> <p>Output training institutions</p> <p><b>Health infrastructure</b></p> <p>Health service access</p> <p>Hospital bed density</p> <p><b>Health information</b></p> <p>Birth registration coverage</p> <p>Death registration coverage</p> <p>Completeness of reporting facilities / districts</p>	<p><b>Service access and availability</b></p> <p>Service utilization</p> <p>Service-specific availability and readiness</p> <p>Availability of essential medicines and commodities</p> <p>Median consumer price ratio of selected medicines</p> <p><b>Service quality and safety</b></p> <p>Perioperative mortality rate</p> <p>Institutional maternal mortality ratio</p> <p>Maternal death reviews</p> <p>ART retention rate</p> <p>TB treatment success rate</p> <p>Second line treatment coverage among MDR-TB cases</p> <p><b>Health security</b></p> <p>IHR core capacity index</p>	<p><b>Coverage of Interventions</b></p> <p>Demand for family planning satisfied with modern methods</p> <p>Modern contraceptive prevalence rate</p> <p>Antenatal care coverage</p> <p>Skilled birth attendance</p> <p>Postpartum care coverage</p> <p>Care seeking for pneumonia</p> <p>Children with diarrhoea receiving oral rehydration solution</p> <p>Vitamin A supplementation coverage</p> <p>Immunization coverage rate, by vaccine for each vaccine in the national schedule by recommended age</p> <p>People living with HIV who are aware of positive HIV status</p> <p>Prevention of Mother-to-Child Transmission</p> <p>Antiretroviral Therapy (ART) coverage</p> <p>HIV Viral load suppression</p> <p>TB preventive therapy for HIV-positive people newly enrolled in HIV care</p> <p>TB patients, new and relapse, tested for HIV</p> <p>Antiretroviral therapy (ART) during TB treatment</p> <p>TB cases with result for drug susceptibility testing</p> <p>TB case detection rate</p> <p>Intermittent preventive therapy for malaria during pregnancy (IPTp)</p> <p>Use of insecticide treated nets (ITN)</p> <p>Access/ownership of ITN in the household</p> <p>Indoor residual spraying (IRS) coverage</p> <p>Coverage of preventive chemotherapy for selected neglected tropical diseases</p> <p>Cervical cancer screening</p> <p>Coverage of services for severe mental health disorders</p> <p><b>Risk factors and behaviours</b></p> <p>Exclusive breastfeeding rate 0-5 months of age</p> <p>Early initiation breastfeeding</p> <p>Incidence of low birthweight among newborns</p> <p>Children under 5 who are stunted</p> <p>Children under 5 who are wasted</p> <p>Anaemia in children</p> <p>Anaemia prevalence among women of reproductive age</p> <p>Condom use at last sex among people with multiple sexual partnerships in past 12 months</p> <p>Condom use among key populations (sex workers, men who have sex with men, IDU)</p> <p>Population using a safely managed drinking water service</p> <p>Population using a safely managed sanitation service</p> <p>Population using modern fuels for cooking/heating/lighting (indoor air)</p> <p>Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption</p> <p>Current tobacco use among persons aged 18 + years</p> <p>Children under 5 who are overweight</p> <p>Obesity and overweight among adults</p> <p>Raised blood pressure among adults</p> <p>Raised blood glucose/diabetes among adults</p> <p>Population intake of salt</p> <p>Insufficient physical activity in adults</p> <p>Intimate partner violence prevalence</p>	<p><b>Health status</b></p> <p>Life expectancy at birth</p> <p>Adult mortality rate between 15-60 years</p> <p>Under 5 mortality rate</p> <p>Infant mortality rate</p> <p>Neonatal mortality rate</p> <p>Maternal mortality ratio</p> <p>TB mortality rate</p> <p>HIV/AIDS mortality rate</p> <p>Malaria mortality rate</p> <p>Mortality between ages 30 and 70 years from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases</p> <p>Mortality rate from suicides</p> <p>Mortality rate from road traffic injuries</p> <p>Adolescent fertility rate</p> <p>Total fertility rate</p> <p>New cases of vaccine preventable diseases</p> <p>New cases of IHR and other notifiable diseases</p> <p>HIV incidence</p> <p>HIV prevalence</p> <p>Sexually transmitted infections incidence rate</p> <p>TB incidence rate</p> <p>TB notification rate</p> <p>TB prevalence rate</p> <p>Malaria parasite prevalence among children 6-59 months</p> <p>Malaria incidence rate</p> <p>Cancer incidence, by type of cancer</p> <p><b>Financial risk protection</b></p> <p>Out-of-pocket payment for health as a share of total current expenditure on health</p> <p>Incidence of catastrophic health expenditure</p> <p>Incidence of 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「保健分野のポスト国連ミレニアム開発目標に向けた指標開発に関する研究」  
分担研究報告書

「ポストMDGにおける医療経済・サービス・質関連指標について」

分担研究者 川島（児玉）知子 国立保健医療科学院 国際協力研究部客員研究員  
医療法人社団みどりの会 あんずクリニック産婦人科

研究要旨

【背景】保健関連のポスト国連ミレニアム開発目標（ポスト MDGs）については国際的議論が始まっており、現行 MDGs の保健課題に加えて、非感染性疾患（Non Communicable Diseases: NCDs）である生活習慣病やがんをはじめとする慢性疾患への対応が急務とされている。さらに、国連本部から発表された持続可能な開発目標（SDGs: Sustainable Development Goals）においては、健康関連目標も数多く盛り込まれた。本研究では、関連指標の整理とともに、近年注目が高まっている UHC (Universal Health Coverage) の関連指標について検討した。

【目的】本研究では、ポスト MDGs の国際的な保健課題克服に向けた取り組みや設定目標の方向性について、国内外の有益な保健指標についてレビューする。2年目となる本年は、年度内に発表された SDGs (Sustainable Development Goal) との関連や OECD, WHO で検討されつつある UHC (Universal Health Coverage) に関連した指標および国内で利活用可能な政府統計調査データの項目内容を検討する。

【方法】ポストMDG指標となりうる関連指標について、初年度は国際機関報告書、関連分野における学術論文、会議報告書等についてレビューを行い、指標の利用可能性 (availability) を考慮しつつ、国内調査で情報源として有用な調査やデータについて併せて検討した。2年目となる本年は、国連総会で発表された SDG における保健指標の位置づけと対象を明らかにするとともに、現在具体的な指標として検討が進んでいる UHC (Universal Health Coverage) 領域における医療経済・サービス・質指標について、OECD や WHO 等で実際に注目されている指標を中心に、公開データより検討した。

【結果】SDGs においては、保健分野の重要領域が広くカバーされた目標となっている。近年の課題となっている非感染性疾患 (Non-Communicable Diseases) についても明記されており、補助目標として喫煙の防止が盛り込まれている。さらに保健指標概念としては目標策定が困難であるが重要な課題であるワクチン開発や特許への配慮、人材育成と開発に関しても言及されている。NCD については既に WHO でのモニタリングフレームワークが整備されているため、今後は各国での情報収集が進むと考えられる。UHC に関連する指標では、OECD・WHO 共同での指標開発とデータ収集が期待される。実際に、アジア地域における UHC 指標として、①医療へのアクセス (Access to health care)、②必須医療サービスに対するアクセスの公平性 (Inequities in access to essential services)、③財務 (Finance)、④医療の財務 (Financing of healthcare)、⑤薬剤費 (Pharmaceutical expenditure) について指標開発がなされている。アジアにお

いてはオーストラリア、ニュージーランド、日本、韓国、シンガポール等を除く中・低所得国における指標開発の調査が実施されており、今後も引き続き対象国が拡大されると考えられる。さらに、今後は中・低所得国でもデータ収集が促進されると考えられる指標として、医療サービスの質を評価する指標（Quality of Care:既に OECD 加盟国では 1995 年から収集が開始されているデータ）として、子どもの予防接種実施率、病院医療の評価として心筋梗塞・脳卒中の入院 30 日後の転帰、乳がん・子宮頸がん・大腸がんの死亡率が参照されていた。

【考察】SDGs ではこれまで感染症、母子保健が中心であった MDG から非感染性疾患(NCD) や UHC についても目標として盛り込まれた。NCD では既に WHO によってモニタリング指標が提示されているが、UHC については今後の指標開発とパフォーマンス評価が課題となると考えられる。また、これまで OECD を中心として検討が進んできた医療サービス・質評価の指標について、今後は UHC の一部として中・低所得国でも利用可能な指標の開発が期待される。国内においては、既に国民生活基礎調査、受療行動調査において医療へのアクセス（経済的、地理的、地域医療連携）や公平性についてのデータが収集されていることから、今後はこれらの項目を有効利用することが可能である。特に NCD や UHC 領域においては、国内での知見が海外でのパフォーマンス向上に資すると考えられることから、各研究機関や管轄省庁を超えた世界貢献への戦略が求められる。

【結論】本年度はポスト MDG の指標となる保健課題指標について、本年度発表された SDG および国際的動向を踏まえて検討した。新たに追加された非感染性疾患、UHC について、さらに今後検討が必要な関連指標について考察した。

## A. 研究目的

本研究では、Post MDGs の国際的な保健課題克服に向けた取り組みや設定目標の方向性について、国内外の有益な保健指標についてレビューする。

昨年度は保健分野に関する調査や指標について、生活習慣病、精神保健、高齢化を中心に、国際機関報告書、政府機関文書、学術論文等から情報収集を行い、特に指標の利用可能性（availability）を考慮しつつ有用な大規模調査やデータについて検討した。

2 年目となる本年は、年度内に発表された SDGs(Sustainable Development Goal) との関連や OECD, WHO で検討されつつある UHC(Universal Health Coverage)に 関連した指標および国内で利活用可能なデータソースとして国民生活基礎調査につ

いて項目内容を検討した。

## B. 研究方法

ポストMDG指標となりうる関連指標について、初年度は国際機関報告書、関連分野における学術論文、会議報告書等についてレビューを行い、指標の利用可能性（availability）を考慮しつつ、国内調査で情報源として有用な調査やデータについて併せて検討した。2 年目となる本年は、国連から発表のあった SDGs における保健指標の位置づけと対象を明らかにするとともに、現在具体的な指標として検討が進んでいる UHC(Universal Health Coverage)領域における医療経済・サービス・質指標について、OECD や WHO 等で注目されている指標について、公開データより検討した。指標のデータ利



用可能性については、海外は OECD, WHO 使用データ、国内では政府統計調査（国民生活基礎調査、受療行動調査等）項目を参考とした。

（倫理面への配慮）

該当なし

## C. 研究結果

### ① SDGs (Sustainable Development Goals) における保健関連指標について

2015年9月に国連総会で発表されたSDGでは、MDG (Millennium Development Goals) との整合性を検討するためワーキンググループによる議論が繰り返されてきたが、健康関連指標については表1の如く、保健分野の多岐に渡る領域がカバーされた。

日本からは、ポスト2015年開発目標として、あらゆる人々を成長に取り込み、開発の恩恵が広く行き渡るような包摂的な成長が求められているとの観点から、「人間の安全保障」の考え方が重要であるとした[2]。2013年5月には「国際保健外交戦略」を策定して、Universal Health Coverage (UHC: すべての人が予防・治療・リハビリなどの基礎的な保健サービスを必要な時に負担可能な費用で受けられる状態)の達成に向けて取組を強化する方針を打ち出したが、同戦略ではサブサハラ・アフリカにおけるMDGsの母子保健に関する目標達成への継続や、MDGsでは対象となっていない新たな課題（糖尿病、がん・生活習慣病等の非感染性疾患、高齢化）の対が言及された[3]。これらの日本からの目標課題はすべてSDGに含まれているが、対象は保健分野のあらゆる

領域に広がっており、高齢化、精神保健（アルコール・薬物中毒を除く）以外の全ての項目が網羅されている（図1. Key area（著者による加筆）参照）。特に非感染性疾患（Non-Communicable Diseases）は第4番目、UHCについては第8番目の目標事項となっており、これらは本研究班にて初年度に検討・報告してきた内容とも合致している。発表された指標からは具体的な数値目標は得られていないが、今後具体的な目標設定が進むと考えられる。

### ② UHCと医療経済および医療の質指標について

ポストMDG指標については、国際会議等における国際情勢を踏まえたうえで、既存の保健指標や健康指標改善度に沿った実現可能な指標の開発が必要である。Health for Allの理念のもとに設立されたWHOにおいては、これまでもUniversal Health Care/Coverage (UHC) について様々な議論が重ねられており、UHCという抽象的な概念に対する定義の整理が行われた[4]。

Universal Health Care（普遍的な医療）とは、幾つかの基本原則をもとにして下記の5つの領域に集約されている。

- ① アクセス (accessibility to health care by its intended recipients),
- ② 広範な対象集団 (broad population coverage),
- ③ 加入時の包括的医療サービス (a package of point-of-entry healthcare services),
- ④ 権利と資格に基づいた医療 (healthcare access based on rights and entitlements),
- ⑤ 社会経済的な困窮への保護

(protection from the social and economic consequences of illness)  
 Universal Health Care という言葉が使用されるのは、多くは高所得国であり、Universal Health “Coverage” (UHC) は中・低所得国において頻用される。従って、実際には最貧国において人口集団のカバー率は保障されておらず、しばしば見過ごされている重要な課題である。しかし、中・低所得国や最貧国においても、この医療サービスへのアクセスが実現しなければ、真の意味での Health for All の達成が困難であることは言うまでもない。

多くの施策者や研究者によって、UHC は目的ではなく手段であることは重ねて強調されている。実際のパフォーマンス評価では、下記についてクリアにすることが重要である。

- ① 効率性 : Efficiency
- ② 資金投資の公平性 : Equity of financing
- ③ 医療アクセスの公平性 : Equity of access to care
- ④ 高額医療費の限度 : Extent of catastrophic payments
- ⑤ 応答性 : Responsiveness (注 : 近年は Patient Experience と表現される)

OECD では 1995 年より Health Care Quality Indicator Project が開始し、各国の医療の質指標が検討されてきた。中・低所得国においても今後は同様のもしくは実態に即した医療サービスの内容を適切に評価する指標が開発される必要がある [5.6]。

●現在利用されている指標 : UHC (表 1 参照 出典 [5])

**A) Access to health care:**

Health care insurance coverage (%),

Problems in accessing care due to financial reason,

problems in accessing care due to difficulties in getting permission,

problems in accessing care due to distance,

**B) Inequities in access to essential services**

Antenatal care from a skilled provider and no antenatal care among women

Postnatal care among women

DPT immunization coverage among children aged 12-23months

Children with diarrhea, who received treatment

**C) Finance**

Health expenditure and financing

Health expenditure per capita and in relation to GDP

Total expenditure on health per capita, public and private, USD PPP

Average annual growth rate in real health spending and GDP per capita,

Change in total expenditure on health as a share of GDP

**D) Financing of healthcare**

Change in public share of total expenditure on health 2000-2012

Change in out-of-pocket spending as a share of total expenditure on health 2000-2012

Out-of-pocket and private prepaid plans spending as a share of private expenditure,

External resources as a share of total expenditure on health, 2005 and 2012

**E) Pharmaceutical expenditure**

Pharmaceutical expenditure per capita, USD PPP, and average annual growth rate

in real pharmaceutical spending per capita, 2000-2010

Change in pharmaceutical expenditure as a share of total expenditure on health 2000-2010

Public share of pharmaceutical expenditure

○今後は評価対象国が増えると考えられる指標(OECD参加国では1995年頃から収集が開始されている項目)

#### Quality of Care

Childhood vaccination programmes

Vaccination rates for diphtheria tetanus and pertussis (DTP3), children aged around 1,

Vaccination rates for measles (MCV), children aged around 1,

Vaccination rates for hepatitis B(Hep3), children aged around 1,

In-hospital mortality following acute myocardial infarction and stroke

In-hospital case-fatality rates within 30 days after admission for AMI,

In-hospital case-fatality rates within 30 days after admission for ischemic stroke, In-hospital case-fatality rates within 30 days after admission for hemorrhagic stroke,

Mortality from breast, cervical and colorectal cancer

Breast cancer mortality

Cervical cancer mortality

Colorectal cancer mortality

#### D. 考察

本年度はポスト MDG の指標となる保健課題指標について、本年度発表された SDG

および国際的動向を踏まえて検討した。SDG ではこれまで感染症、母子保健が中心であった MDG から非感染性疾患 (NCD) や UHC についても目標として盛り込まれている。NCD では既に WHO によってモニタリング指標が提示されているが、UHC については今後の指標開発とパフォーマンス評価が課題となると考えられる。また、これまで OECD を中心として検討が進んできた医療サービス・質評価の指標について、今後は UHC の一部として中・低所得国でも利用可能な指標の開発が期待される。国内においては、既に国民生活基礎調査、受療行動調査において医療へのアクセス(経済的、地理的、地域医療連携)や公平性についてのデータが収集されていることから、今後はこれらの項目を有効利用することが可能である。特に NCD や UHC 領域においては、国内での知見が海外でのパフォーマンス向上に資すると考えられることから、各研究機関や管轄省庁を超えた世界貢献への戦略が求められる[7.8]。

#### E. 結論

本年度はポスト MDG の指標となる保健課題指標について、本年度発表された SDG および国際的動向を踏まえて検討した。新たに追加された非感染性疾患、UHC について、さらに今後検討が必要な関連指標について考察した。

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