UNICEF BRIEFING NOTE SERIES ON
SDG global indicators related to children

Introduction

This is the first in a series of briefing notes for UNICEF regional and country offices on SDG indicators. It summarises the development and implementation of the SDG global indicator framework and UNICEF's role in supporting member states to collect, analyse and report on child-related SDG indicators at national and global levels. The second briefing note gives an overview of potential national data sources and disaggregation. Briefing notes 2-15 provide detailed information on child-related global SDG indicators for which UNICEF has been identified as custodian, co-custodian, or supporting agency for the purposes of global reporting (Table 1). Additional briefing notes may be developed in future covering other global indicators related to children and cross cutting issues related to SDG monitoring.

Table 1: UNICEF briefing notes on SDG global indicators

UNICEF BRIEFING NOTES ON SDG GLOBAL INDICATORS
Briefing note # 1 **National and global monitoring of child-related SDG indicators**
Briefing note #2 **Child poverty**
Briefing note #3 **Nutritional status**
Briefing note #4 **Maternal mortality and skilled attendant at birth**
Briefing note #5 **Child mortality**
Briefing note #6 **Universal health coverage**
Briefing note #7 **Learning**
Briefing note #8 **Early childhood development**
Briefing note #9 **Violence against girls and women**
Briefing note #10 **Harmful practices**
Briefing note #11 **Drinking water**
Briefing note #12 **Sanitation and hygiene**
Briefing note #13 **Child labour**
Briefing note #14 **Abuse, exploitation and violence**
Briefing note #15 **Birth registration**

Number of child-focused indicators within each SDG goal

SDG1: 5 indicators
SDG2: 2 indicators
SDG3: 10 indicators
SDG4: 4 indicators
SDG5: 4 indicators
SDG6: 2 indicators
SDG7: 1 indicator
SDG8: 1 indicator
SDG13: 1 indicator
SDG16: 5 indicators

SDG17
SDG15
SDG14
SDG12
SDG11
SDG10
SDG9
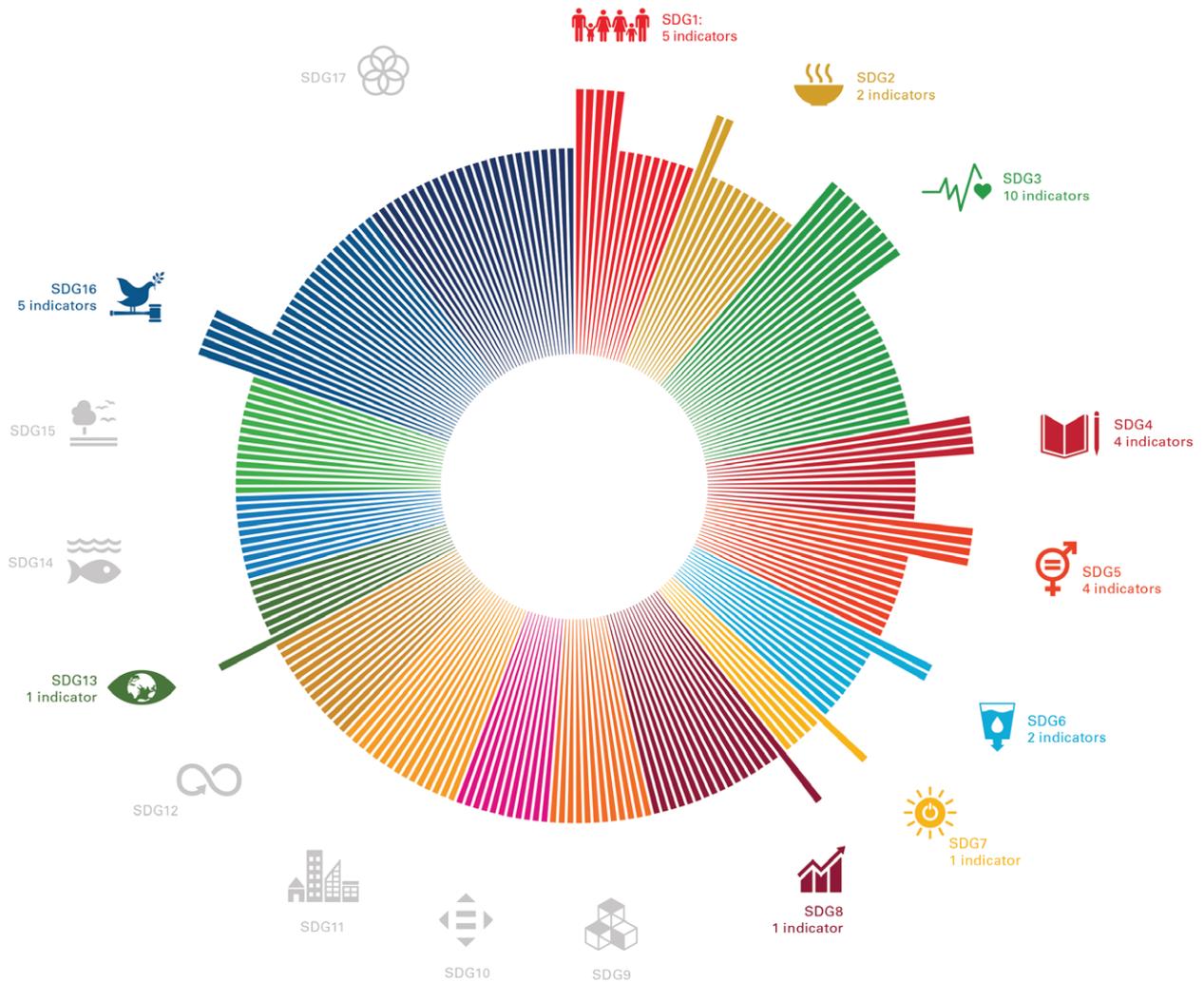
SDG 1: No Poverty
SDG 2: Zero Hunger
SDG 3: Good Health and Well-being
SDG 4: Quality Education
SDG 5: Gender Equality
SDG 6: Clean Water and Sanitation

SDG 7: Affordable and Clean Energy
SDG 8: Decent Work and Economic Growth
SDG 9: Industry, Innovation and Infrastructure
SDG 10: Reduced Inequality
SDG 11: Sustainable Cities and Communities
SDG 12: Responsible Consumption and Production

SDG 13: Climate Action
SDG 14: Life Below Water
SDG 15: Life on Land
SDG 16: Peace, Justice and Strong Institutions
SDG 17: Partnerships for the Goals

Notes: The official list of SDG indicators includes 232 indicators on which general agreement has been reached. Please note that the total number of indicators listed in the global indicator framework of SDG indicators is 244. However, since nine indicators repeat under two or three different targets, the actual total number of individual indicators in the list is 232 (see <https://unstats.un.org/sdgs/indicators/indicators-list/>). While all 35 indicators covered in this report relate to the SDG agenda, some marginally differ from those adopted in the SDG monitoring framework.

National and global monitoring of child-related SDG indicators

The 2030 Agenda

Transforming our world: the 2030 Agenda for Sustainable Development[1] was unanimously agreed by the 193 member states of the UN General Assembly in October 2015. The 2030 Agenda is a plan of action for people, planet and prosperity. Member states resolved to 'end poverty in all its forms', to take bold and transformative steps to 'shift the world onto a sustainable and resilient path', and to ensure that 'no one will be left behind'. The 2030 Agenda establishes 17 Sustainable Development Goals (SDGs) and 169 global targets, relating to both development outcomes and means of implementation (MoI), designed to be integrated and indivisible and to balance the social, economic and environmental dimensions of sustainable development. It further seeks to realise the human rights of all, and to achieve gender equality and the empowerment of all women and girls. This ambitious new universal agenda is intended to be implemented by all countries and all stakeholders, acting in collaborative partnership.

The UNICEF Strategic Plan for 2018-2021 is aligned with the 2030 Agenda and envisages a world in which all children are healthy and protected, live in a clean environment, learn and have a fair chance to succeed[2]. It commits UNICEF to supporting member states to localise the SDGs by setting ambitious national targets relating to children, establishing systems to track progress in reducing inequality, and ensuring that 'no child is left behind'. Among the 232 global SDG indicators, UNICEF has identified 35 that most directly concern children and will be the major focus of UNICEF's efforts to monitor and report on 'progress for every child' during the SDG era[3]. These include 17 global SDG indicators for which UNICEF has been identified as the official custodian or co-custodian for the purposes of global reporting which are discussed in more detail in subsequent briefing notes.

SDG follow up and review

The 2030 Agenda emphasises that governments have primary responsibility for 'follow up and review' of progress towards the SDG goals and targets at national, regional and global levels. It encourages Member States to set their own national targets and to establish regular and inclusive review processes and highlights the need for 'high quality, accessible, timely and reliable disaggregated data' to measure progress. The UN Development Group has published guidelines for UN country teams on mainstreaming the 2030 agenda, tailoring SDG targets to national context, and country reporting on the SDGs[4]. A number of different modalities are envisaged for SDG follow up and review, including:

1. **Voluntary National Reporting**[5] - regular country-led and country-driven reviews of progress at the national and sub-national levels.

2. **Thematic reporting** – periodic reviews by international agencies, UN commissions and expert panels focused on specific cross-cutting issues related to the 2030 Agenda.

3. **Regional reporting** – periodic reviews by regional intergovernmental bodies to promote cooperation, peer review and exchange of lessons on SDG implementation[6].

4. **Global reporting** – reviews by the UN system including the following mandated reports: annual Secretary General's SDG Progress Report, annual Inter-Agency Task Force Report on Financing for Development, and quadrennial Global Sustainable Development Report on the science-policy interface.

The **High Level Political Forum**[7] is the main global platform on Sustainable Development and has a central role in the follow-up and review of the 2030 Agenda. It meets annually under the auspices of the Economic and Social Council and every four years under the auspices of the UN General Assembly and adopts political declarations. The theme of each HLPF, and subset of goals to be reviewed, is agreed in advance. Member states are selected to present national reports which are reviewed together with reports and contributions from other major stakeholders.

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1 United Nations (2015) Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly Resolution A/RES/70/1, 21 October 2015: http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
2 UNICEF (2018) Strategic Plan 2018-2021: https://www.unicef.org/publications/index_102552.html
3 UNICEF (2018) Progress for every child in the SDG era: https://data.unicef.org/resources/progress-for-every-child-2018/

4 https://undg.org/2030-agenda/mainstreaming-2030-agenda/
5 https://sustainabledevelopment.un.org/vnrs/
6 http://www.regionalcommissions.org/regional-forums-on-sustainable-development/
7 https://sustainabledevelopment.un.org/hlpf

SDG briefing note #1
National and global monitoring of
child-related SDG indicators

The global SDG indicator framework

The 2030 agenda mandated the UN Statistical Commission (UNSC) to define global indicators for tracking the SDG goals and targets. The Statistical Commission has established an Inter-Agency & Expert Group on SDG Indicators[8] (IAEG-SDG) 'to develop and implement the global indicator framework for the goals and targets of the 2030 Agenda'. The IAEG comprises a rotating membership of 28 member states[9] representing all regions of the world, with regional and international agencies as observers. UN Statistical Division acts as the secretariat and coordinates inputs from the UN system. The official list of global SDG indicators[10] was approved by the Statistical Commission in March 2017, and subsequently adopted by the General Assembly in July 2017[11]. The UNGA resolution states that the indicator framework will be refined annually and reviewed comprehensively by the Statistical Commission in 2020 and 2025, and that it will be complemented by regional and national indicators which will be developed by Member States.

The IAEG meets twice each year to review progress and challenges associated with implementing the global indicator framework. It has classified the 232 global indicators based on methodological development and data availability[12]. Tier I indicators have established methods and standards and data available for at least 50% of the global population and 50% of countries. Tier II indicators have established methods and standards but data are not regularly produced by countries. Tier III indicators are those for which methods and standards are being developed. At each meeting the IAEG reviews progress made in collecting and reporting on the global SDG indicators and considers proposals for further technical refinements.

The IAEG has also established three working groups to address Statistical Data and Metadata Exchange (SDMX)[13], Geo-spatial Information[14], and Interlinkages[15]. The global indicator framework states that 'indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics'. The IAEG has established a dedicated work stream on disaggregation and requested UN agencies to provide support in operationalising this commitment to 'leave no one behind'.

The UNICEF Data & Analytics Section has been actively involved in providing technical support and advice to the IAEG-SDG on the development, collection, analysis and reporting of child-related SDG indicators at national and global levels and calling for a stronger focus on disaggregation.

Global data custodians

The IAEG-SDG has identified 'custodian agencies' for each of the 232 global SDG indicators which are expected to:

1. Lead the development of methods and standards for data collection,

2. Contribute to statistical capacity building and data collection,

3. Establish mechanisms for compilation and verification of national data,

4. Maintain global databases and provide internationally comparable estimates to UN Statistical Division for inclusion in the SDG global database.

UNICEF is well established in the role of global custodian of data for children. The IAEG has identified UNICEF as custodian or co-custodian for 17 global SDG indicators (Table 1) and it has also been listed as a supporting agency for a number of other indicators in the global framework. Each of these indicators is discussed in detail in subsequent briefing notes #2-15 (see Table 1).

The IAEG is developing guidelines for global data flows and reporting which seek to formalise engagement between national authorities and international agencies, and to establish principles for instances where data from national statistical systems do not meet international comparability and quality standards or are not available. In cases where international agencies make estimates based on national data, or adjust national data to make them comparable, they are expected to provide national statistical authorities with an opportunity to review country-specific estimates of SDG indicators prior to their publication.

UNICEF is committed to supporting member states to develop, collect, analyse and report on SDG indicators related to children and consulting with national authorities on data and estimates used for the purposes of global reporting. In addition to the 17 global SDG indicators for which UNICEF is custodian or co-custodian, UNICEF supports the collection and reporting of a wide range of other child-related indicators relevant for monitoring progress at national, regional and global levels (see below).

8 https://unstats.un.org/sdgs/iaeg-sdgs/
9 https://unstats.un.org/sdgs/iaeg-sdgs/members/
10 https://unstats.un.org/sdgs/indicators/indicators-list/
11 https://undocs.org/A/RES/71/313
12 https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/
13 https://unstats.un.org/sdgs/files/Working-Group-ToR--SDMX.pdf
14 https://unstats.un.org/sdgs/files/Working-Group-ToR--GeoSpatial.pdf
15 https://unstats.un.org/sdgs/files/Working-Group-ToR--Interlinkages.pdf

Table 1: UNICEF is custodian or co-custodian for 17 SDG global indicators (highlighted in bold)

SDG GLOBAL INDICATOR[16]		UNICEF SDG INDICATOR BRIEFING NOTE
1.2.1	National poverty line	Briefing note #2 Child poverty
1.2.2	Multi-dimensional poverty	Briefing note #2 Child poverty
2.2.1	**Stunting**	Briefing note #3 Nutritional status
2.2.2	**Wasting/overweight**	Briefing note #3 Nutritional status
3.1.1	Maternal mortality	Briefing note #4 Maternal mortality and skilled attendant at birth
3.1.2	**Skilled attendant at birth**	Briefing note #4 Maternal mortality and skilled attendant at birth
3.2.1	**Under-five mortality**	Briefing note #5 Child mortality
3.2.2	**Neonatal mortality**	Briefing note #5 Child mortality
3.8.1	Universal health coverage	Briefing note #6 Universal health coverage
3.b.1	**Full vaccination coverage**	Briefing note #6 Universal health coverage
4.1.1	Early learning	Briefing note #7 Learning
4.2.1	**Early childhood development**	Briefing note #8 Early childhood development
5.2.1	**Sexual violence by intimate partner**	Briefing note #9 Violence against girls and women
5.2.2	**Sexual violence by non-intimate partner**	Briefing note #9 Violence against girls and women
5.3.1	**Early marriage**	Briefing note #10 Harmful practices
5.3.2	**FGM/C**	Briefing note #10 Harmful practices
6.1.1	**Safely managed drinking water**	Briefing note #11 Drinking water
6.2.1	**Safely managed sanitation and hygiene**	Briefing note #12 Sanitation and hygiene
8.7.1	**Child labour**	Briefing note #13 Child labour
16.2.1	**Child discipline**	Briefing note #14 Abuse, exploitation and violence
16.2.3	**Sexual violence against children**	Briefing note #14 Abuse, exploitation and violence
16.9.1	**Birth registration**	Briefing note #15 Birth registration

Supporting national target setting and monitoring

The 2030 Agenda states that the SDG targets are 'global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities'[17]. Global targets are therefore considered aspirational, with each Government setting its own national targets 'guided by the global level of ambition but taking account of national circumstances'. It encourages Member States to develop as soon as possible ambitious national responses to the overall implementation of this Agenda. Specifically it calls on each government to: a) decide how the SDGs should be incorporated into national planning processes, policies and strategies; b) set their own national targets guided by the global level of ambition, but taking into account national circumstances; and c) in the implementation of the Agenda build on existing commitments and in accordance with international human rights standards for the benefit of all[18].

UNICEF is committed to supporting Member States to localise the global SDG targets and to set appropriately ambitious national targets that take account of specific needs and priorities for children and available capacities and resources in each country context. This forms part of a coordinated effort by UN agencies to support the implementation of the 2030 Agenda at country level through Mainstreaming, Acceleration and Policy Support (MAPS)[19]. Support needs to be tailored according to context but typical steps include:

1. Reviewing the baseline situation and recent trends (based on existing national data sources and other relevant evidence).

2. Reviewing national targets and indicator frameworks (taking into account the SDGs and other international agreed targets and indicators relating to children)

3. Identification and prioritization of major issues facing children in a given country context (reviewing the specific nature, magnitude and linkages between different challenges faced)

4. Developing nationally appropriate targets and specific measures to be taken (linked to periodic reviews of policies, plans or strategies at national or sub-national level)

5. Defining national indicators and mechanisms for national data collection (promoting global SDG indicators and other priority indicators for children and supporting data collection)

6. Supporting regular and inclusive review processes to assess progress and course correct (compiling and analyzing data and supporting rigorous and participatory review processes to inform decision making at national and sub-national level)

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16 UNICEF uses short hand for ease of communication. See official list: https://unstats.un.org/sdgs/indicators/indicators-list/

17 United Nations (2015) Transforming our world: the 2030 Agenda for Sustainable Development. UN General Assembly Resolution A/RES/70/1, 21 October 2015 (Paragraph 59).
18 https://undg.org/2030-agenda/mainstreaming-2030-agenda/tailoring-sdg-to-national-context/
19 https://undg.org/document/maps-mainstreaming-acceleration-and-policy-support-for-the-2030-agenda/

SDG briefing note #1
**National and global monitoring of
child-related SDG indicators**

In all cases the localisation of global SDG targets and indicators within national policies, plans and strategies requires an in-depth analysis of existing national data to determine the baseline and identify data gaps. National targets should be time bound, with clearly defined indicators and national sources of data to be used to quantify progress. Operational definitions should be developed for key concepts such as 'universal', and the most relevant types of data disaggregation should be clearly identified. Where national standards, for example for service coverage or health outcomes, differ from international standards these should also be clearly specified to inform comparison across countries. Specific concerns relating to measurement and monitoring of individual child-related indicators are discussed in briefing notes #2-15.

UNICEF support to monitoring progress for children in 2030 agenda

UNICEF's support to monitoring SDGs related to children is based on its mandate in the Convention on the Rights of the Child (CRC) to work with Member States in monitoring the progressive realization of child rights. Legitimacy also comes from UNICEF's activities in more than 190 countries including support to governments and development partners in every region to collect, analyse and use data to inform policies and programmes designed to save lives and help children realize their full potential. UNICEF has established extensive global databases and is committed to supporting Member States to monitor progress for children in the 2030 Agenda by developing and testing new indicators and methods and supporting their collection and analysis to inform national and global monitoring of progress for every child.

UNICEF has played a leading role in the development of new standards and data collection methods for monitoring child well-being. Many of the measurement techniques developed by UNICEF and its partners during the MDG period have now been integrated within the SDG global indicator framework. These are discussed in more detail in subsequent briefing notes relating to specific SDG targets and indicators and include: enhanced methods for estimating child mortality based on limited data, techniques for integrating data household survey and administrative data to estimate immunisation coverage, new household survey modules on child discipline, ECD, child and adult functioning, child learning assessments, water quality testing and migratory status, and new methods for measuring multi-dimensional child poverty.

UNICEF also supports the collection and analysis of a wide range of data relating to children beyond SDG indicators, including through government surveys and censuses, administrative and regulatory data, and participatory reporting by service users and citizens including parents, adolescents and children. Over the past 20 years, the Multiple Indicator Cluster Survey programme has systematically built the capacity of national statistical authorities around the world to collect child-related data. UNICEF also actively supports the development of censuses and administrative data sources, including civil registration and vital statistics systems and sectoral management information systems.

UNICEF has a strong track record of working in partnership with other agencies to support both government and non-government partners to collect robust data and conduct rigorous analysis of critical indicators of child health and welfare. Continued support will be critical to consolidate the gains made to date and to enable national authorities and development partners to respond to new and increasing demands for data.

Monitoring progress for every child in the SDG era

As stated above, related to the 232 global SDG indicators, UNICEF has identified 35 that most directly concern children and will be the major focus of UNICEF's efforts to monitor and report on 'progress for every child' during the SDG era[20]. These include the 17 global SDG indicators for which UNICEF has been identified as the official custodian or co-custodian for the purposes of global reporting which are discussed in more detail in subsequent briefing notes.

The relation of child-related indicators to official SDG indicators is complicated. There are SDG indicators which have a broad scope, but UNICEF wants to measure the child-related elements (e.g. UNICEF monitors child poverty, but the SDG indicator is for poverty disaggregated by age. Other indicators are composite, which UNICEF breaks into separate indicators (such e.g. HIV infections for children under five, and for teens – the formal SDG indicator lumps these together). So the 35 child-related global SDG indicators can be further, separated and disaggregated to highlight the children's issues.

Of those 35, how many are UNICEF Strategic Plan indicators? For how many is UNICEF custodian (or co-custodian)? How many are collected in MICS? The answers are in the following diagram.
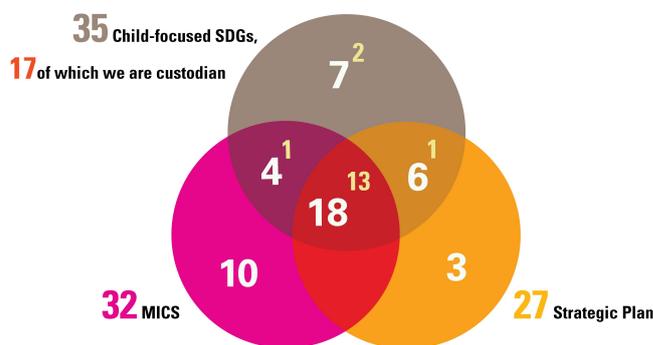
Resources

- SDG website: http://www.un.org/sustainabledevelopment/
- IAEG website: https://unstats.un.org/sdgs/iaeg-sdgs/
- UNDG website: https://undg.org/2030-agenda/
- UNICEF data: https://data.unicef.org/
- Countdown 2030: http://countdown2030.org/

20 UNICEF (2018) Progress for every child in the SDG era: https://data.unicef.org/resources/progress-for-every-child-2018/

UNICEF

GOAL 1
End poverty in all its forms everywhere

TARGET 1.2

By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

Target overview

SDG monitoring

The SDGs call for reducing poverty in all its dimensions. Target 1.2 aims to measure the level of poverty and its reduction using national definitions and metrics of poverty (monetary and non-monetary), expressly mentioning children. This is the first time that global poverty goals have been specific to children and means, at the minimum, that children (aged 0-17) have to be identified in all national poverty reporting for SDGs.

Target 1.2 includes the following indicators, described in more detail in this briefing note:

- 1.2.1: Proportion of population living below the national poverty line, by sex and age
- 1.2.2: Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

Broader monitoring context

Monitoring child poverty requires both traditional 'monetary poverty' measurement, which can assess the living standards of children's families, and 'non-monetary' assessments of children's material well-being, especially their deprivation, opportunities and outcomes.

Although both SDG indicators 1.1.1 and 1.2.1 are based on monetary poverty and have common underlying assumptions, indicator 1.2.1 is measured according to a national poverty line that is considered appropriate by individual countries, i.e. it reflects the actual cost of living (minimum basket of goods and services) in each country.

Beyond monetary poverty, indicator 1.2.2 aims to capture the multidimensional nature of poverty by assessing the extent to which households are materially deprived. While monetary poverty measures whether household income/consumption surpasses the poverty line, hypothetically enabling them to satisfy their basic needs, multidimensional poverty measures whether those needs are actually satisfied. Although the basic approach is generally the same, multidimensional poverty has been measured using different deprivation thresholds and assumptions in various countries[1]. UNICEF is working with UNDP and World Bank to coordinate support for measurement of multidimensional poverty.

Note that these two indicators are ideally considered within a broader array of indicators related to child well-being. Household income could surpass the poverty line because children beg in the streets or are engaged in hazardous work. Household income could increase because parents work extremely long hours, leaving children abandoned, neglected, and without any adult supervision, comfort, or guidance. Household income may be above the poverty line, yet if social services are unavailable (e.g. in rural areas) or unaffordable, it does no good to children who will still be left without education or health care.

1 Although labeled differently (MODA, Bristol, MPI), all of these measurements apply a variant of the Alkire-Foster formula. While the MPI is not focused on children and child indicators, it could be disaggregated by age (the same way the monetary poverty can be disaggregated). Bristol and MODA estimates explicitly measure Child Poverty.

UNICEF role in monitoring

Within UNICEF's Strategic Plan (SP), child poverty is a result area under Goal Area 5 (Equity: Every Child Has a Fair Chance in Life). The SP does not include country-specific poverty measures as detailed in this briefing note. In order to allow for consistent monitoring of change against targets, the SP indicators are SDG indicator 1.1.1 (disaggregated for children) and the Global MPI for children. Notably, child poverty is not only part of Goal Area 5, but indeed underlies and is intertwined with the entire Strategic Plan Results Framework.

At the country level, technical capacity underlying monetary poverty measurement is usually higher than for multidimensional poverty; therefore, aiming for constructive engagement in disaggregation for children is probably a good starting point on a government-owned measure that will have high levels of political investment. UNICEF can have an impact by promoting the disaggregation of national poverty-line headcount poverty measures for children (ages 0-17, and also for disaggregated age groups of children).

UNICEF has provided technical leadership on measurement of multidimensional poverty, both at the global and country levels. Thus, both regionally and in many countries child multidimensional poverty has been estimated (including trends for the last 10-15 years). It is important to note that because multidimensional poverty measurement does not require income/consumption data, it can be estimated using household data collected in MICS and similar surveys (e.g., DHS). Consequently UNICEF can play a critical technical role to support monitoring efforts at the country level.

General information and resources

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

- End Child Poverty Coalition: http://www.endchildhoodpoverty.org/publications-feed/2017/4/3/a-world-free-from-child-poverty-a-guide-to-the-tasks-to-achieve-the-vision

For further information, please contact the child poverty focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

Proportion of population living below the national poverty line, by sex and age

Description

Definition and key terms

The national poverty rate is the percentage of the total population living in households below the national poverty line. The National Poverty Line is the cost of a collection of goods and services deemed the minimum that every household should enjoy to ensure a decent standard of living.

Numerator: people with income/consumption below the national poverty line.

Denominator: total population.

National data sources

Monetary poverty is calculated at the household level using representative data from household surveys of consumption and/or income. Different approaches are used, however. Most developing countries estimate an absolute poverty line to capture the cost of a basic minimum standard of living, while many high-income countries, such as those in the European Union, tend to use relative poverty lines. The former measures whether a household can afford a minimum set of basic goods and services while the latter compares household consumption/income to the average or normal level in the country (thus, it is very close to measuring income distribution). Broad guidelines of the best approaches to measuring income poverty and consumption poverty have been produced by the Canberra Group and Deaton and Zaidi.

Using national poverty lines, it is easy to compute the proportion of children living in households with income or consumption levels below this line (because the number of children in the household is information that any good quality household survey would have). However, the majority of countries do not routinely disaggregate household members by age (in particular children) when reporting on monetary poverty. Although there are indeed some complexities behind monetary poverty measurement, it is critically important to note child level profiles are relatively easy once the poverty methodology is in place and the country is reporting poverty.

Data collection innovation

There are a couple of notable advances in monetary poverty measurement:

- The development of cross-survey imputation approaches that will help consistent monetary measures for poverty to be produced more regularly and also for imputed poverty data to be produced in surveys that do not directly capture income or consumption.

- The development of 'rapid survey' approaches that can capture key data to profile more recent changes in poverty and living standards after full consumption or income surveys have been put in place.

Using the indicator

Interpretation

Tracking children living in households beneath the national poverty line is not only a clearly articulated component of SDG Target 1.2 but is also a powerful tool for policy and advocacy work on poverty-related issues and on resource allocation. National poverty lines are key to informing 'poverty reduction strategies' and are often used as both a metric for measuring 'development' progress and for allocation of government spending.

An absolute poverty line can be constructed considering only the cost of food (i.e. of purchasing a culturally appropriate diet that ensures a minimum calorific intake). This is often called the indigence or food poverty line. When additional items are included (to consider, besides food, other basic necessities like lodging, clothing, and transportation) the proper monetary poverty line is obtained. In large countries, given the variety of climates and, consequently, the required minimum basket of goods and services there may be more than one poverty line (e.g. a rural and an urban one).

As relative poverty measurement is about income distribution, it is important to understand the likely impact of economic growth (or recession) in its measurement. Median income may go up during economic growth – increasing poverty even when the living standards of the poor are rising; conversely, relative poverty may fall during a recession if median income falls. To ensure good interpretation of trends, the practice is to 'anchor' the line to a specific real value in the first year of a time series. The OECD provides guidance on current best practice.

In addition, it is important to consider the sensitivity of income/consumption changes around the poverty line and what that means in terms of measuring poverty reduction. A large part of the population usually have income or consumption at levels very close to the poverty line. For example, being 1 percent over the national poverty line will mean that you are no longer 'poor', but in practical terms your living standard may be indistinguishable from those who are just below the poverty line.

Whichever national poverty line indicator is being used for SDG reporting, for UNICEF policy and advocacy work, it is important to interpret these data within a broader range of measures, in particular multidimensional poverty (SDG indicator 1.2.2). For instance, a good practice is to cross-tabulate both estimates.

Disaggregation

Disaggregation is commonly available for rural and urban areas. Whenever possible, this indicator should be further disaggregated by age groups under 18 years of age to provide more detailed data. Standard age ranges generally include 0-4, 5-9, 10-14 and 15-17, although countries may want to align reporting to reflect key policy markers (for example, school age children). In addition, it is useful to disaggregate the elderly (e.g., separating adults at the age of retirement)

Although urban-rural residence and age are the most important breakdowns, in some countries it may also be useful to generate sex-disaggregated estimates. The general assumption is that girls and boys will have equal poverty rates as measurement is done at the household level, but it is possible to observe different boy-girl poverty rates in some countries. This may be due to gendered co-residence patterns post-divorce or among those with absent, migrant parents.

Common pitfalls

One common pitfall is comparing absolute to relative levels of poverty. As explained above these are conceptually different. Both provide useful information.

Another pitfall concerns the terms people use when referring to monetary poverty. Monetary poverty could be measured using income or consumption (expenditures). The latter is usually easier to measure than the former (due to issues of recollection and "hiding" income). However, many people use the term 'income poverty' when talking about 'monetary poverty', even when it is actually measured using consumption. This 'shorthand' causes confusion and greater care should be used to avoid it (in particular when making comparisons) as, obviously, different things are being measured.

Monitoring and reporting

National

National Statistical Offices

Global

Agencies: World Bank

Note that although the World Bank is the custodian agency for indicator 1.2.1, UNICEF is listed as a partner agency and has been actively involved in supporting the production of disaggregated estimates for children. See below.

Process: National poverty estimates are typically produced and owned by country governments (e.g., National Statistic Office), and sometimes with technical assistance from the World Bank and UNDP. Upon release of the national poverty estimates by the government, the Global Poverty Working Group of the World Bank assesses the methodology used by the government, validates the estimates with raw data whenever possible, and consults the country economists before publishing. Accepted estimates, along with metadata, will be published in the WDI database as well as the Poverty and Equity Database of the World Bank.

Beyond the global data compilation done by the World Bank, UNICEF has been leading attempts to compile and report national monetary child poverty rates through its Country Reporting on Indicators for the Goals (CRING) data and makes these data available on <https://data.unicef.org/>.

Timing: The World Bank releases new poverty estimates every two years to coincide with publication of its biennial Poverty and Shared Prosperity reports in the final quarter of even years.

Discrepancies with national estimates: As global-level reporting is still under discussion, the extent to which there may be discrepancies with national estimates is still unclear.

Key resources

Standard guidance on national poverty measurement:

- The Canberra Group: https://www.scribd.com/document/75099730/Canberra-Group-Handbook-on-Household-Income-Statistics
- Deaton and Zaidi (2002): http://documents.worldbank.org/curated/en/206561468781153320/pdf/multi0page.pdf

More information from partner organizations:

- OECD: http://www.oecd.org/els/soc/CO_2_2_Child_Poverty.pdf
- European Union: http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:At_risk_of_poverty_or_social_exclusion_(AROPE)
- World Bank: http://documents.worldbank.org/curated/en/488081468157174849/Handbook-on-poverty-and-inequality

INDICATOR 1.2.2

Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

Description

Definition and key terms

Proportion of children suffering material deprivation (i.e. they are deprived of rights constitutive of poverty).

Key terms:

- Rights constitutive of poverty: Rights the fulfillment of which depends mainly on material resources (e.g., health, nutrition, etc.). These are clearly associated with material deprivation and/or the absence of public goods and services that are needed to satisfy basic human needs.

- Dimensions of poverty: each of the constitutive rights is a dimension in the multidimensional analysis of poverty. Deprivation is measured for each dimension.

- Deprivation: state of observable and demonstrable disadvantage relative a particular (national or international) standard or threshold.

- Continuum of deprivation: Deprivation happens along a range from no deprivation, through mild, moderate and severe deprivation to extreme deprivation at the end of the scale.

National data sources

Large scale, multi-dimensional child poverty measurement is commonly based on standardized household survey data, specifically MICS and DHS surveys.

Data collection innovation

Multidimensional poverty measurement is a fairly recent area of work, one that has grown rapidly since UNICEF commissioned the London School of Economics and Bristol University to carry out the groundbreaking 2003 report on global multidimensional child poverty for children. Different assumptions to measure multidimensional poverty have been used in different countries (partly due to data limitations) under the same approach (and using essentially the same formula). There has been no coordinated interagency guidance to date, although work is underway to document emerging approaches and existing metadata that could potentially be aggregated and used for SDG reporting at the global level.

Using the indicator

Interpretation

It is well understood that children experience poverty differently from adults. They live it and feel it differently. The indicator measures how many children (and percentage of children) are poor. In other words, the proportion of children materially deprived. The measurement of multidimensional Child Poverty is not about lack of income or wealth (of the parents). It is about their actual deprivation of the rights that constitute poverty. Not all rights violations constitute poverty – only those clearly associated with material deprivation. In other words, when discussing multidimensional Child Poverty, it is the deprivation of those rights that makes the child poor. Multidimensional Child Poverty is the direct observation (and measurement) of the material deprivations suffered by children. Multidimensional Child Poverty is NOT a proxy or a substitute or a marker of lack of income.

Disaggregation

Data on multidimensional child poverty can be disaggregated by age (most commonly 0-5, 6-17), sex, geographic area, place of residence, mothers' education, and household wealth, as well as other background characteristics. At the country level, in particular for programming and planning purposes, the disaggregation by sex, and place of residence are the most essential.

Common pitfalls

One common pitfall is the inclusion of dimensions which are not rights constitutive of poverty. Not everything that is bad that happens to children constitutes or is poverty. In particular, multidimensional Child Poverty is about material deprivation, not inappropriate behaviour.

All rights are equally important and caution is required when creating an index or listing the number of deprivations. In principle there should be no differentials in weighting the different dimensions as this implies trading off one right for another (e.g. health is 3.14 times more important than nutrition) and leads to the distinct possibility that children suffering severe deprivation in three or even four dimensions would not be considered poor. Statistical analysis and weighting within each dimension is therefore possible in order to find the best way to assess its deprivation using different variables.

Child Poverty is about the experience of the whole child. This means all the dimensions must be assessed simultaneously for the same child (consequently, it cannot be estimated using different sources of information). It also means that a single, total estimate for all children younger than 18 of age should be calculated.

Monitoring and reporting

National

National Statistical Offices

Global

Agencies: National Governments are listed as custodian agencies for reporting on SDG indicator 1.2.2 (according to national definitions). UNICEF, World Bank and UNDP are identified as supporting agencies and discussions are ongoing about the potential for aggregation of national data for the purpose of global reporting.

Process: UNICEF has been leading attempts to compile and report multidimensional child poverty rates through national and regional reports. However, so far, these have not been globally coordinated. It is expected that this indicator will soon be incorporated into the Country Reporting on Indicators for the Goals (CRING) process. Ideally, these estimates will be reported in the SOWC or at least be available on-line

Timing: As the major sources of data on multidimensional Child Poverty are MICS and DHS surveys which are carried out periodically (roughly every 3-5 years) at country levels (staggered across regions and countries), it would be possible to update global and regional estimates every year. For a large number of countries it is already possible to construct time series spanning a decade or more.

Discrepancies with national estimates: As global-level reporting is still under discussion, the extent to which there may be discrepancies with national estimates is still unclear.

Key resources

- End Child Poverty Coalition guide: http://www.endchildhoodpoverty.org/publications-feed/2017/4/3/a-world-free-from-child-poverty-a-guide-to-the-tasks-to-achieve-the-vision

GOAL 2

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

TARGET 2.2

By 2030 end all forms of malnutrition, including achieving by 2025 the internationally agreed targets on stunting and wasting in children under five years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons

Target overview

SDG monitoring

SDG Target 2.2 includes the following indicators, described in more detail in this briefing note:

- 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)[1]

1 Indicator 2.2.2 covers both wasting and overweight but these are reported separately.

Broader monitoring context

Many countries have been collecting data on children's anthropometric measurement (height and weight) for decades, and there is a well-established methodology for data collection and analysis. Most nationally representative anthropometric data come from household surveys, which can also provide information on the range of critical practices that can prevent malnutrition.

The focus of prevention efforts center around the "first 1000 days" – while a mother is pregnant and during a child's first two years of life – because this is when nutrition interventions have been proven to offer children the best chance to survive and reach optimal growth and development. Thus, it is necessary to look across a broader range of indicators when assessing progress toward Target 2.2.

Breastfeeding:
- Early initiation of breastfeeding (EIBF): Proportion of children born in the last 24 months who were put to the breast within one hour of birth

- Exclusive breastfeeding (EBF): Proportion of infants 0-5 months of age who are fed exclusively with breastmilk

Diet:
- Percent of Minimum Diet Diversity (MDD): Proportion of children 6-23 months of age who receive food from 5 or more out of 8 food groups

- Minimum Meal Frequency (MMF): Proportion of breastfed and non-breastfed children 6-23 months of age who receive solid, semi-solid, or soft foods the minimum number of times or more

- Minimum Acceptable Diet (MAD): Proportion of children 6-23 months of age who receive a minimum acceptable diet

Birthweight:
- Prevalence of Low Birthweight: Proportion of newborns weighing less than 2,500 grams

- Percentage of Newborns Weighed (or Unweighed): Percentage of live births that were weighed (or not weighed) at birth

Beyond the SDGs, the importance of child nutrition has also been highlighted in other initiatives. The Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition (MIYCN), endorsed by member states at the World Health Assembly (WHA) in 2012, as well as the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) include these indicators.

UNICEF's role in monitoring

SDG Target 2.2 is firmly linked to Goal 1 of UNICEF's Strategic Plan – Every Child Survives and Thrives-- and specifically the result area of nutritional status of children. UNICEF, together with WHO and the World Bank, is a co-custodian for global monitoring of SDG indicators 2.2.1 and 2.2.2. UNICEF maintains global databases not only on the two SDG indicators, but also the broader range of infant and young child feeding (IYCF) and other indicators including Vitamin A coverage, household iodized salt consumption, and low birthweight and coverage of newborns weighed..

UNICEF also actively supports countries in data collection and analysis of all these indicators primarily through high-quality MICS surveys, as well as providing technical support to other surveys. In particular, for areas UNICEF maintains global databases for, UNICEF not only supports measurement in household surveys but also works with global partners to define technical standards for the collection and analysis of anthropometric data.

General information and resources

- UNICEF data: https://data.unicef.org/topic/nutrition/malnutrition/

- MICS: https://mics.unicef.org

- Global Nutritional Monitoring Framework: http://www.who.int/nutrition/topics/proposed_indicators_framework/en/

- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the nutrition focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 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

INDICATOR 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)

Description

Definition and key terms

Stunting

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.

Numerator: Number of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median height-for-age of the reference population

Denominator: Children under 5 years of age in the surveyed population

Overweight

Prevalence of overweight (weight for height >+2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age.

Numerator: Number of under-fives above 2 standard deviations from the median weight-for-height of the reference population

Denominator: Children under 5 years of age in the surveyed population

Wasting

Prevalence of wasting (weight for height <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age.

Numerator: Number of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median weight-for-height of the reference population

Denominator: Children under 5 years of age in the surveyed population

Key terms:

- Prevalence of underweight, stunting and wasting among children under 5 is estimated by comparing actual measurements to an international standard reference population. Since their release in April 2006, the WHO Child Growth Standards have been the recommended standard, replacing the previously used National Center for Health Statistics (NCHS)/WHO reference population.

- A standard deviation measures a standard or typical distance that data are from the average

National data sources

Population-based surveys: Population-based surveys are the preferred data source in the majority of countries because it is essential to base measurement on a representative sample of children, including those who may not have contact with the health system. The most common population-based surveys collecting these data globally according to standard protocols are DHS, MICS and LSMS surveys. SMART surveys, which are conducted in a number of countries, may produce data not readily comparable to the other survey programmes subject to the methodology and scope of the surveys. Depending on the country, surveys collecting these data may be conducted every 3-5 years, or possibly at more frequent intervals.

Surveillance systems: Surveillance systems may be used if sufficient population coverage is documented (about 80%). They are used in a limited number of countries. These data may be used to track the indicator on an annual basis.

Regardless of the data source, the child's height and weight measurements have to be collected following recommended standard measuring techniques.

Data collection innovation

The equipment for measuring height presents a number of challenges that can impact on the quality of data collected. An innovation project is underway to identify new products with the potential to reduce error in taking, reading and recording length and height measurements. The Target Product Profile (TPP) for such a device was developed in 2016 and the request for proposals in line with the TPP[2] was launched in 2017 with the evaluation of prototypes set for Q2 2018.

2 See Target Product Profile <https://www.unicef.org/supply/files/HMD_TPP_V2.0.pdf>

Using the indicators

Interpretation

Malnutrition, which encompasses both undernutrition and overweight, jeopardizes children's survival, health, growth and development. Although malnutrition is often an invisible problem, it can have enormous lifelong consequences and affect countries' socio-economic development and potential to reduce poverty.

Stunting refers to a child who is too short for his or her age. Stunting is the failure to grow both physically and cognitively and is the result of chronic or recurrent malnutrition. The devastating effects of stunting can last a lifetime.

Overweight refers to a child who is too heavy for his or her height. This form of malnutrition results from expending too few calories for the amount consumed from food and drinks and increases the risk of noncommunicable diseases later in life.

Wasting refers to a child who is too thin for his or her height. Wasting, or acute malnutrition, is the result of recent rapid weight loss or the failure to gain weight. A child who is moderately or severely wasted has an increased risk of death, but treatment and recovery is sometimes possible.

Some children suffer from more than one form of malnutrition – such as stunting and overweight or stunting and wasting.

Prevalence estimates for stunting and overweight are relatively robust. It is therefore possible to track changes in these two conditions over time. Wasting is an acute condition that can change frequently and rapidly (for example, a population may experience rapid fluctuations over the course of a given year) which can make it difficult to generate reliable trends over time.

Disaggregation

Disaggregated country data are available in a majority of household surveys, and typically include sex, age groups, household wealth, mothers' education, residence. UNICEF's expanded databases include disaggregated data.

Common pitfalls

Poor quality data are unfortunately all too common. Accurate estimates of stunting, overweight and wasting rely on accurate measurement of height and weight as well as child's age. Surveys with field personnel who are not well trained or well supervised may yield poor quality data, and so the global household survey programmes such as MICS and DHS not only provide detailed guidelines on training and fieldwork implementation but also run specific data quality checks on the collected data in order to assess data quality.

Data from household surveys are collected infrequently and measure malnutrition at one point in time (e.g. during several months of field work), making it difficult to capture the rapid fluctuations in wasting that can occur over the course of a given year.

Although stunting and overweight are more stable, it may also be challenging to compare estimates over time. Beyond the previously noted issue of poor data quality, estimates may not be comparable if they are based on different reference populations or children of different ages. Furthermore, some surveys that collect anthropometric data are not nationally representative, either by design (deliberately collecting data in a specific part of the country) or through flaws in the sample design and/or implementation.

Table 1. Prevalence thresholds have been established to classify levels of stunting, wasting and overweight

LABELS	PREVALENCE THRESHOLDS (%)		
	WASTING	OVERWEIGHT	STUNTING
Very low	< 2.5	< 2.5	< 2.5
Low	2.5 - < 5	2.5 - < 5	2.5 - < 10
Medium	5 - < 10	5 - < 10	10 - < 20
High	10 - < 15	10 - < 15	20 - <30
Very high	≥ 15	≥ 15	≥ 30

Monitoring and reporting

National

National Statistical Offices, Ministries of Health

Global

Agencies: UNICEF, WHO and the World Bank group

Process: UNICEF, WHO and the World Bank group jointly review new data sources to update the country level estimates. Each agency uses their existing mechanisms for obtaining data, with UNICEF relying on annual updates from its network of field offices through the CRING (Country Reporting on Indicators for Goals) as well as its survey repository with weekly updates of all major surveys conducted. Currently, regional and global estimates are modelled based on available national-level data.

A Technical Expert Advisory Group on Nutrition Monitoring (TEAM), jointly established by UNICEF and WHO, provides advice on key priorities for nutrition monitoring.

Timing: Global and regional estimates are released annually every May. The country level dataset is updated and released more often than the global/regional estimates.

Note that the entire time series is updated yearly and should not be compared with previously released estimates.

Discrepancies with national estimates: There are several reasons why discrepancies between global and national estimates may exist.

1. Exclusion due to data quality: Before inclusion in global databases, country data are subjected to a careful data quality review. Any estimate that is not nationally representative or that does not met specific data quality criteria in terms of consistent measurements or age reporting is not accepted.

2. Age adjustments: If a survey collected data based on a non-standard age group (for example, under 3 years of age), then some age adjustment needs to be applied to make these estimates comparable to those based on the standard age range of 0-59 months.

3. Adjustment of reference population: Prevalence estimates need to be calculated according to the same reference population in order to be comparable. In the event that a country has an estimate based on the previously used NCHS/WHO reference population, UNICEF HQ will recalculate so that the estimate is based on the current WHO Child Growth Standards.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/nutrition/malnutrition/

- SDG metadata: https://unstats.un.org/sdgs/metadata/

Methodological information on global estimation of child nutritional status:

- Estimates of Global Prevalence of Childhood Underweight in 1990 and 2015. JAMA. 2004; 291(21):2600-2606. doi:10.1001/jama.291.21.2600

UNICEF

GOAL 3

Ensure healthy lives and promote well-being for all at all ages

TARGET 3.1

By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

Target overview

SDG monitoring

SDG Target 3.1 includes the following indicators, described in more detail in this briefing note:

- 3.1.1 Maternal mortality ratio
- 3.1.2 Proportion of births attended by skilled health personnel

Broader monitoring context

Identifying maternal deaths is challenging across countries at all levels of development and, even those with strong vital registration systems, resulting in sparse and inconsistent data worldwide. Maternal deaths are difficult to measure owing to many factors; for example, identifying cause of death requires medical certification and in some cases there may be reluctance on the part of family members to even report a death (in the case of an abortion-related death, for instance).

Due to the challenges of tracking maternal mortality, it is necessary to look across a broad range of indicators related to maternal health, both to better track progress on the target and also to inform programming. The indicators below go beyond the SDGs, but are recommended by key health initiatives harmonized with the SDGs, specifically the Global Strategy for Women's, Children's and Adolescents' Health (2016-2030) and Ending Preventable Maternal Mortality (EPMM).

- Proportion of women aged 15-49 who received four or more antenatal care visits
- Proportion of women who have postpartum contact with a health provider within 2 days of delivery
- Proportion of births delivered in a health facility
- Proportion of births delivered by Caesarean section

UNICEF's role in monitoring

UNICEF plays a leading role in monitoring Target 3.1, which is firmly linked to Goal 1 of UNICEF's Strategic Plan – Every Child Survives and Thrives – and specifically the result area of maternal and newborn care. Together with WHO, UNFPA and The World Bank and UN Population Division, UNICEF is a member of the United Nations Maternal Mortality Estimation Inter-agency Group (UN-MMEIG), which produces cross-country comparable estimates of MMR for global reporting.[1] UNICEF is the lead custodian for SDG indicator 3.1.2 and jointly with WHO maintains a database on births attended by skilled health personnel. MICS surveys, which provide high-quality, standardized data on a range of key maternal health indicators, are one direct way in which UNICEF supports countries to monitor maternal health.

General information and resources

- UNICEF data: https://data.unicef.org/
- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org
- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the maternal health focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

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1 In addition to the maternal mortality ratio, the UN-MMEIG provides estimates for a number of related measures that provide insight into different aspects of maternal mortality, such as the maternal mortality rate and the adult lifetime risk of maternal death.

INDICATOR 3.1.1
Maternal mortality ratio

Description

Definition and key terms

The maternal mortality ratio (MMR) is defined as the number of maternal deaths per 100,000 live births during the same time period.

Key term:

- Maternal mortality refers to deaths due to complications from pregnancy or childbirth. This includes deaths of women while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management.

National data sources

Worldwide, the two most common sources of data are vital registration systems and population-based surveys. Estimates can also be obtained from a variety of other sources, including health facility-based data, censuses, and RAMOS (reproductive-age mortality surveys) and surveillance.

Vital registration: This is the preferred data source in countries with complete reporting of deaths and good cause of death attribution. These data can be used to track the indicator on an annual basis.

Population-based surveys: The most common approach for collecting maternal mortality data in population-bases surveys is obtaining information by interviewing respondents about the survival of all their adult sisters. Population-based surveys are generally only recommended in the absence of data from another source. This is due to the large confidence intervals and retrospective estimates that generally refer to a period of time with a midpoint around 3-4 years before the survey.

Data collection innovation

There is a long history of maternal mortality data collection and methods are well-established. However, there is work underway on strengthening maternal and perinatal deaths surveillance, with one component being a baseline survey to gather information about the extent of Maternal Death Surveillance and Response implementation in low- and middle-income countries.

Using the indicator

Interpretation

Maternal mortality is widely acknowledged as a general indicator of the overall health of a population, of the status of women in society, and of the functioning of the health system. It is therefore useful for advocacy purposes, in terms both of drawing attention to broader challenges faced by governments and of safe motherhood. This indicator can show the magnitude of the problem of maternal death in a country as a stimulus for action. Where estimates can be reliably produced at a subnational level, these may help to set priorities.

The MMR measures the risk of a woman dying once she is pregnant. In populations with high levels of fertility, a woman will be exposed to this risk many times and thus is more likely to die from a maternal cause. Considering the MMR together with the indicator "adult lifetime risk of maternal death" (which also takes into account fertility) can provide more insight into maternal mortality in a country.

Although the *global target* for indicator 3.1.1 is less than 70, it should be noted that MMRs of less than 10 are common in countries with well-functioning health systems that provide a continuum of maternal care services during pregnancy, delivery, and the post-partum period.

Notably, maternal mortality is just "the tip of the iceberg" – for each woman that dies, many more suffer from serious conditions that can affect them the rest of their lives. Therefore, in order to identify where the major issue in the health system lies, it is important to monitor other relevant maternal health indicators such as the ones listed in the Target Overview above.

Disaggregation

MMR data may only be disaggregated if they are of sufficient quality and scope to robustly capture differences among subgroups. Generally speaking, disaggregation from household survey data is not advised.

Where appropriate, it is most useful to disaggregate data at a subnational level, for example into rural versus urban or administrative regions. Data may also be disaggregated by other characteristics of the mother, including age and other socioeconomic characteristics for which data are available.

Common pitfalls

Maternal mortality estimation is difficult across all countries irrespective of their level of development, resulting in this indicator being challenging to track over time and frequent discrepancies across data sources.

The maternal mortality ratio requires more information than just knowing that a death occurred. Accurate information is also needed on cause of death, pregnancy status, and timing of death. For example, cause of death may be misclassified if the woman was suffering from a preexisting condition. Similarly, a death may not be classified as maternal if the woman's pregnancy status was not known. Thus, available data suffer –in various degrees– from significant levels of misclassification and underreporting of maternal deaths. This is true even when reported from national vital registration systems that are considered strong.

Another measurement challenge is that maternal deaths are a relatively rare event. The MMR is measured per 100,000 live births, in contrast to the under-five mortality rate which is measured per 1,000 live births. This means that estimates are bracketed by wide ranges of uncertainty.

Monitoring and reporting

National

National Statistical Office, Ministry of Health

Global

Agencies: The Maternal Mortality Estimation Inter-agency Group (UN-MMEIG), composed of WHO, UNICEF, UNFPA and The World Bank and the UN Population Division.

Process: The UN-MMEIG compiles all available country-level maternal mortality data. Data are adjusted for underreporting and misclassification of deaths and then statistical modelling is undertaken to generate comparable country, regional, and global level estimates. UNICEF is involved at all stages of preparing the estimates, but has a particular role in compiling maternal mortality data from household surveys, as well as the skilled attendant at birth data used in the model. Before publishing the estimates, a country consultation is conducted, led by WHO, allowing countries to review the interagency results and provide feedback.

Timing: The UN-MMEIG produces new estimates every couple of years.

Discrepancies with national estimates: As noted above, global MMR estimates are derived from data adjusted for underreporting and misclassification of deaths. Therefore, discrepancies between global modelled estimates and unadjusted national estimates are common and often need to be clarified during country consultation. Academic groups such as IHME occasionally publish estimates using alternative modelling approaches which can cause confusion when countries are not consulted on the methods or the estimates.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF data: https://data.unicef.org/topic/maternal-health/maternal-mortality/

- SDG metadata: https://unstats.un.org/sdgs/metadata

Tools and measurement guidance:

- MICS questionnaire for individual women: http://mics.unicef.org/tools

- DHS women's questionnaire: https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

Methodological information on global maternal mortality estimation:

- Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *The Lancet*, Volume 387, Issue 10017, 462 – 474

INDICATOR 3.1.2

Proportion of births attended by skilled health personnel

Description

Definition and key terms

Percentage of deliveries attended by skilled health personnel, generally doctors, nurses, or midwives.

Key terms:

- Skilled birth attendants are generally accredited health professional trained in providing lifesaving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period, conducting deliveries on their own, and caring for newborns. The current definition is under revision by UNICEF, WHO and UNFPA. The revised definition will center around the competencies and enabling environment the skilled birth attendance should have in order to provide safe services to the mother and newborn.

National data sources

Routine service/facility records: This is the preferred data source in countries where a high proportion of births occur in health facilities and are therefore recorded. These data can be used to track the indicator on an annual basis.

Population-based surveys: This is the preferred data source in countries with a low utilization of delivery services, where private sector data are excluded from routine data collection, and/or with weak health information systems. In MICS, DHS and similar surveys, the respondent is asked about the last live birth and who helped during delivery for a period up to five years before the interview. The surveys are generally undertaken every 3 to 5 years.

Data collection innovation

A guidance document including a revised operational definition for skilled birth attendant will be released by WHO, UNICEF and other partners in 2018. This new guidance may be helpful in revising data collection instruments and interpreting results.

Using the indicator

Interpretation

Births attended by skilled health personnel is an indicator of health care utilization. It is a measure of the health system's functioning and potential to provide adequate coverage for deliveries. On its own, however, this indicator does not provide insight into the availability or accessibility of services. Neither does this indicator capture the quality of care received.

Unlike the MMR, this indicator can be reliably disaggregated and thus helps programme managers track progress at national and subnational levels by indicating whether safe motherhood programmes are on target in the utilization of professional assistance at delivery.

Disaggregation

In order to understand the utilization of services across a country, residence (both urban/rural and geographic regions) is the most important background characteristic to consider. When data are reported from household surveys, disaggregation is available for residence, household wealth quintiles, and maternal characteristics, such as age and education. When data are reported from administrative sources, disaggregation is more limited and tend to include only residence and age.

Common pitfalls

Data collection and data interpretation in many countries is challenged by lack of guidelines, standardization of names and functions of the provider, and by task-shifting. In addition, many countries have found that there are large gaps between international standards and the competencies of existing birth attendants who are able to correctly manage common obstetric and neonatal complications

Furthermore, with regard to data obtained from surveys, the validity of such data depends on the correct identification by the women of the credentials of the person attending the delivery, which may not be obvious in certain countries.

The most commonly used denominator is the number of live births; notably, this excludes stillbirths.

Monitoring and reporting

National

National Statistical Offices, Ministries of Health

Global

Agencies: United Nations Children's Fund (UNICEF), World Health Organization (WHO)

Process: UNICEF and WHO maintain joint databases on skilled attendant at delivery (doctor, nurse or midwife) and both collaborate to ensure the consistency of data sources. Before acceptance into the joint global databases, UNICEF and WHO undergo a verification process that includes correspondence with field offices to clarify any questions regarding estimates. During this process, the national categories of skilled health personnel are verified, and so the estimates for some countries may include a different set of personnel categories.

Timing: The joint databases are updated annually with data submitted by country offices or made publicly available by national information systems.

Discrepancies with national estimates: As noted above, the global-level verification of estimates will include a review of the qualifications of different personnel categories in the country and this may result in the exclusion or inclusion of certain health personnel from the 'skilled' category.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF data: https://data.unicef.org/topic/maternal-health/delivery-care/

- SDG metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-03-01-02.pdf

Tools and measurement guidance:

- MICS questionnaire for individual women: http://mics.unicef.org/tools

UNICEF

GOAL 3

Ensure healthy lives and promote well-being for all at all ages

TARGET 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

Target overview

SDG monitoring

SDG Target 3.2 includes the following indicators, both of which are discussed in this briefing note::

- 3.2.1: Under-five mortality rate
- 3.2.2: Neonatal mortality rate

Broader monitoring context

There are a range of different demographic measures related to the mortality of children under age five. Examining mortality measures beyond just the neonatal and under-five mortality rates can provide more insight into vulnerable periods for children.

- *Stillbirth rate* – A foetal death or stillbirth is defined as a baby born with no signs of life at 28 weeks' gestation or more (third trimester), expressed as number of third trimester fetal deaths (≥28 weeks) per 1,000 births (live and stillbirths).

- *Neonatal mortality rate* – Probability of dying during the first 28 days of life, expressed per 1,000 live births

- *Post-neonatal mortality rate* – Probability of dying after the first 28 days and before reaching exactly 1 year of age, expressed per 1,000 children surviving the first 28 days. It is often calculated as the difference between infant and neonatal mortality in DHS and MICS survey reports.

- *Infant mortality rate* – Probability of dying between birth and exactly 1 year of age, expressed per 1,000 live births

- *Child mortality rate* – Probability of dying between the 1st and 5th birthdays, expressed as deaths per 1,000 children surviving to age one.

- *Under-five mortality rate* – Probability of dying between birth and exactly 5 years of age, expressed per 1,000 live births.

While the amount of data on neonatal and under-five mortality in low- and middle-income countries has grown in recent decades, many countries still lack accurate, reliable and timely data. Different data sources and calculation methods often yield widely differing estimates of mortality for a given time and place.

UNICEF role in monitoring

Goal 1 of UNICEF's Strategic Plan – Every Child Survives and Thrives—encompasses the mortality of children under age five. Over the years, UNICEF, the custodian agency for SDG indicators 3.2.1 and 3.2.2, has worked to advance methodologies to better estimate under-five and neonatal mortality. In 2004, UNICEF joined together with WHO, the World Bank Group, and the United Nations Population Division (UNPD) to form the Inter-agency Group for Child Mortality Estimation (UN IGME). The UN IGME aimed to share data on child mortality, harmonize estimates within the UN system, improve methods for child mortality estimation, report on progress towards child survival goals and enhance country capacity to produce timely and properly assessed estimates of child mortality. In recent years, the UN IGME's work has expanded to address sex-specific child mortality estimation, and mortality estimation among 5-14 year olds.

Given the challenges of child mortality estimation, and the fact that global monitoring and reporting has for many years relied on the UN IGME estimates, this briefing note has an expanded focus beyond the country data (from various data sources including household surveys, censuses and vital registration systems) to include the inter-agency estimates.

General information and resources

- CME Info: UN IGME's child mortality web portal: http://childmortality.org/

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the mortality focal point in the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 3.2.1
Under-five mortality rate

INDICATOR 3.2.2
Neonatal mortality rate

Description

Definition and key terms

The under-five mortality rate is 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 neonatal mortality rate is the probability that a child born in a specific year or period will die during the first 28 completed days of life, if subject to age-specific mortality rates of that period, expressed per 1000 live births.

The under-five mortality rate and the neonatal mortality rate as defined here are, strictly speaking, not rates (i.e. the number of deaths divided by the number of population at risk during a certain period of time) but a probability of dying expressed as a rate per 1000 live births.

Key terms:

- Live birth refers to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life - e.g. beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles - whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

- Under-five deaths: Under-five mortality rates and number of deaths are not interchangeable. The number of deaths does not only depend on the mortality rate of a country but also on the population size of children under age five.

- Neonatal deaths: Under-five deaths can be divided into neonatal deaths and deaths at age 1 to 59 months. Neonatal deaths (deaths during the first 28 completed days of life) may be further 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.

National data sources

Nationally representative child mortality rates can be derived from a number of different sources, including civil registration, censuses and sample surveys.

Civil registration: A civil registration system which records births and deaths on a continuous basis is the preferred source of data. If registration is complete and the system functions efficiently, the resulting estimates will be accurate and timely. A related source of mortality data is the sample vital registration system which assesses vital events at the national level from information collected in sample areas. From both of these sources, number of deaths at age 0-4 and population of the same age or live births are used to calculate death rates which are then converted into age-specific probability of dying.

Household surveys: Because many countries do not have well-functioning vital registration systems, household surveys, such as the UNICEF-supported Multiple Indicator Cluster Surveys (MICS), the USAID-supported Demographic and Health Surveys (DHS) have become the primary source of data on under-five and neonatal mortality in many low and lower middle income countries. These surveys ask women about the survival of their children, and it is these reports that provide the basis of child mortality estimates. Specifically, in most of these surveys a direct method is used based on a series of detailed questions on each child a woman has given birth to during her lifetime. Neonatal, post-neonatal, infant, child and under-five mortality trend estimates over a 25-year period before the survey can be derived from this "full birth history" module. The sample size of surveys needs to be sufficiently large to produce statistically reliable estimates of child mortality, which are relatively uncommon events. Some surveys also use an indirect method to gather information on mortality. The indirect method is based on questions to each woman of reproductive age on how many children she has ever given birth to and how many are still alive.

Censuses: Periodic population censuses can also provide data on under-five mortality. Censuses often use the indirect method and/or include questions on household deaths in the last 12 months, which can also be used to calculate mortality estimates.

Many countries lack a single source of high-quality data covering the last several decades. Data from different sources require different calculation methods and may suffer from different errors, for example random errors in sample surveys or systematic errors due to misreporting. As a result, various sources often yield widely different estimates of mortality for a given time period and available data are often inconsistent across sources.

Using the indicators

Interpretation

Mortality rates among young children are key indicators for child health and well-being, and, more broadly, for social and economic development. The under-five mortality rate, for example, a closely watched public health indicator because it reflects the access of children and communities to basic health interventions such as vaccination, medical treatment of infectious diseases, and adequate nutrition.

There are various ways to interpret under-five and neonatal mortality rates. In terms of overall levels, under-five mortality rates exceeding 40 deaths per 1,000 live births are considered to be high. Assessing the share of neonatal in under-five deaths is also a useful measure for understanding where the mortality burden lies and, together with measures of intervention coverage, can provide programmatic insight. And numbers of deaths are important both for advocacy and planning.

In order to assess progress over time, the average rate of reduction (ARR) can be calculated to quantify the rate of change from a baseline to the most recent estimate. To assess if countries are on track to achieve SDG targets, the current ARR can be compared with the ARR required to achieve the target on time. While the ARR assesses relative reductions, one can also assess the absolute reductions over a period.

Disaggregation

The common disaggregation for mortality indicators includes disaggregation by sex, age, wealth quintile, residence, and mother's education. Disaggregated data are not always available. Disaggregation by geographic location is usually at regional level, or the minimum provincial level for survey or census data. Data from well-functioning vital registration systems can provide further geographical breakdowns, but not wealth, educational level of mother, or other correlates, except in the rare cases where systems are linked. Data from surveys can also provide disaggregation by demographic risk factors such as mother's age, birth interval, birth order and size at birth. Often disaggregated data from surveys refer to a period of 10 years before the survey since the sample size does not allow for estimates over shorter periods.

Common pitfalls

Many countries do not have timely and reliable child mortality data but rather have differing mortality rates from different sources. Available data suffer from sampling and nonsampling errors. For example, misreporting of age and sex and survivor selection bias. Underreporting of child deaths is also common. Recall errors are common as data are collected retrospectively. Further misclassifications can impact on the accuracy of data, for example early neonatal deaths may be classified as stillbirths. This is why

simply comparing two country data points from different sources and drawing a line between them is not a technically sound way to assess levels and trends. Given varying levels of data quality across different sources, this sort of trend assessment will provide misleading results.

It is important to keep these challenges in mind when looking at available country data and also when discrepancies between country data and the UN IGME estimates are being discussed. The following points are important to highlight:

- The UN IGME aims to minimize the errors for each estimate, harmonize trends over time and produce up-to-date and properly assessed estimates of child mortality. Thus, UN IGME estimates are *derived* from country data. Notably, UN IGME assesses the quality of underlying data sources and adjusts data when necessary.

- National estimates may refer to an earlier calendar year than the UN IGME estimates. This is particularly the case where estimates from the most recent national survey are used, as these typically refer to a period before the year of the survey, which may be several years behind the target year for the UN IGME estimates. National estimates may also use a different combination of data sources, or different projection or calculation methods.

- In the absence of error-free data, there will always be uncertainty around data and estimates, both national and internationally. To allow for added comparability, the UN IGME generates such estimates with uncertainty bounds. When discussing the UN IGME estimates, it's important to look at the uncertainty ranges, which might be fairly wide in the case of some countries.

Monitoring and reporting

National

National Statistical Offices, Ministries of Health

Global

Agencies: UNICEF

Note that UNICEF works together with the UN Inter-agency Group for Child Mortality Estimation (UN IGME), which is led by UNICEF, and also includes WHO, the World Bank Group and the United Nations Population Division. UN IGME's independent Technical Advisory Group (TAG), comprising leading academic scholars and independent experts in demography and biostatistics, provides guidance on estimation methods, technical issues and strategies for data analysis and data quality assessment.

Process: UN IGME follows the following broad strategy to arrive at annual estimates of child mortality:

1. Compile and assess the quality of all available nationally representative data relevant to the estimation of child mortality, including data from vital registration systems, population censuses, household surveys and sample registration systems.

2. Assess data quality, recalculate data inputs and make adjustments, if needed, by applying standard methods.

3. Fit a statistical model to these data to generate a smooth trend curve that averages over possibly disparate estimates from the different data sources for a country.

4. Extrapolate the model to a target year.

Then the UN IGME conducts a country consultation with government counterparts for feedback on the UN IGME estimates and the country data. Governments review the UN IGME estimates and country data and send feedback or comments and additional country data if these data are not included in the UN IGME database.

Timing: Updated databases with underlying data are released on annual basis together with new round of UN IGME estimates.

Discrepancies with national estimates: The UN IGME's estimation method fits a smoothed trend curve to a set of observations from the country and then carries forward that trend to a recent reference year common for all countries (see sample country figure presented in Data Sources section above). Applying a consistent methodology allows for comparisons both over time and between countries, despite the varied number and types of data sources.

Countries, however, often use one single source as their official estimates or apply methods different from the UN IGME methods to derive estimates. Also the latest data produced by countries often are not current estimates but refer to an earlier reference period, whereas the UN IGME projects estimates to a common reference year.

The differences between the UN IGME estimates and national official estimates are usually not large if country data has good quality. In the case of countries with sparse and/or inconsistent data, however, differences can be substantial.

The best way to understand discrepancies between the national level data and the UN IGME estimates is to look at the country data pages on CME Info.

Key resources

Indicator information and cross-country comparable estimates:

- CME Info: http://www.childmortality.org/

- UNICEF Data: https://data.unicef.org/topic/child-survival/under-five-mortality/

- UNICEF Data: https://data.unicef.org/topic/child-survival/neonatal-mortality/

- SDG metadata: https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- MICS: http://mics.unicef.org/tools

- DHS: https://dhsprogram.com/What-We-Do/Survey-Types/DHS-Questionnaires.cfm

- IUSSP Tools for Demographic Estimation—Child mortality estimation: http://demographicestimation.iussp.org/content/child-mortality

Estimation models:

- Levels & Trends in Child Mortality: Report 2017, Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation', United Nations Children's Fund, New York, 2017: http://childmortality.org/files_v21/download/IGME%20report%202017%20child%20mortality%20final.pdf

- Global Estimation of Child Mortality using a Bayesian B-Spline Bias-Reduction Method: http://arxiv.org/abs/1309.1602

- Global Estimation of Neonatal Mortality Using a Bayesian Hierarchical Splines Regression Model: https://www.demographic-research.org/volumes/vol38/15/

- National, regional, and global sex ratios of infant, child, and under-5 mortality and identification of countries with outlying ratios: a systematic assessment: http://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2814%2970280-3/abstract

Other:

- PLoS Medicine Collection: Child Mortality Estimation Methods: http://www.ploscollections.org/childmortalityestimation

- Global, regional, and national levels and trends in under-5 mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Inter-agency Group for Child Mortality Estimation: http://thelancet.com/journals/lancet/article/PIIS0140-6736(15)00120-8/abstract

- National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis: http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(15)00275-2/fulltext

GOAL 3

Ensure healthy lives and promote well-being for all at all ages

TARGET 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

TARGET 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.

Target overview

SDG monitoring
SDG target 3.8 includes the following indicators:

- 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

SDG target 3.b includes the following indicators:

- 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

This briefing note focuses on indicators 3.8.1 and 3.b.1.

Broader monitoring context
The concept of universal health coverage means that all people receive the health services they need, and that those services are high quality, while at the same time ensuring that the use of these services does not expose the user to financial hardship. One critical building block to universal health coverage and ending preventable child deaths (Target 3.2) is vaccinations.

Universal health coverage, as an articulated and quantifiable public health target, is newly developed concept and work on its measurement is still ongoing. While the two global SDG indicators are universally important, they are a subset of the indicators needed to monitor progress towards Target 3.8, which draws on a wider range of established indicators, often tailored to specific regions and countries. "Full vaccination coverage" as defined in indicator 3.b.1 is also challenging to monitor given the variation in vaccination schedules both over time and across countries. Therefore, this indicator may also need to evolve over time to better reflect access to all WHO recommended vaccines and potential future changes in the recommendations, as new vaccines continue to become available.

UNICEF role in monitoring

SDG Targets 3.8 and 3.b correspond to UNICEF's Strategic Plan Goal Area 1 (Every Child Survives and Thrives. Over the past two decades, UNICEF has supported countries in monitoring indicators related to the health of children and mothers and UNICEF is playing an active monitoring role across SDG 3. While WHO is the designated custodian agency for both SDG 3.8 indicators, UNICEF is a partner agency with UNFPA and UN DESA (Population Division) for 3.8.1 and the World Bank partners on 3.8.2. UNICEF is a co-custodian agency, together with WHO on Indicator 3.b.1. In addition to these global SDG indicators, UNICEF will continue to highlight a broader range of indicators that highlight specific coverage interventions for reproductive, maternal, newborn, child, and adolescent health.

General information and resources

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the health focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 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)

Description

Definition and key terms

The coverage of essential health services is defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access, among the general and the most disadvantaged population).

A new measure—universal health coverage index (UHC index)—has been developed to track this indicator. This is a newly developed indicator and the methodology may continue to evolve. Specifically, the UHC service coverage index is a composite indicator that is computed based on tracer indicators (some of which are proxies of service coverage) to monitor coverage of essential health services. Essential health services are services that all countries, regardless of their demographic, epidemiological or economic profile, are expected to provide.

The service coverage index is constructed[1] from subindices representing the four categories specified in the definition of indicator 3.8.1. Each subindex includes four tracer indicators.

REPRODUCTIVE, MATERNAL, NEWBORN AND CHILD HEALTH	1. **Family planning**	Demand satisfied with modern method among women 15–49 years who are married or in a union (%)
	2. **Pregnancy and delivery care**	Antenatal care 4+ visits (%)[2]
	3. **Child immunization**	One-year- old children who have received 3 doses of diphtheria- tetanus- pertussis vaccine (DTP3) (%)
	4. **Child treatment**	Care-seeking behaviour for children with suspected pneumonia (%)
INFECTIOUS DISEASES	1. **Tuberculosis treatment**	TB effective treatment coverage (%)
	2. **HIV treatment**	People living with HIV receiving ART (%)
	3. **Malaria prevention**	Population at risk sleeping under insecticide treated bednets (%
	4. **Water and sanitation**	Households with access to at least basic sanitation (%)
NON-COMMUNICABLE DISEASES	1. **Prevention of cardiovascular disease**	Prevalence of normal blood pressure, regardless of treatment status (%)
	2. **Management of diabetes**	Mean fasting plasma glucose (FPG), (mmol/L)
	3. **Cancer detection and treatment**	Cervical cancer screening among women aged 30–49 years (%)
	4. **Tobacco control**	Adults aged ≥15 years not smoking tobacco in last 30 days (%)
SERVICE CAPACITY AND ACCESS	1. **Hospital access**	Hospital beds per capita (w/ threshold)
	2. **Health worker density**	Health professionals per capita (w/ threshold): physicians, psychiatrists and surgeons
	3. **Access to essential medicines**	Proportion of health facilities with WHO recommended core list of essential medicines available
	4. **Health security**	International Health Regulations core capacity index

1 For more information on the calculation of the index, please refer to Tracking Universal Health Coverage: 2017 Global Monitoring Report, page 10.
2 Number of ANC visits captures contact with the health system but does not capture quality of care received and may not lead to improved mortality outcomes. This is an example of an indicator that may be replaced in the future, as UNICEF/WHO with SDG 3.1.2 (births attended by skilled health personnel) as UNICEF/WHO efforts to improve comparability are successful.

Key terms:

- Tracer indicators are a subset of indicators chosen to represent overall coverage.

- Proxy indicators are used to reflect important areas of service coverage for which no robust indicator are available.

National data sources

Common primary data sources used for indicators of service coverage include household surveys, facility data and other administrative data.

Nationally representative, population-based surveys are often the best source as they can enable the measurement of those who need an intervention, in addition to counting those who already receive it, and allow for the disaggregation of service coverage by different subpopulations for equity analysis. MICS and DHS are particularly important sources of data for all of the RMNCH indicators included in the UHC index as well as ITNs and basic sanitation.

The use of facility data or other administrative sources presents challenges as they may capture the number of people receiving a service (the numerator) but fail to count all those who need a service (the denominator), and typically do not collect variables relevant for equity analyses other than geographical location. They may also be subject to reporting incentives. However, an advantage of administrative data sources is that they are often reported at least annually through routine systems, and therefore provide more timely data than household surveys, which are typically conducted every three to five years.

Using the indicators

Interpretation

The UHC coverage index has recently been constructed to provide some insight into a population's access to and use of health services, and should be interpreted together with indicator 8.3.2, which provides insight into the aspect of financial hardship. It is thus a useful summary measure that provides an overall indication of coverage of health services. It does not, however, fully depict health services provided to children and mothers and should not be interpreted as a comprehensive summary measure when talking about RMNCAH issues.

When considering the UHC coverage index, it is important to keep in mind the following specific points:

- These tracer indicators are not a recommended basket of services; rather they are chosen to capture the breadth of health services within UHC in a measurable way and selection criteria largely depended on data availability.

- There is a potential risk that the index obscures lack of progress for specific child and maternal health interventions because of the averaging effect across indicators.

- Although quality of care is implicit in the concept of universal health coverage, it is not captured in the UHC coverage index.

- Proxy measures like hospital bed density, physician density, as well as alternatives like service utilization rates, are difficult to interpret as the optimal level for these indicators is unclear and they do not relate to a specific need for services. Despite this, low levels for these indicators are indicative of poor access and use of essential health services. Thus, this indicator should not be interpreted as representing actual population coverage of essential health services, which is challenging to measure.

Given the current measurement of UHC, it is important to interpret indicator values within a broader range of available data. This is particularly true if there is interest in understanding particular sets of health services such as those provided to mothers, newborns and children.

Disaggregation

This indicator can only be disaggregated by the four categories of service coverage. Thus, it is necessary to illustrate inequalities using a subset of indicators, particularly for the RMNCH indicators measured through household surveys.

This point reinforces the importance of looking across a broader range of indicators, which can be disaggregated by key stratifiers, which include place of residence, geographic location, household wealth, and education.

Common pitfalls

In addition to the points raised in the interpretation section above, there are a number of key challenges posed by this indicator.

One implication of having an indicator with an evolving methodology is that it will be difficult to track trends for some time. Although this builds on a previous methodology introduced in 2015, this is the current approach to measuring UHC coverage, presented by WHO and the World Bank in 2017,and cannot be compared to the previous estimates. Furthermore, some of the indicators currently included in the index may be subject to change. Data availability was a major consideration in developing the final list of indicators, with the expectation that substitutions will be made as new data become available.

The fact that the index is constructed using data from different sources, with data collected at different times, could mean that it will be difficult to monitor frequently. It is anticipated that a minimum period of five years is likely to be needed to reliably measure national changes in the index.

Monitoring and reporting

National

Ministries of health

Global

Agencies: WHO

Note that WHO is the designated custodian agency for both SDG 3.8 indicators, with UNICEF, UNFPA and UN DESA (Population Division) as partner agencies for 3.8.1 and the World Bank for 3.8.2.

Process: Various agencies provide data to WHO for the calculation of this indicator. UNICEF provides data for three of the 16 indicators: Care-seeking behaviour for children with suspected pneumonia (%), for which it maintains a global database, as well as DPT3 and basic sanitation, estimates that are jointly produced with WHO. Because reporting on this indicator is evolving, it is possible that the process will be modified in the future.

Timing: The current plan is to produce a new round of country, regional and global estimates every two years.

Discrepancies with national estimates: This is a newly developed indicator and the methodology may continue to evolve. As estimates have only been generated at the global level to date, the extent to which global and national level estimates may vary remains to be seen. However, given the range of tracer indicators used to construct the index – many of which are modeled at the global level – discrepancies between global and national level estimates should be anticipated. As monitoring on this indicator evolves, further information will be provided to countries.

Key resources

Indicator information and cross-country comparable estimates:

- UHC: http://apps.who.int/gho/cabinet/uhc.jsp
- UNICEF work on MNCH sectors: https://data.unicef.org/

Tools and measurement guidance:

- MICS surveys: http://mics.unicef.org/tools

Methodological information:

- Monitoring universal health coverage within the Sustainable Development Goals: development and baseline data for an index of essential health services. Lancet 2017: http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(17)30472-2/fulltext
- Tracking Universal Health Coverage: 2017 Global Monitoring Report: http://www.who.int/healthinfo/universal_health_coverage/report/2017/en/

INDICATOR 3.B.1

Proportion of the target population covered by all vaccines included in their national programme

Description

Definition and key terms

Although the indicator has been formulated as "Proportion of the target population covered by all vaccines included in their national [immunization] programme", in most countries it is not possible to measure the proportion of fully immunized children (see key challenges section below) from the current administrative data systems and composite indicators would be difficult to track over time due to lack of comparability across countries and time in national immunization schedules. On the other hand, coverage with a single vaccine will not reflect the complexity of the immunization schedule over the life cycle, nor reflect the progress in the introduction of new vaccines.

Thus, SDG indicator 3.b.1 is currently defined as a series of four immunization coverage indicators:

- **Coverage of diphtheria and tetanus toxoid with pertussis containing vaccine (third dose)**: Percentage of surviving infants who received the 3 doses of diphtheria and tetanus toxoid with pertussis (DTP) containing vaccine in a given year.

- **Coverage of measles containing vaccine (second dose)**: Percentage of children who received two doses of measles containing vaccine (MCV) according to nationally recommended schedule through routine immunization services.

- **Coverage of pneumococcal conjugate vaccine (last dose in the schedule)**: Percentage of surviving infants who received the recommended doses of pneumococcal conjugate vaccine (PCV).

- **Coverage of human papillomavirus vaccine (last dose in the schedule)**: Percentage of 15 years old girls who received the recommended doses of human papillomavirus (HPV) vaccine.

For each vaccine, the coverage is defined as follows.

Numerator: Total number of children in the target population who received the given vaccine

Denominator: Number of children in the target population. The target population for DTP and PCV are children under one year of age. MCV2 is often given in the second year of life while some countries recommended before school. HPV's target population is 15 years old girls.

Key terms:

- Immunization coverage levels are presented as the percentage of a target population that has been vaccinated. Coverage is usually calculated for each vaccine and for the number of doses received. The target population varies depending on national policies, the specific vaccine and the dose for which coverage is being calculated.

- The target population for a given vaccine is defined based on WHO recommended age for administration.

- National immunization schedules are developed by countries based on local disease epidemiology and national health priorities. The schedules are adapted from recommendations from WHO, which provides global vaccine and immunization recommendations for diseases that have an international public health impact in accordance with its mandate to provide guidance to Member States on health policy matters.

National data sources

Estimates of immunization coverage are generally based on two sources of data: reports of vaccinations performed by service providers (administrative data) and household surveys collecting vaccination information from children's vaccination card or mother recall (survey data).

Administrative data are the preferred source of data on immunization coverage, although data quality varies greatly from country to country. One disadvantage of the current administrative data systems in most countries is the fact that vaccination status is not reported at the individual child level (only aggregates by vaccine-dose are reported). Which makes it impossible to derive a full vaccination coverage (proportion of the population covered with all the vaccines in the national schedule).

The principal sources of immunization survey data are the Expanded Programme on Immunization (EPI) cluster survey, MICS and DHS. Immunization survey data are mainly used for disparities analysis but also as an independent assessment tool for the immunization programme performance.

As described below, UNICEF and WHO use both administrative and survey data to produce annual estimates of immunization coverage for most of the WHO recommended vaccines.

Data collection innovation

Increasingly, more survey programs such as the EPI cluster survey are developing tools and methods to complement household collected data with facility-based data. This facility-based information will also provide a different perspective on the immunization data and will help reduce the impact of recall of vaccination information by caregiver which is a source of data quality issues.

Using the indicator

Interpretation

This indicator aims to measure access to vaccines, including the recently available vaccines, at the national level. National immunization schedules including the recommended vaccines and number of doses vary between countries, with only DTP, polio and measles containing vaccines being used in all countries. In the past, coverage with three doses of DTP or DTP3-containing vaccine was used as a proxy for fully immunized child because to complete the primary series from DTP-containing vaccine requires 3 contacts with the health system. At that time, vaccination schedules had many fewer vaccines and DTP3 was among the last dose received by the children in most countries.

With the increased number of new vaccines in immunization schedules and the extension of immunization beyond first year of life, a more multidimensional measure is needed. The series indicators proposed for tracking Indicator 3.b.1 provide insight into a number of aspects of the functioning of the national immunization programme:

- Coverage of DTP-containing vaccine (third dose): overall system strength to deliver infant vaccinations.

- Coverage of measles-containing vaccine (second dose): ability to deliver vaccines beyond the first year of life through routine immunization services.

- Coverage of pneumococcal conjugate vaccine (last dose): the adaptation of the system to include delivery of new vaccines for children

- Coverage of HPV vaccine among girls (last dose): vaccination over the life cycle

While these indicators provide insight into various aspects of the national immunization programme, for monitoring disease control and impact of vaccines, it is important to measure coverage from each vaccine in national immunization schedule.

Disaggregation

Geography is a key stratifier for understanding how the national immunization programme is functioning in different parts of the country. Since last year, UNICEF and WHO have started systematically collecting administrative coverage data for DTP1, DTP3, and MCV1 at the district level or equivalent (usually 2nd administrative level). The current available district-level administrative data has many quality issues, however its use will help improve its quality and relevance. Notably, the global level estimates produced by WHO and UNICEF (described below) are for the national level and are not disaggregated.

Household surveys also provide subnational estimates of immunization coverage, as well as other key stratifiers including place of residence, household wealth, and characteristics of the mother, such as education.

Common pitfalls

Robust measurement of vaccination coverage is challenging in many countries. When reviewing national data, it is important to keep in mind the following points:

- To derive a valid coverage estimate from administrative data, an accurate denominator is essential. This is a challenge in many countries lacking a fully functioning CRVS system. The accuracy of the denominator becomes even more challenging for some special populations e.g. urban slams, remote community, mobile populations and conflict affected areas.

- While survey data can address the denominator issue and provide a full immunization status for children, they usually cannot produce reliable estimates for smaller geographic regions due to limited sample sizes. And, in some countries, the low vaccination card retention can introduce bias to the survey estimates of immunization coverage.

- Changes in the vaccination schedule and the differences in the national schedules make comparison over time and across countries difficult.

- There are special situations affecting the immunization program which have consequences on the vaccination coverage but can be sometimes difficult to fully measure e.g. shortage of vaccines (stock out), private sector vaccination activities, conflicts and emergencies.

Monitoring and reporting

National

Ministries of Health, national immunization programmes

Global

Agencies: WHO and UNICEF

WHO/UNICEF estimates of national immunization coverage are commonly referred to by their acronym WUENIC.

Process: Annually, UNICEF and WHO jointly collect data on immunization using a standardized data collection form, the WHO/UNICEF Joint Reporting Form on Immunization (JRF), which is sent to countries annually. The JRF questionnaire is reviewed and revised every two years and revisions are often discussed with national immunization program managers during regional immunization program managers meetings. WHO and UNICEF jointly conduct an annual country consultation of WUENIC estimates. The estimates of national immunization coverage are sent to all 195 WHO and UNICEF member states for review, specifically requesting input data validation and any additional contextual information. All input data and additional information are systematically stored in a well-documented database and made available on the web.[1]

Timing: WUENIC data collection occurs February-April annually, with country consultations in May-June. New estimates are released every July.

Discrepancies with national estimates: Countries often rely on administrative coverage data, while WHO and UNICEF review and assess data from different sources including administrative systems and surveys. Differences between country produced and international estimates are mainly due to differences between coverage estimates from administrative system and survey results.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/child-health/immunization/
- WHO immunization: http://www.who.int/immunization/monitoring_surveillance/routine/coverage/en/index4.html

Tools and measurement guidance:

- MICS: http://mics.unicef.org/tools
- DHS: https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm
- EPI cluster survey: http://who.int/immunization/monitoring_surveillance/routine/coverage/en/index2.html
- Joint reporting form (JRF): http://who.int/immunization/monitoring_surveillance/routine/reporting/en/

Methodological information:

- WHO and UNICEF estimates of national infant immunization coverage: methods and processes. Bull World Health Organ. 2009;87(7):535-41.
- A Formal Representation of the WHO and UNICEF Estimates of National Immunization Coverage: A Computational Logic Approach. PLoS ONE 2012;7(10): e47806. doi:10.1371/journal.pone.0047806
- An Introduction to the Grade of Confidence in the WHO and UNICEF Estimates of National Immunization Coverage
- The Open Public Health Journal, 2013, 6, 73-76

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1 http://who.int/immunization/monitoring_surveillance/data/en/ and https://data.unicef.org/topic/child-health/immunization/.

UNICEF

GOAL 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

TARGET 4.1

By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

Target overview

SDG monitoring

SDG Target 4.1 is tracked by a single indicator, comprised of six sub-sets of the data:

- 4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

Broader monitoring context

Goal 4 is comprised of seven targets and three means of implementation, all of which are closely linked. So in order to ensure that the learning target is achieved, gender and other disparities must be eliminated (Target 4.5) and education facilities must provide an inclusive and effective learning environment for all (Target 4.a). Furthermore, learning rests on a foundation of quality early childhood development (Target 4.2). And within the larger context of the SDGs it is essential that all learners acquire the knowledge and skills needed to promote sustainable development (Target 4.7). Thus, the single indicator under Target 4.1 needs to be considered within a broader context of SDG indicators. Beyond the SDGs, there are a range of indicators that may be produced by countries to help support advocacy and programming. These include UNICEF SP, SDG Thematic and MICS indicators.[1]

1 Examples of overlapping SP, SDG4 and MICS indicators: Completion rate (SDG4.1.4 and MICS indicators), Gross-Intake Rate to the Last grade in primary and lower secondary education (SDG4.1.3, SP impact, and MICS indicators), and Out-of-School Children rates for primary, lower secondary and upper secondary (SDG4.1.5, SP outcome, and MICS indicators).

Many countries currently lack consistent comprehensive data to support advocacy and programming, and efforts to monitoring progress are essential. Data that capture the educational situation of the most disadvantaged and vulnerable populations are particularly difficult to come by in most countries. In some cases, lack of robust data is at least partially due to the lack of an established measurement methodology. Efforts are underway to fill these gaps, for example through new data collection in MICS 6 (see below), which for many years has been a key source of comparable, disaggregatable data on numerous aspects of educational attainment

UNICEF role in monitoring

While UNESCO Institute for Statistics is the custodian agency of most of the SDG4 indicators, UNICEF plays an active role in SDG4 monitoring. At country level, UNICEF works together UIS/UNESCO to support ministries of education in their reporting. UNICEF support for MICS surveys also helps countries to collect essential data. UNICEF is also an active member of the Global Alliance to Monitor Learning (GAML) to discuss technical issues in measuring learning outcomes among others. Notably, UNICEF Strategic Plan Goal Area 2 (Every child learns) is fully aligned to SDG4 and other education-related targets.

General information and resources

- UNICEF data: https://data.unicef.org/
- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org
- SDG indicators: https://unstats.un.org/sdgs/
- Education Sector Analysis Methodological Guidelines Volume 1 and Volume 2: https://www.globalpartnership.org/content/methodological-guidelines-education-sector-analysis-volume-1
- The Sustainable Development Goals Explained: Quality Education, by Jo Bourne, Associate Director of Education, UNICEF (Video, 3:01)
- SDG4 Brief for UNICEF Education Staff, May 2017

For further information, please contact the education focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 4.1.1

Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

Description

Definition and key terms

The indicator is calculated as the percentage of children and/or young people at the relevant stage of education achieving or exceeding a pre-defined proficiency level in a given subject. Thus, estimates should be presented for each of the six subcomponents of the indicator, as follows:

- Achieving at least a minimum proficiency level in reading in Grade 2 or 3

- Achieving at least a minimum proficiency level in mathematics in Grade 2 or 3

- Achieving at least a minimum proficiency level in reading at the end of primary education

- Achieving at least a minimum proficiency level in mathematics at the end of primary education

- Achieving at least a minimum proficiency level in reading at the end of lower secondary education

- Achieving at least a minimum proficiency level in mathematics at the end of lower secondary education

Key terms:

- Minimum proficiency level is the benchmark of basic knowledge in a domain (mathematics or reading) measured through learning assessments. Currently, there are no common standards validated by the international community or countries.

National data sources

There is no standardized measurement tool at present, and to date available data have been derived from various cross-national learning assessments including:

- Programme d'analyse des systèmes éducatifs de la CONFEMEN (PASEC): http://www.pasec.confemen.org/

- Progress in International Reading Literacy Study (PIRLS): https://timssandpirls.bc.edu/

- Programme for International Student Assessment (PISA): https://www.oecd.org/pisa/aboutpisa/

- Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ): http://www.sacmeq.org/?q=sacmeq-projects/sacmeq-iv

- Tercer Estudio Regional Comparativo y Explicativo (TERCE): http://www.unesco.org/new/en/santiago/education/education-assessment-llece/terce/

- Trends in International Mathematics and Science Study (TIMSS): http://www.iea.nl/timss-2015

Notably, performance levels on the various assessments may not be directly comparable.

The MICS programme has developed a new module (the Foundational Learning Module) now part of MICS 6, to capture the basic literacy and numeracy skills of children in order to provide data that are comparable across countries. The new learning module will be administered to children aged 7–14 years, including out-of-school children, and will assess reading and math skills of grade 2 in primary education.

Data collection innovation

In addition to the new MICS Foundational Learning Module, there is a new MICS 6 module on child functioning (disability), which allows for the identification of out of school children with disabilities. This will permit the calculation of certain elements of the parity indices in indicator 4.5.1.

Using the indicator

Interpretation

This indicator is a direct measure of the learning outcomes achieved in reading and mathematics at the end of the relevant stages of education. Each stage of education must have its own established minimum standard; from a measurement perspective, these minimum standards are currently set by the particular data collection instrument being used and thus are not necessarily comparable across data sources. With the FL module in MICS6; countries can report percentages of children between age 7 and 14 who correctly answered five math and five literacy questions, respectively.

When using these data, it is important to note that assessments have typically been administered within school systems. This means the current indicators cover only those in school and the proportion of in-school target populations might vary from country to country due to varied out-of-school children populations.

Disaggregation

Key disaggregators include age (or age-group of students), sex, location (urban-rural), and sub-national geographical unit (provinces, states, etc). When household survey datasets are used, data may also be disaggregated by socio-economic status, language, ethnicity, and disability status among others. SDG4 emphasis on disaggregation based on the principle of "Leave no one behind", and indicator 4.5 is essentially disaggregation of SDG and other important education indicators.

Common pitfalls

Available data are sparse and inconsistent across countries. The majority of SDG 4 indicators are not available in UNICEF programme countries, making identification of data gaps and development of data generation strategy a high priority for UNICEF COs.

Monitoring and reporting

National

Ministries of Education, National Statistical Offices

Global

UNESCO Institute for Statistics (UNESCO-UIS) is the custodian agency for indicator 4.1.1

The co-convening agencies for overall monitoring of SDG4 include UNESCO, UNICEF, the World Bank, UNFPA, UNDP, UN Women and UNHCR. UNICEF also participates on the Technical Cooperation Group to provide technical guidance for monitoring SDG4 indicators, together with 26 Member states and UNESCO, UIS, GPE, World Bank, OECD, CONFEMEN and various NGOs. UNICEF is also an active member of the Global Alliance to Monitor Learning (GAML) to discuss technical issues in measuring learning outcomes among others.

Process: Discussions are ongoing among co-convening agencies and member states on global monitoring and reporting processes for SDG4. For the latest information, please contact the education focal point in the Data & Analytics section via: data@unicef.org.

Timing: See above.

Discrepancies with national estimates: See above.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/education/overview/

- SDG4 Portal Site: http://uis.unesco.org/

- SDG metadata: https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- MICS Methodological Work in Assessment of Learning Outcomes: http://mics.unicef.org/methodological_work/2/ASSESSMENT-OF-LEARNING-OUTCOMES

- MICS questionnaire for Children Age 5-17 – includes module on foundational learning skills: http://mics.unicef.org/tools

GOAL 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

TARGET 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

Target overview

SDG monitoring

SDG Target 4.2 is tracked by the following indicators:

- 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

- 4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex[1]

This briefing note will focus on Indicator 4.2.1 for which UNICEF is the custodian agency.

Broader monitoring context

Early childhood development (ECD) is multidimensional and refers to several aspects of a child's well-being: physical, social, emotional and cognitive. While data and global monitoring efforts have existed for some time for certain domains of child development, there remains a critical lack of comparable evidence on children's overall developmental status.

UNICEF has been on the forefront of advancing ECD monitoring, leading development of the Early Childhood Development Index (ECDI) to measure four domains – literacy-numeracy, physical, social-emotional and learning – and to monitor children's achievement of universal developmental milestones across countries. With the inclusion of the ECDI for the first time in 2009, MICS has become an important source of data not only on factors that contribute to ECD, such as care and education, but also on actual developmental outcomes among children during the early years. MICS is now the largest source of comparable data on children's developmental status across a variety of low- and middle-income countries.

To better align with the definition set forth by SDG 4.2.1, however, there is a need to build on the ECDI approach and develop a new measure of early childhood development. There are several key reasons for development of a new measure of ECD within the context of SDG monitoring and reporting. Currently, the main differences between the existing ECDI and the formulation of SDG 4.2.1 pertain to the inclusion of the health domain and the broader age group of children under age five in the SDG formulation. In addition, the principle of universality within the SDG agenda and the need to ensure that tools are relevant and applicable for all countries should also be taken into account.

1 UNESCO-UIS is custodian for 4.2.2. For more information, please refer to the SDG metadata.

UNICEF role in monitoring

SDG target 4.2 corresponds to UNICEF's Strategic Plan Goal Area 1 (Every Child Survives and Thrives) and Goal Area 2 (Every Child Learns). As custodian agency for global reporting on this indicator, UNICEF has outlined a detailed programme of methodological work and has established a global inter-agency expert group (IAEG-ECD) whose overarching purpose is to provide inputs to the revision, testing and validation of the new ECD measure. IAEG-ECD membership includes National Statistical Offices, other UN agencies and relevant INGOs, and is advised by an Expert Advisory Panel consisting of academic and technical experts.

Other partners are engaged in ongoing methodological work to develop a set of items to measure development among children aged 0 to 35 months. This work is being led by WHO in collaboration with Harvard University and the D-score group. UNICEF has been following this work closely and the two groups have kept each other informed on progress with the idea of eventually bringing the two initiatives together to explore integration of items for children aged 0 to 23 months in the new measure being developed by UNICEF.

Monitoring children's readiness for primary education requires not just an understanding of how many children are developmentally on track, but also how many children are exposed to quality organized learning activities in the year prior to the start of primary school. This dimension is captured in Indicator 4.2.2 and data are widely available from a range of countries.

General information and resources

- UNICEF data: https://data.unicef.org/
- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org
- SDG indicators: https://unstats.un.org/sdgs/
- Global Alliance to Monitor Learning (GAML): http://uis.openplus.ca/gaml/

For further information, please contact the Child Protection and Development focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 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

Description

Definition and key terms

The proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being is currently being defined as children aged 36-59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, social-emotional and learning. This proxy indictor, for which comparable data are available, is being used while the SDG indicator's definitions for other domains are being operationalized.[2]

SDG indicator:

Numerator: Number of children under the age of five who are developmentally on track in health, learning, and psychosocial well-being

Denominator: Total number of children under the age of five in the population

Proxy indicator:

Numerator: Number of children aged 36-59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, social-emotional and learning

Denominator: Total number of children aged 36-59 months in the population

Key terms:

The domains included in the indicator currently being used as a proxy for reporting on SDG indicator 4.2.1 are operationally defined as follows:

- **Literacy-numeracy**: Children are identified as being developmentally on track if they can do at least two of the following: identify/name at least 10 letters of the alphabet; read at least 4 simple, popular words; and/or know the name and recognize the symbols of all numbers from 1 to 10.

- **Physical**: If the child can pick up a small object with two fingers, like a stick or rock from the ground, and/or the mother/primary caregiver does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.

- **Social-emotional**: The child is considered developmentally on track if two of the following are true: The child gets along well with other children; the child does not kick, bite or hit other children; and the child does not get distracted easily.

- **Learning**: If the child follows simple directions on how to do something correctly and/or when given something to do, and is able to do it independently, then the child is considered to be developmentally on track in the learning domain.

National data sources

Household surveys such as UNICEF-supported MICS have been collecting data on early childhood development (through the Early Childhood Development Index or ECDI) in low- and middle-income countries since around 2009. Many of the individual items included in the ECDI are collected through household surveys and administrative sources in high-income (OECD) countries as well.

A new measure of ECD is currently under development –see below.

Data collection innovation

As noted above, UNICEF, in collaboration with academic and technical experts and key partners, is currently undertaking methodological work towards the development of a new measure of ECD. The methodological plan includes several steps: (1) review and map existing measures and items on ECD derived from both caregiver report and direct assessment; (2) technical consultations with experts in the field of ECD measurement and tool development; (3) cognitive testing of a bank of items across a variety of country contexts to gain understanding on how items are performing in terms of respondent interpretation and comprehension; (4) development of a series of background papers on the available literature and evidence pertaining to young children's development in health, learning and psychosocial well-being; (5) dedicated field test of the new ECD measure; (6) development of a manual for field implementation; (7) field testing of the new ECD measure in a MICS survey; (8) dissemination and capacity-building for countries to implement and use the new ECD measure.

The new measure of ECD will be made publicly available for use and inclusion by all countries in national household surveys.

2 Methodological work is ongoing to define commonly agreed items and methods for more comprehensively assessing each of the domains of early childhood development referenced in SDG indicator 4.2.1 i.e. health, learning and psychosocial well-being.

Using the indicator

Interpretation

Early childhood development (ECD) is a maturational and interactive process involving an ordered progression of motor, cognitive, language, socio-emotional and regulatory skills and capacities across the first few years of life. While the overall developmental process is similar across cultures, children develop at different speeds and may reach developmental milestones at different times. What is considered 'normal' child development also varies across cultures and environments, since expectations and parenting strategies may differ not only among countries but also among cultural, ethnic or religious groups within the same country.

SDG indicator 4.2.1 is intended to capture the multidimensional and holistic nature of early childhood development. For this reason, the indicator is not intended to be disaggregated by domains since development in all areas (health, learning and psychosocial well-being) are interconnected and overlapping, particularly among young children. The indicator is intended to produce a single summary score to indicate the proportion of children considered to be developmentally on track.

For all countries, the recommended target is to ensure that all boys and girls (i.e., 100%) have access to quality ECD.

Disaggregation

As a minimum, data should routinely be disaggregated by age and sex, which are key stratifiers for this indicator. Additionally, survey data often allow for disaggregation by other standard sociodemographic factors and outcome indicators such as household wealth, place of residence, geographic location, and attendance to early childhood education. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by mother's level of education, ethnicity, religion, and child functional difficulty.

Common pitfalls

For the time being, a proxy indicator (children aged 36-59 months who are developmentally on-track in at least three of the following four domains: literacy-numeracy, physical, social-emotional and learning) is being used to report on 4.2.1 until the new measure has been finalized. The proxy indicator is not fully aligned with the definition and age group covered by the SDG indicator formulation.

Monitoring and reporting

National

National Statistical Offices (in most cases)

Global

Agencies: UNICEF

Process: UNICEF maintains the global database on ECD that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data are released annually on UNICEF's dedicated website for statistics (data.unicef.org). The Secretary-General's report on the SDGs includes latest available country, regional and global estimates on 4.2.1 and is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data and are not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/early-childhood-development/overview/

- SDG metadata: https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- MICS module: https://data.unicef.org/wp-content/uploads/2017/12/MICS6-ECD-module.pdf

Methodological information:

- Development of the early childhood development index in MICS surveys (MICS Methodological Papers, Paper no. 6: https://tinyurl.com/y8t82jyk)

- Work plan for Tier III SDG global indicators: https://unstats.un.org/sdgs/tierIII-indicators/files/Tier3-04-02-01.pdf

UNICEF

GOAL 5

Achieve gender equality and empower all women and girls

TARGET 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

Target overview

SDG monitoring

SDG Target 5.2 is tracked by the following indicators:

- 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 [1]

This briefing note will focus on the first indicator.

Broader monitoring context

Although violence against women has been widely researched over the years, particularly in many high-income countries, the lack of comparable data is a serious obstacle to robust monitoring. Many data collection efforts have relied on different study methodologies and used different definitions and diverse age groups, and limited data have been collected on forms such as sexual harassment or unwanted sexual touching.

Collecting reliable data on violence against girls and women is a complex and sensitive undertaking. One key consideration is girls' and women's willingness to disclose that they have been victims of violence and the need to maintain confidentiality, which involves taking careful steps to ensure that data collection is undertaken in a way that safeguards the privacy of respondents and ensures their safety.

In addition to Target 5.2, which focuses on violence against women and girls, there are related indicators included in other SDG targets, including indicator 11.7.2 Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months; indicator 16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months; and indicator 16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18 (see Briefing Note 14).

UNICEF role in monitoring

In UNICEF's Strategic Plan 2018-2021, children's protection from violence and exploitation is the dedicated focus of Goal Area 3. While this is not specific to addressing violence against women and girls, there is some overlap since adolescent girls can still be considered children in the strict sense of the word. In addition, the new UNICEF Gender Action Plan 2018-2021 includes addressing gender-based violence, particularly within the context of emergencies, as one of its five targeted priorities.

UNICEF is one of five co-custodian agencies for Indicators 5.2.1 and 5.2.2. An Inter-Agency Group on Violence against Women Data and its Technical Advisory Group is currently being established (jointly by WHO, UN Women, UNICEF, UNSD and UNFPA) to establish a mechanism for compiling harmonized country level data.

General information and resources

- UNICEF data: https://data.unicef.org/
- SDG indicators: https://unstats.un.org/sdgs/
- UN Women: http://evawglobal-database.unwomen.org/en
- UNSD Gender: https://unstats.un.org/unsd/gender/vaw/

For further information, please contact the Child Protection and Development focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

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1 Discussions are ongoing among the co-custodian agencies regarding this indicator given overall low data availability and lack of comparability of available data.

INDICATOR 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

Description

Definition and key terms

This indicator is currently being defined as percentage of ever-partnered women and girls aged 15-49 years who have experienced physical or sexual violence by a current or former intimate partner, in the previous 12 months. The rationale for using a proxy indicator is because comparable data are currently only available for a subset of girls and women aged 15 to 49 years and the fact that there is no agreement on a standard operational definition for psychological violence. The proxy indictor, for which comparable data are available, is being used while the SDG indicator's definition is being operationalized.

SDG indicator:

Numerator: Number of ever-partnered women and girls (aged 15 years and above) who experience physical, sexual and/or psychological violence by a current or former intimate partner in the previous 12 months

Denominator: Number of ever-partnered women and girls (aged 15 years and above) in the population

Proxy indicator:

Numerator: Number of ever-partnered women and girls (aged 15-49 years) who experience physical and/or sexual violence by a current or former intimate partner in the previous 12 months

Denominator: Number of ever-partnered women and girls (aged 15-49 years) in the population

This indicator refers specifically to intimate partner violence, which includes any abuse perpetrated by a current or former partner within the context of marriage, cohabitation or any other formal or informal union.

Key terms:

The types of violence included in the indicator currently being used as a proxy for reporting on SDG 5.2.1 are operationally defined as follows:

- 'Physical violence' includes the following acts: pushed her/him, shook her/him or threw something at her/him; twisted her/his arm, pulled her/his hair or slapped her/him; punched her/him with his/her fist or with something that could hurt her/him; kicked her/him, dragged her/him or beat her/him up; tried to choke her/him or burn her/ him; threatened or attacked her/him with a knife, gun or other type of weapon.

- 'Sexual violence' includes the following acts: physically forced her/him to have sexual intercourse with him/her even when she/he did not want to; physically forced her/him to perform any other sexual acts she/he did not want to; forced her/him with threats or in any other way to perform sexual acts when she/he did not want to.

The conceptual definitions of the types of violence covered in the SDG indicator, as defined in the 2014 UN Guidelines for Producing Statistics on Violence against Women are:

- Physical violence consists of acts aimed at physically hurting the victim and include, but are not limited to, pushing, grabbing, twisting the arm, pulling the hair, slapping, kicking, biting or hitting with the fist or object, trying to strangle or suffocate, burning or scalding on purpose, or threatening or attacking with some sort of weapon, gun or knife.

- Sexual violence is defined as any sort of harmful or unwanted sexual behaviour that is imposed on someone. It includes acts of abusive sexual contact, forced engagement in sexual acts, attempted or completed sexual acts without consent, incest, sexual harassment, etc. In intimate partner relationships, experiencing sexual violence is commonly defined as being forced to have sexual intercourse, having sexual intercourse out of fear for what the partner might do, and/or being forced to so something sexual that the woman considers humiliating or degrading.

- Psychological violence includes a range of behaviours that encompass acts of emotional abuse and controlling behaviour.

National data sources

The main sources of intimate partner violence prevalence data are (1) specialized national surveys dedicated to measuring violence against women and (2) international household surveys that include a module on experiences of violence by women, such as the DHS.[2]

The DHS standard module asks all girls and women aged 15 to 49 who have ever been married or cohabited whether they have ever experienced various forms of physical, sexual or emotional violence perpetrated by a current or former spouse or partner. Questions are also asked in reference to experiences that occurred in the 12 months preceding the survey.

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2 These are also the main sources of data for SDG indicator 5.2.2.

Although administrative data from health, police, courts, justice and social services, among other services used by survivors of violence, can provide information on violence against women and girls, these do not produce prevalence data, but rather incidence data or number of cases received/reported to these services. Many abused women do not report violence and those who do, tend to be only the most serious cases. Therefore, administrative data should not be used as a data source for this indicator.

Data collection innovation

Work ongoing by custodian agencies to harmonize databases and develop new data collection instruments to measure psychological violence and violence experienced by older women (aged 50 and above).

Using the indicator

Interpretation

Violence directed at women and girls represents one manifestation of gender inequality and is symptomatic of the widely held view that girls and women have low status in society and are expected to comply with, and conform to, certain defined gender roles. In societies that sanction male dominance over women, violence between intimate partners may be perceived as an ordinary component of interpersonal dynamics between the sexes, particularly in the context of marriage or other unions.

This indicator is intended to characterize current levels of intimate partner violence, regardless of the type of abuse, the type of union, or whether or not the woman is still in union.

Research confirms that girls who marry in childhood are at greater risk for intimate partner violence than same-age peers who marry later.[3] Partner violence can have devastating consequences for the health, wellbeing and overall development of these girls. Moreover, exposure to partner violence can also have intergenerational implications and be detrimental to children's development.[4]

It is important to note that because of the stigma surrounding intimate partner violence, available data are likely to underestimate the true prevalence. Even in nationally representative surveys with interviewers who are trained to collect these sensitive data, women may be reluctant to report their personal experiences. Furthermore, because of estimates based on inconsistent methodologies, any data should be interpreted with caution. This is particularly true when comparing two or more estimates whether from the same or different countries.

Disaggregation

As a minimum, disaggregation by form of violence together with age is recommended, specifically by:

- Physical violence
- Sexual violence
- Psychological violence
- Any form of physical and/or sexual violence

Additionally, survey data often allow for disaggregation by other standard sociodemographic factors including place of residence, geographic location, and household wealth. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by marital status, employment status, number of living children and education level.

Common pitfalls

The availability of comparable data remains a challenge in this area as many data collection efforts have relied on different survey methodologies, used different definitions of partner or spousal violence and of the different forms of violence and different survey question formulations, and diverse age groups are often utilized. Willingness to discuss experiences of violence and understanding of relevant concepts may also differ according to the cultural context and this can affect reported prevalence levels.

Although some countries may have administrative data from services used by survivors of violence such as health, police, courts, justice and social services, this indicator should not be derived from these data sources as many abused women do not report violence.

3 Santhya, K. G., et al., 'Consent and Coercion: Examining unwanted sex among married young women in India', *International Family Planning Perspectives*, vol. 33, no. 3, 2007, pp. 124–132.
4 Wolfe, D. A., et al., 'The Effects of Children's Exposure to Domestic Violence: A meta analysis and critique,' *Clinical Child and Family Psychology Review*, vol. 6, no. 3, 2003, pp. 171–187.

Monitoring and reporting

National

National Statistical Offices (in most cases) or line ministries/other government agencies that have conducted national surveys on violence against women and girls.

Global

Agencies: UN Women, UNICEF, UNSD, WHO, UNFPA

Process: UNICEF maintains the global database on violence that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. For global SDG reporting, estimates from UNICEF's global database are used as a starting point and additional country-level data are added by the other co-custodian agencies if they meet the objective criteria for inclusion.

Timing: The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on 5.2.1 is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data and are not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF data: https://data.unicef.org/topic/child-protection/violence/violent-unions/

- SDG global database: https://unstats.un.org/sdgs/indicators/database/

Tools and measurement guidance:

- Guidelines for Producing Statistics on Violence against Women-Statistical Surveys: https://unstats.un.org/unsd/gender/docs/Guidelines_Statistics_VAW.pdf

- DHS domestic violence module: https://dhsprogram.com/publications/publication-DHSQM-DHS-Questionnaires-and-Manuals.cfm

UNICEF

GOAL 5

Achieve gender equality and empower all women and girls

TARGET 5.3

Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

Target overview

SDG monitoring

SDG Target 5.3 is tracked by the following indicators, both of which are addressed in this briefing note:

- 5.3.1: Proportion of women aged 20-24 years who were first married or in 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, by age

Broader monitoring context

Child marriage and female genital mutilation (FGM) are harmful practices which violate the rights and impair the wellbeing of children. In communities in which they are practiced, both can be seen as a direct manifestation of gender inequality, reflecting societal values that hold girls in low esteem and deprive them of agency. Thus in the SDG framework the target of eliminating harmful practices is placed under the goal for gender equality.

Both the issue of child marriage and FGM are addressed in a number of international conventions and agreements, and are prohibited by national legislation in many countries. The prevalence, or extent to which child marriage and FGM are practiced across the population, is tracked by the SDG indicators.

Data on child marriage have been collected for decades through household surveys such as MICS and DHS, as well as in other population-level data collection instruments which capture demographic information including age at first marriage. Data collection on the prevalence of FGM was first done at the national level in the 1990s, prior to which only small-scale anthropological studies were available. Nationally representative data are now

available for 30 countries in which the practice is concentrated, primarily from MICS and DHS.

Over the years, the MICS and DHS survey programmes have worked to standardize data collection on child marriage and FGM, and their modules have been fully harmonized. Importantly, these modules include relevant questions beyond those needed to calculate the SDG indicators and thus permit a more nuanced understanding of these topics and a range of programmatically useful information.

Given the extent to which harmful practices are upheld by tradition and social norms, measures of the prevalence of these practices are often accompanied by measures of attitudes and beliefs, which may indicate either readiness or resistance to change in practicing populations. Efforts are ongoing to establish a conceptual framework on social norms around harmful practices, and to set measurement standards.

UNICEF role in monitoring

In UNICEF Strategic Plan 2018-2021, child marriage (among boys and girls) and female genital mutilation are impact indicators under Goal Area 3: Every child is protected from violence and exploitation, and specifically link to Outcome Statement 3: Girls and boys, especially the most vulnerable and those affected by humanitarian situations, are protected from all forms of violence, exploitation, abuse and harmful practices.

UNICEF has been monitoring Indicators 5.3.1 and 5.3.2 for many years and is the custodian agency for both. UNICEF supports countries to collect and report on these data through the MICS survey programme.

General information and resources

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the Child Protection and Development focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

Proportion of women aged 20-24 years who were first married or in union before age 15 and before age 18

Description

Definition and key terms

Proportion of women aged 20-24 years who were first married or in union before age 15 and before age 18.

Numerator: Number of women aged 20-24 years who were first married or in union before age 15 (or before age 18)

Denominator: Total number of women aged 20-24 years in the population

Key terms:

- Both formal (i.e., marriages) and informal unions are covered under this indicator. Informal unions are generally defined as those in which a couple lives together as if married but for which there has been no formal civil or religious ceremony (i.e., cohabitation).

- The term 'child marriage' is used to refer to unions in which a girl or boy lives with a partner as if married before the age of 18, though the SDG indicator captures only child marriage among girls.

National data sources

The main sources of such data are national household surveys, predominantly MICS and DHS. The prevalence of child marriage can also be measured in population-level data collection instruments like censuses, if the age at first marriage is captured. In a small number of countries this information is available through marriage registers.

The MICS and DHS survey programmes have worked to harmonize survey questions on child marriage. This standard approach is based on a series of questions asked of all women of reproductive age (15-49), including if they are currently married or "living together with someone as if married", if they have ever been married, current marital status, and what month and year the woman started living with her (first) husband/partner. In countries in which marriage and cohabitation do not typically occur at the same time, the age at first marriage and age at first cohabitation should both be included in questionnaires.

Depending on the country, surveys collecting these data may be conducted every 3-5 years, or possibly at more frequent intervals.

Using the indicator

Interpretation

Child marriage violates the rights of children in a way that often leads to a lifetime of disadvantage and deprivation, especially for girls. Child marriage often compromises a girl's development by resulting in early pregnancy and social isolation, interrupting her schooling, limiting her life opportunities and increasing her risk of experiencing domestic violence. Typically, child brides have little decision-making power within the household, especially when married to older men.

This indicator is measured by ascertaining when the respondent was first married or began a cohabiting union. Note that this indicator captures only the dimension of age at first marriage, and does not reflect all "forced" marriages or unions, which could include unions occurring among women age 18 and older.

Data are also collected on the age of the spouse, and whether the spouse has additional partners. This information can be used to shed light on the type of unions child brides are entering, whether they be polygynous and/or with spouses who are substantially older.

MICS and DHS also collect data on the marital status and age at first marriage for boys and men, thus allowing for estimation of the prevalence of child marriage among boys, though the social dynamics and drivers of child marriage among boys are not yet well understood.

Trends in the prevalence of child marriage can be assessed using estimates from successive data sources over time, or by comparing estimates across age groups within a single data source. The age group method is preferred because it minimizes the effect of any variations across surveys. Using this method, the level of child marriage among women aged 20-24 years can be considered the most recent estimate, as this is the age group which most recently completed exposure to the risk period. This level can be compared with the same estimate among older women, for example aged 45 to 49, which would represent the risk of marrying in childhood 25 years prior to the survey.

Disaggregation

Standard background characteristics include place of residence, geographic location, wealth, and education. Additionally, depending on the data source it may also be possible to disaggregate by ethnicity and/or religion.

Common pitfalls

The measure of child marriage is retrospective in nature by design, capturing age at first marriage among a population which has completed the risk period (i.e. adults). While it is also possible to measure the current marital status of girls under age 18, such measures would provide an underestimate of the level of child marriage, as girls who are not currently married may still do so before they turn 18.

Monitoring and reporting

National

National Statistical Offices (in most cases)

Global

Agencies: UNICEF

Process: UNICEF maintains the global database on child marriage that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data, together with global and regional averages, are released annually both as part of State of the World's Children and on UNICEF's dedicated website for statistics (data. unicef.org). The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on child marriage, is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data and are generally not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: http://data.unicef.org/topic/child-protection/child-marriage/

- SDG metadata: https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- MICS modules:
    - » Women: http://data.unicef.org/wp-content/uploads/2017/12/MICS6-Marriage-module_Women.pdf
    - » Men: http://data.unicef.org/wp-content/uploads/2017/12/MICS6-Marriage-module_Men.pdf

INDICATOR 5.3.2

Proportion of girls and women aged 15-49 years who have undergone female genital mutilation, by age

Description

Definition and key terms

Proportion of girls and women aged 15-49 years who have undergone female genital mutilation

Numerator: Number of girls and women aged 15-49 years who have undergone FGM

Denominator: Total number of girls and women aged 15-49 years in the population

Key terms:

- Female genital mutilation (FGM) refers to "all procedures involving partial or total removal of the female external genitalia or other injury to the female genital organs for non-medical reasons"[1]

- The term "female circumcision" is often used interchangeably with FGM, although some object to this term as it erroneously suggests that female circumcision is analogous to male circumcision.

National data sources

Nationally representative data on FGM are mainly available from MICS and DHS surveys, in a module which is included by countries in which the practice is concentrated. In some countries, data have been collected through other nationally representative household surveys.

The MICS and DHS survey programmes have worked to fully harmonize survey questions on FGM. This standard approach is based on a series of questions asked of all women of reproductive age (15-49), which include whether the respondent has heard of FGM, whether or not the respondent herself has been cut, the type of FGM performed, at what age they were cut and by whom. Most surveys include additional questions related to women's – and in some cases men's – attitudes surrounding FGM. Female respondents are also asked about the FGM status of all of their daughters under age 15.

Depending on the country, surveys collecting these data may be conducted every 3-5 years, or possibly at more frequent intervals.

Using the indicator

Interpretation

FGM is a violation of girls' and women's human rights and is condemned by many international treaties and conventions, as well as by national legislation in many countries. There is a large body of literature documenting the adverse health consequences of FGM over both the short and long term. The practice of FGM is a direct manifestation of gender inequality. Yet, where it is practised FGM is performed in line with tradition and social norms to ensure that girls are socially accepted and marriageable, and to uphold their status and honour and that of the entire family.

Data on FGM inform policymakers of critically important variables in an effort to better understand the practice and develop policies for its abandonment. That said, these data must be analysed in light of the extremely delicate and often sensitive nature of the topic. Self-reported data on FGM need to be treated with caution for several reasons. Women may be unwilling to disclose having undergone the procedure because of the sensitivity of the topic or the illegal status of the practice in their country. In addition, women may be unaware that they have been cut or of the extent of the cutting, particularly if FGM was performed at an early age.

Data users should also keep in mind the retrospective nature of these data, which results in this indicator not being sensitive to recent change. In the case of a country where girls are cut before 1 year of age, for example, most girls age 15-19 are reporting on an event that took place 14-18 years previously. Thus there is a time lag between when changes in the practice occur and when they are reflected in the data.

The SDG indicator may thus be best interpreted in conjunction with other data from the survey, including prevalence estimates among daughters age 0-14 (although prevalence among this age group should be considered an underestimate, as additional girls may still be subject to the practice once they reach the customary age at cutting) and attitudes toward FGM, both of which are included in the standard MICS and DHS modules.

Trends in the prevalence of FGM can be assessed using estimates from successive data sources over time, or by comparing estimates across age cohorts within a single data source. The age cohort method is preferred because it minimizes the effect of any variations across surveys. Using this method, the level of FGM among women aged 15-19 years can be considered the most recent estimate, as this is the age cohort which most recently completed exposure to the risk period (assuming all cutting occurs before age 15, which should be assessed on a country by country basis). This level can be compared with the same estimate among older women, for example aged 45-49, which would represent the prevalence of FGM among young women 30 years prior to the survey.

1 World Health Organization, Eliminating Female Genital Mutilation: An interagency statement, WHO, UNFPA, UNICEF, UNIFEM, OHCHR, UNHCR, UNECA, UNESCO, UNDP, UNAIDS, WHO, Geneva, 2008, p.4

Disaggregation

Standard background characteristics include place of residence, geographic location, wealth, and education. Additionally, depending on the data source it may also be possible to disaggregate by ethnicity and/or religion. Ethnicity is an important determinant for FGM and so data should be disaggregated by this characteristic, if possible.

Common pitfalls

As detailed in the "Interpretation" section above, this indicator needs to be interpreted with caution. A particular challenge is examining trends, particularly when trying to establish a connection between programmatic activities and changes in prevalence levels over time, due to the time lag in reporting and the geographic concentration of both the practice and programming. Furthermore, in terms of understanding the prevalence it may be misleading to focus on national-level estimates, as in many countries FGM is practiced by specific ethnic groups which may be concentrated in certain geographic locations in the country.

In MICS and DHS, questions about FGM are only included in a subset of countries where the practice is concentrated. Thus, it is important to note that even in countries with no FGM data, the practice still may exist. This may include high-income countries that are destinations for migrants from countries where the practice still occurs, as well as certain low- and middle-income countries in which FGM exists among specific population groups.

Monitoring and reporting

National

National Statistical Offices (in most cases)

Global

Agencies: UNICEF

Process: UNICEF maintains the global database on FGM that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data and aggregate analysis are released annually both as part of State of the World's Children and on UNICEF's dedicated website for statistics (data.unicef.org). The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on FGM, is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data and are not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: http://data.unicef.org/topic/child-protection/female-genital-mutilation-and-cutting/

- SDG metadata:https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- MICS: http://data.unicef.org/wp-content/uploads/2017/12/MICS6-FEMALE-GENITAL-MUTILATION-module.pdf

UNICEF

GOAL 6

Ensure availability and sustainable management of water and sanitation for all

TARGET 6.1

By 2030, achieve universal and equitable access to safe and affordable drinking water for all

Broader monitoring context

Universal access to safe drinking water is a human right and a key determinant of child survival, maternal, and children's health, family wellbeing, and economic productivity. It is a core socio-economic and health indicator and a central focus of UNICEF's efforts to ensure every child lives in a safe and clean environment (SP pillar #4). To date UNICEF has primarily focused on extending access to basic services and strengthening national monitoring of inequalities in service levels.

Target overview

SDG monitoring

SDG target 6.1 is tracked by the following indicator:

- 6.1.1: Proportion of population using safely managed drinking water services

UNICEF role in monitoring

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has been monitoring progress on drinking water and sanitation since 1990, and uses service ladders, which capture progressive realization of universal access to drinking water, to benchmark and compare progress across countries. The ladders build on the established improved/unimproved facility type classification, thereby providing continuity with MDG monitoring, and introduce additional criteria for SDG monitoring relating to the level of service provided to households. The JMP will continue to monitor all rungs on each ladder, with a particular focus on those that relate to progress towards SDG targets.

JMP service ladder for drinking water

SERVICE LEVEL	DEFINITION	SDG INDICATOR #
Safely managed	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination	SDG 6.1.1
Basic	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing	SDG 1.4.1
Limited	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing	
Unimproved	Drinking water from an unprotected dug well or unprotected spring	
Surface water	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal	

Note: Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water

Affordability of water and sanitation services, which is explicitly included in the wording of the target, is an important cross-cutting concern. At present there is no commonly agreed approach to assessing affordability of WASH services, and so the methods underlying existing country data may vary. The JMP is using available data on household expenditure, tariffs, income and poverty to start benchmarking affordability across countries and reporting national, regional and global trends.

While household access remains the primary concern, international consultations recommended that future monitoring should also prioritise institutional settings, including schools, health care facilities and workplaces, where lack of access to WASH significantly impacts on the health, welfare and productivity of populations. The language of SDG targets 6.1 and 6.2 referring to 'universal access' and 'for all' further reinforce the importance of WASH in all settings, not only the household.

General information and resources

- UNICEF data: https://data.unicef.org

- MICS: http://mics.unicef.org/tools

- SDG metadata: https://unstats.un.org/sdgs/metadata/

- JMP website: https://washdata.org

- Brochure on WASH in the 2030 Agenda: https://washdata.org/report/jmp-2017-wash-2030-agenda

- Sanitation and Water for All: http://sanitationandwaterforall.org/

For further information, please contact the WASH focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 6.1.1

Proportion of population using safely managed drinking water services

Description

Definition and key terms

Proportion of population using safely managed drinking water services is defined as the proportion of population using an improved drinking water source which is accessible on premises, available when needed, and free of faecal (and priority chemical) contamination.

Key terms:

- 'Improved' drinking water sources include: piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tubewells; protected dug wells; protected springs; packaged water (bottled, sachet); delivered water (tanker trucks, small cart) and rainwater.

- A water source is considered to be 'accessible on premises' if the point of collection is within the dwelling, yard, or plot.

- 'Available when needed': households report being able to access sufficient quantities of water when needed.

- Free from faecal and priority chemical contamination': *E. coli* or thermotolerant coliforms are the preferred indicator for microbiological quality, and arsenic and fluoride are the priority chemicals for global reporting.

National data sources

Household surveys and censuses: Access to drinking water and sanitation is a core indicator for most household surveys in low and middle income countries. Surveys and censuses provided the great majority of data used for tracking the WASH MDGs, and will continue to be at the heart of SDG reporting. Household surveys and censuses can provide information on types of basic drinking water sources, and also indicate if sources are on premises. These data sources often have information on the availability of water and increasingly on the quality of water at the household level, through direct testing of drinking water for faecal or chemical contamination. As SDG monitoring continues, these data will be combined with data on availability and compliance with drinking water quality standards (faecal and chemical) from administrative reporting or regulatory bodies.

National Management Information Systems (MIS): Administrative data provide information that cannot always be measured through household surveys, particularly on the levels of service (quality, availability). In several high-income countries, where information on the use of basic services is not collected in household surveys, data can be drawn from regulators and administrative records. In many low- and middle-income settings,

however, sectoral monitoring systems are weak or absent and information on service levels is a major data gap. As sector capacities strengthen MIS can increasingly provide reliable information on the availability and quality of drinking water services.

Data collection innovation

The JMP has been actively advancing measurement methodologies for WASH in the SDG era.

Household: The JMP collaborated with the UNICEF MICS team to develop a module for direct testing of drinking-water quality which is now being rolled out in national household surveys. Field teams test for E. coli, which indicates the risk of faecal contamination, in different water sources and across population groups to identify inequalities. Drinking water can also be tested for chemicals such as arsenic and fluoride. New questions relating to the accessibility and availability of drinking water have also been tested and validated for use in the sixth round of MICS household surveys.

Schools: The JMP has published Core questions and indicators for monitoring WASH in Schools in the Sustainable Development Goals.

Health facilities: A series of JMP-convened working groups and expert reviews has resulted in a harmonized set of generic core indicators and questions. Additional modules are being developed to address additional WASH requirement in specific service areas (e.g. delivery rooms).

Using the indicator

Interpretation

The indicator "Safely managed drinking water" goes beyond the concept of "improved" water sources, used to track progress towards the MDG target. To be considered "safely managed", the improved source, must also be 1) accessible on premises, 2) available when needed, and 3) free from faecal and priority chemical contamination. The new indicator is much more ambitious than the MDG indicator and baselines will be considerably lower in most countries.

In terms of contamination of drinking water, for global monitoring purposes the priority water quality parameter will be the absence of faecal indicator bacteria (*E. coli* or thermotolerant coliforms). Data on arsenic and fluoride will also be used where available. As such global estimates will not reflect compliance with all parameters in national standard or WHO Guidelines.

The indicator "Basic drinking water services" measures the proportion of people using an improved source of drinking water that required no more than 30 minutes per trip to collect water. This is one of the indicators that will be used to track progress towards SDG target 1.4 which aims, inter alia, for universal access to basic services.

Disaggregation

Disaggregation by place of residence (urban/rural), socioeconomic status (wealth) and sub-national region is possible for nearly all countries for basic services and may be possible for safely managed services in future. Disaggregation by other stratifiers of inequality such as ethnicity, education, or migratory status may also be considered where relevant but these are generally not available from administrative data sources. Wherever possible drinking water services will also be disaggregated by the JMP by service level (including no services, basic, and safely managed services) following drinking water ladder.

Common pitfalls

Data on availability and quality of drinking water is increasingly available through a combination of household surveys and administrative sources including regulators, but definitions have yet to be standardized. Existing data on availability are based on different measures and may not be comparable between countries, for example data from administrative sources often record the average number of hours of service per day whereas household surveys can assess whether sufficient water is available to meet domestic needs. Data drawn from regulatory databases may only cover, or primarily reflect, formal services in urban areas and often does not allow for disaggregation. Data on faecal and chemical contamination, drawn from household surveys and regulatory databases, will not cover all countries immediately, although sufficient data were available to make global and regional estimates of safely managed drinking water services for four out of eight SDG regions in 2017.

Whereas trends for basic services can be considered reasonably reliable for most countries, in 2017 there were insufficient data to generate reliable estimates of trends for safely managed drinking water services in most countries.

Monitoring and reporting

National

National statistics offices, Ministries of water, sanitation, health, environment and/or regulators of water and sanitation services.

Global

Agencies: WHO and UNICEF (WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene)

Process: The JMP maintains a database with nearly 5000 censuses, surveys and administrative records identified through extensive searches of published data and consultation with countries. The JMP uses a standard international classification to estimate access to type of source for each country, separately in urban and rural areas, by fitting a regression line to a series of data points from household surveys and censuses. The JMP then estimates the

population using services that meet each of criteria for safely managed services. The population data used by the JMP, including the proportion of the population living in urban and rural areas, are those routinely updated by the UN Population Division. All JMP estimates undergo rigorous country consultations facilitated by WHO and UNICEF country offices. Often these consultations give rise to in-country visits, and meetings about data on drinking water, sanitation and hygiene services and the monitoring systems that collect these data. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

Timing: New country, regional, and global estimates are published every two years. Baseline SDG estimates were published in July 2017 and will be updated in 2019.

Discrepancies with national estimates: JMP estimates are based on national sources of data approved as official statistics. Differences between global and national figures arise due to differences in indicator definitions and methods used in calculating national coverage estimates. In some cases national estimates are based on the most recent data point rather than from regression on all data points as done by the JMP. In some cases national estimates draw on administrative records of infrastructure coverage rather than the nationally representative surveys and censuses used by the JMP which collect information directly from households. For global reporting the JMP calculates the population using safely managed services based on the minimum value of the three criteria (accessibility, availability and quality) for rural, urban and national. For national reporting countries may report the elements of safely managed services separately and/or combine them at different levels.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/water-and-sanitation/drinking-water/
- JMP website: https://washdata.org
- JMP 2017 update and SDG baselines: https://washdata.org/report/jmp-2017-report-highlights
- JMP Thematic Report on Safely Managed Drinking Water: https://washdata.org/report/jmp-2017-tr-smdw
- SDG metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-06-01-01.pdf

Tools and measurement guidance:

- Core questions for monitoring WASH in schools: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-wins-0
- Core questions for monitoring WASH in healthcare facilities: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-winhcf
- SDG6 monitoring initiative: http://www.sdg6monitoring.org/news/integrated-monitoring-guide-sdg-6
- MICS6 tools (household questionnaire, women's questionnaire, water quality testing questionnaire): http://mics.unicef.org/tools

GOAL 6

Ensure availability and sustainable management of water and sanitation for all

TARGET 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

Target overview

SDG monitoring

SDG target 6.2 is tracked by the following indicators:

- 6.2.1a: Proportion of population using safely managed sanitation services

- 6.2.1b: Proportion of population with a basic handwashing facility on premises

Broader monitoring context

Universal access to sanitation and hygiene are key determinants of child survival, maternal, and children's health, family wellbeing, and economic productivity. These are core socio-economic and health indicators and a central focus of UNICEF's efforts to ensure every child lives in a safe and clean environment (Strategic Plan pillar #4). To date UNICEF has primarily focused on extending access to basic services and strengthening national monitoring of inequalities in service levels.

UNICEF role in monitoring

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has been monitoring progress on drinking water and sanitation since 1990. The JMP uses service ladders, which capture progressive realization of universal access to safely managed sanitation services and enable benchmarking and comparison of progress across countries. The ladders build on the established improved/unimproved facility type classification, thereby providing continuity with MDG monitoring, and introduce additional criteria for SDG monitoring relating to the level of service provided to households. The JMP will continue to monitor all rungs on each ladder, with a particular focus on those that relate to progress towards SDG targets.

JMP service ladder for sanitation

SERVICE LEVEL	DEFINITION	SDG #
Safely managed	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite	SDG 6.2.1a
Basic	Use of improved facilities that are not shared with other households	SDG 1.4.1
Limited	Use of improved facilities shared between two or more households	
Unimproved	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines	
Open defecation	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste	

Note: improved facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs.

JMP service ladder for hygiene

SERVICE LEVEL	DEFINITION	SDG #
Basic	Availability of a handwashing facility on premises with soap and water	SDG 6.2.1b SDG 1.4.1
Limited	Availability of a handwashing facility on premises without soap and water	
No facility	No handwashing facility on premises	

Note: Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents.

It is important to note that 'hygiene for all' is multi-faceted and can comprise other behaviours, including menstrual hygiene and food hygiene. To date global monitoring has focused on access to drinking water, sanitation and hygiene at the household level. While household access remains the primary concern, international consultations recommended that future monitoring should also prioritise institutional settings, including schools, health care facilities and workplaces, where lack of access to WASH significantly impacts on the health, welfare and productivity of populations. The language of SDG Target 6.2 referring to 'universal access' and 'for all' further reinforces the importance of WASH in all settings, not only the household.

General information and resources

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

- JMP website: https://washdata.org

- Brochure on WASH in the 2030 Agenda: https://washdata.org/report/jmp-2017-wash-2030-agenda

- Sanitation and Water for All: http://sanitationandwaterforall.org/

For further information, please contact the WASH focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 6.2.1A

Proportion of population using safely managed sanitation services

Description

Definition and key terms

The Proportion of population using safely managed sanitation services is defined as the population using a basic sanitation facility which is not shared with other households and where excreta is safely disposed in situ or treated off-site.

Key terms:

- 'Improved' sanitation facilities include: 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.

- Safely disposed in situ; refers to cases in which the contents of pit latrines or septic tanks are not emptied, and the faecal wastes remain in the ground, with pathogens dying off over time. Another possibility is that when storage pits and tanks become full, the contents are emptied and buried in a covered pit, without being transported off premises. In both cases the wastes would be considered as "safely managed" for SDG reporting.

- Emptied and treated offsite; when septic tanks or pit latrines are emptied, the wastes should be transported to an appropriate facility for treatment and disposal. If there are records showing that de-sludging trucks have delivered waste collected from a given population to appropriate treatment plants, or have discharged sludge into sewers which reach such treatment plants, these wastes can be considered as safely managed. In the absence of data on treatment, it is assumed that excreta emptied from septic tanks and latrines is not safely managed.

- Wastewater treated; households with sewer connections are classed as using safely managed sanitation services if the excreta are effectively contained and transported through sewer lines to treatment plants providing at least a secondary level of treatment.

National data sources

The percentage of the population using safely managed sanitation services can be calculated by combining data on the proportion of the population using different types of improved sanitation facilities with estimates of the proportion of faecal waste which is safely disposed in situ or transported and treated off-site.

Household surveys and censuses: Questions about access to drinking water and sanitation are routinely included in most household surveys in low and middle income countries. Surveys and censuses provided the great majority of data used for tracking the WASH MDGs, and will continue to be at the heart of SDG reporting. Household surveys and censuses can provide information on types of basic sanitation facility, the location of the facility, and whether or not it is shared. These data underlie the sanitation ladder, including open defecation, which is explicitly mentioned in target 6.2.

National Management Information Systems (MIS): Administrative and regulatory data provide information that cannot always be measured through household surveys, particularly on the levels of service (including management and treatment of excreta). In several high-income countries, where information on the use of basic services is not collected in household surveys, data can be drawn from administrative records.

In many low- and middle-income settings, incomplete data on excreta management in on-site systems is the most challenging data gap for monitoring this indicator. Important gaps also exist for sewered systems, such as the amount of excreta that is lost in transport, and the amount of excreta that bypasses treatment plants or is discharged without receiving at least secondary treatment.

Data collection innovation

The JMP has been actively advancing measurement methodologies for WASH in the SDG era.

Household: The JMP collaborated with the UNICEF Multiple Indicator Cluster Survey (MICS) programme to develop and test new questions and indicators which fill data gaps regarding sanitation services, starting with the sixth round of MICS surveys. New questions were developed and standardized that collect information from households on emptying of on-site sanitation facilities, as well as the number of households with "sewer connections" that discharge to open drains, and should not be counted as safely managed.

Schools: The JMP has published Core questions and indicators for monitoring WASH in Schools in the Sustainable Development Goals.

Health facilities: A series of JMP-convened working groups and expert reviews has resulted in a harmonized set of generic core indicators and questions. Additional modules are being developed to address additional WASH requirement in specific service areas (e.g. delivery rooms).

Using the indicator

Interpretation

The indicator "proportion of the population using safely managed sanitation services" goes beyond the concept of "improved" facilities, used to track progress towards the MDG target. To be considered "safely managed ", the facility must be 1) an improved source, 2) not shared with other households, and 3) the excreta produced should either be treated and disposed of in situ, or be stored temporarily and then emptied, transported and treated off-site, or be transported through a sewer with wastewater and then treated off-site.

The new indicator is much more ambitious than the MDG indicator. This results in relatively sparse estimates at present. While almost all countries have data on access to basic WASH services (SDG 1.4),

service-level data required to estimate "safely managed sanitation services" are less widely available. Where estimates can be produced, baselines will be considerably lower in most countries.

Thus, it is important to assess country performance looking at all rungs on the sanitation ladder. If the excreta from improved sanitation facilities are not safely managed, then people using those facilities will be classed as having a basic sanitation service (SDG 1.4). People using improved facilities that are shared with other households will be classified as having a limited service. The JMP will also continue to monitor the population practising open defecation, which is an explicit focus of SDG target 6.2.

Disaggregation

Disaggregation by place of residence (urban/rural) and socioeconomic status (wealth) is possible for nearly all countries for basic services and may be possible for safely managed services in future. Disaggregation by other stratifiers of inequality (subnational region, gender, education, disadvantaged groups, etc.) is possible in some countries but these are generally not available from administrative sources. Wherever possible sanitation services will also be disaggregated by the JMP by service level (including no services, basic, and safely managed services) following the sanitation ladder.

Common pitfalls

While the SDG targets are ambitious the first priority in many low income countries is to end open defecation and achieve universal access to basic sanitation services. Many countries have large data gaps with respect to the safe management and of excreta and indicator definitions have not yet been standardized making it difficult to compare across countries. While most countries have data on treatment of wastewater from sewer connections, relatively few have data on emptying and treatment of excreta from on-site sanitation systems. Regulatory data is often limited to public sewer systems in urban areas which typically only serve a small proportion of the total population. For the purposes of global monitoring sanitation facilities that are shared with other households do not count as basic or safely managed services but in some countries national standards permit limited sharing.

Monitoring and reporting

National monitoring

National statistics offices, Ministries of water, sanitation, health, environment and/or regulators of water and sanitation services.

Global monitoring

Agencies: WHO and UNICEF (WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene)

Process: The JMP maintains a database with nearly 5000 censuses, surveys and administrative records identified through extensive searches of published data and consultation with countries. The JMP uses a standard international classification to estimate access to type of source for each country, separately in urban and rural areas, by fitting a regression line to a series of data points from household surveys and censuses. The JMP then estimates the population using services that meet each of criteria for safely managed services. The population data used by the JMP, including the proportion of the population living in urban and rural areas, are those routinely updated by the UN Population Division. All JMP estimates undergo rigorous country consultations facilitated by WHO and UNICEF country offices. Often these consultations give rise to in-country visits, and meetings about data on drinking water, sanitation and hygiene services and the monitoring systems that collect these data. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

Timing: New country, regional, and global estimates are published every two years. Baseline SDG estimates were published in July 2017 and will be updated in 2019.

Discrepancies with national estimates: JMP estimates are based on national sources of data approved as official statistics. Differences between global and national figures arise due to differences in indicator definitions and methods used in calculating national coverage estimates. In some cases national estimates are based on the most recent data point rather than from regression on all data points as done by the JMP. In some cases national estimates draw on administrative records of infrastructure coverage rather than the nationally representative surveys and censuses used by the JMP which collect information directly from households.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/water-and-sanitation/sanitation/
- JMP website: https://washdata.org
- JMP 2017 update and SDG baselines: https://washdata.org/report/jmp-2017-report-final
- SDG metadata: https://unstats.un.org/sdgs/metadata/

Tools and measurement guidance:

- Core questions for monitoring WASH in schools: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-wins-0
- Core questions for monitoring WASH in healthcare facilities: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-winhcf
- SDG6 monitoring initiative: http://www.sdg6monitoring.org/news/integrated-monitoring-guide-sdg-6
- MICS6 tools (household questionnaire): http://mics.unicef.org/tools

INDICATOR 6.2.1B

Proportion of population with a basic handwashing facility on premises

Description

Definition and key terms

Proportion of population with a basic handwashing facility on premises is defined as the population living in households that have a handwashing facility on premises with soap and water available.

Key terms:

• A handwashing facility is a device to contain, transport or regulate the flow of water to facilitate handwashing. Handwashing facilities may be fixed or mobile and include a sink with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing.

• Soap includes bar soap, liquid soap, powder detergent, and soapy water but does not include ash, soil, sand or other handwashing agents that may be used in some cultures but are less effective than soap.

• Water should be available at or close to the handwashing facility and may include running water from a tap, or container with a tap, and stored water that is transferred when needed from a container, bucket, basin or jug to facilitate handwashing.

National data sources

Household surveys: Observation of a handwashing facility with soap and water available has been a standard component of the MICS and DHS since 2009. To collect these data, the surveyor visits the handwashing facility and observes if water and soap are present. Depending on the country, surveys collecting these data may be conducted every 3-5 years, or possibly at more frequent intervals.

Data collection innovation

To overcome the data gap for high-income countries for future reporting on SDGs 1 and 6, the JMP will develop a suitable proxy for the availability of handwashing facilities in the home, drawing on data that are more likely to be available for high-income countries, such as the availability of piped water supplies, hot water, showers or bathrooms on premises. The JMP has also collaborated with MICS to develop and test new questions on menstrual hygiene management for inclusion in the women's questionnaire.

Using the indicator

Interpretation

Hygiene refers to the conditions and practices that help maintain health and prevent spread of disease. Handwashing with soap is a very cost-effective intervention for disease prevention. The presence of soap and water at a designated place is used a proxy for handwashing behaviours, having been found to be more accurate than other proxies such as self-reports of handwashing practices.

Households that have a handwashing facility with soap and water available on premises will meet the criteria for a basic hygiene facility. Households that have a facility but lack water or soap will be classified as having a limited facility, and distinguished from households that have no facility at all. In some cultures, ash, soil, sand or other materials are used as handwashing agents, but these are less effective than soap and are therefore counted as limited handwashing facilities.

International consultations among WASH sector professionals identified handwashing with soap and water as a top priority in all settings, and also as a suitable indicator for national and global monitoring, but one indicator does not encompass the spectrum of hygiene essential for good public health. 'Hygiene for all' is multi-faceted and comprises other behaviours, including menstrual hygiene and food hygiene.

Disaggregation

Disaggregation by place of residence (urban/rural) and socioeconomic status (wealth) is standard in MICS and DHS surveys. Because these survey programmes collect these data at the household level, it is infeasible to accurately measure intra-household inequalities such as sex, age, or disability.

Common pitfalls

Presence of a handwashing station with soap and water does not guarantee that household members consistently wash hands at key times, but has been accepted as the most suitable proxy for use in household surveys. National standards for handwashing vary, for example some countries exclude mobile facilities, include local handwashing agents, or require handwashing facilities to be located inside the dwelling. In a small number of cases households refuse to give enumerators permission to observe their facilities.

Monitoring and reporting

National monitoring

National statistics offices, Ministries of water, sanitation, health, environment

Global monitoring

Agencies: WHO and UNICEF (WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene)

Process: The JMP maintains a database with comparable survey estimates identified through extensive searches of published data and consultation with countries. Linear regression is used to estimate basic handwashing facilities, drawing on data on the population with handwashing facilities, soap and water observed at home. The small number of households that do not give permission to observe their facilities are excluded from estimates. All JMP estimates undergo rigorous country consultations facilitated by WHO and UNICEF country offices. Often these consultations give rise to in-country visits, and meetings about data on drinking water, sanitation and hygiene services and the monitoring systems that collect these data. The JMP is evaluating the use of alternative statistical estimation methods as more data become available.

Timing: New country, regional, and global estimates are published every two years. Baseline SDG estimates were published in July 2017 and will be updated in 2019.

Discrepancies with national estimates:

JMP estimates are based on national sources of data approved as official statistics. Differences between global and national figures may arise due to differences in definitions. The JMP approach is to use linear regression to estimate basic handwashing facilities for a common reference year across countries with available data, whereas national estimates would typically be based on the most recent survey data point.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/water-and-sanitation/hygiene/

- JMP website: https://washdata.org

- JMP 2017 update and SDG baselines: https://washdata.org/report/jmp-2017-report-final

- SDG metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-06-02-01.pdf

Tools and measurement guidance:

- Core questions for monitoring WASH in schools: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-wins-0

- Core questions for monitoring WASH in healthcare facilities: https://washdata.org/report/jmp-2016-core-questions-and-indicators-monitoring-winhcf

- SDG6 monitoring initiative: http://www.sdg6monitoring.org/news/integrated-monitoring-guide-sdg-6

- MICS6 tools (household questionnaire): http://mics.unicef.org/tools

UNICEF

GOAL 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

TARGET 8.7

Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

frameworks into operational definitions for measurement purposes has been a subject of considerable debate and disagreement. However, in December 2008, the International Conference of Labour Statisticians (ICLS) adopted the resolution concerning the measurement of working time, which confirmed UNICEF's long-standing view that household chores, along with other types of work undertaken by children, should be included in the measurement of child labour. The resolution sets standards for the collection and analysis of data on child labour and calls upon all countries to develop a system of child labour statistics. The resolution also confirms that any type of work undertaken by children should be considered in the measurement of child labour, in addition to economic activities. The resolution covers children aged 5-17 who, during a specified time period, were engaged in any of the following: worst forms of child labour, employment below the minimum age or unpaid household services. It provided an important foundation for future statistical work in this area and offers the promise of easier comparability of national data.

Target overview

SDG monitoring

SDG Target 8.7 is tracked by the following indicator:

- 8.7.1: Proportion and number of children aged 5-17 years engaged in child labour, by sex and age

Broader monitoring context

Reliable, comprehensive and timely data on the nature and extent of child labour provide a basis for determining priorities for national and globall action against child labour.

The international legal standards that define child labour serve as the necessary frame of reference for child labour statistics. Three principal international conventions on child labour together set the legal boundaries, and provide the legal basis for national and international actions against it: ILO Convention No. 138 (Minimum Age) (C138), ILO Convention No. 182 (Worst Forms) (C182), and the United Nations Convention on the Rights of the Child (CRC).

While these legal standards and conventions have defined the issue of child labour and its underlying concepts, the translation of these

UNICEF role in monitoring

Child labour is not included as an indicator in UNICEF's Strategic Plan for 2018-2021.

UNICEF, together with ILO, is co-custodian for SDG indicator 8.7.1. UNICEF, through the MICS survey programme, has also advanced standardized measurement of children engaged both in economic activities and in household chores. MICS has strengthened the evidence base both through methodological innovations, as well as supporting countries to collect and analyze these data.

General information and resources

- UNICEF data: https://data.unicef.org/
- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org
- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the Child Protection and Development focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 8.7.1

Proportion and number of children aged 5-17 years engaged in child labour, by sex and age

Description

Definition and key terms

The proportion of children aged 5-17 years in child labour is calculated as the number of children in child labour divided by the total number of children in the population.

The definition of child labour is based on the number of hours spent working and includes engagement in both economic activities and household chores.[1] Specifically, the used by UNICEF and the ILO, building on the ICLS statistical definition, classifies child labour on the basis of the following criteria:

- Ages 5-11: at least 1 hour of economic activity per week or at least 21 hours of household chores;

- Ages 12-14: at least 14 hours of economic activity per week in all forms of economic activity except permissible "light" work, where light work is operationally defined as economic activity that does not exceed 14 hours per week or at least 21 hours of household chores;

- Ages 15-17: at least 43 hours of economic activity per week in all forms of economic activity except permissible "light" work, where light work is operationally defined as economic activity that does not exceed 43 hours per week

The normative definition of child labour also includes working in activities that are hazardous in nature. However, to ensure comparability of estimates, it has been decided by UNICEF and ILO to exclude engagement in hazardous occupations or under hazardous working conditions from the estimates of child labour for the purpose of reporting on SDG indicator 8.7.1. Further methodological work will be needed to validate questions aimed at identifying children engaged in hazardous activities.

Numerator: Number of children aged 5-17 years reported to be in child labour during the reference period (usually the week prior to the survey)

Denominator: Total number of children aged 5-17 years in the population

Key terms:

- *Economic activity* includes all types of establishments or businesses in which persons are engaged in the production and/or distribution of goods and services.

- *Household chores* refer to services rendered by and for household members without pay. These include activities such as cooking, ironing, housecleaning, shopping, looking after children, small repairs, fetching water or firewood, etc.

National data sources

The main sources of data on child labour are household surveys such as MICS, DHS and International Labour Organization (ILO)-supported Statistical Information and Monitoring Programme on Child Labour (SIMPOC) surveys, as well as national labour force and employment surveys.

The MICS module covers children 5-17 years old and includes questions on the type of work performed and the number of hours he or she is engaged in it. Data are collected on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores such as cooking, cleaning or caring for children). The MICS child labour module also collects information on hazardous working conditions.

In some DHS surveys the module on child labour was included and data on child labour have been collected.

SIMPOC questionnaires have been developed for use in a variety of data collection methods, including in stand-alone, household-based, child labour surveys and as a separate module in other household-based surveys. No specific operational definition of child labour is used in SIMPOC surveys across countries, but estimates are calculated on the basis of the definition used in the national legislation of individual countries. As a result, the definition of child labour that is used to calculate child labour estimates differs markedly among countries, as do the resulting estimates.

Data collection innovation

UNICEF and the ILO have started background work to identify methodologies that can be used in diverse conflict settings to produce estimates of the number of children recruited and used by armed forces and groups.

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1 UNICEF and ILO are currently exploring the feasibility of separately reporting on i) economic activities only; and ii) economic activities plus household chores

Using the indicator

Interpretation

Children around the world are routinely engaged in various forms of paid and unpaid work that are not harmful to them. However, they are considered child labourers when they are either too young to work or are carrying out activities that could compromise their physical, mental, social and/ or educational development.

As per the 2008 resolution concerning statistics of child labour, the definition of child labour is based on the number of hours spent working and working conditions and includes engagement in both economic activities and household chores. From both a programmatic and policy perspective, it is important to "unpack" the indicator by examining both components (economic activity and household chores) to identify whether child labour prevalence varies according to certain background characteristics of the child and the household.

For all countries, the recommended target for child labour is elimination (0%). National estimates that might be considered low can potentially mask pockets of child labour within certain sub-populations.

Disaggregation

As a minimum, this indicator should be disaggregated by sex and age group (age bands 5-11, 12-14 and 15-17). Additionally, survey data often allow for disaggregation by other standard sociodemographic factors and outcome indicators such as household wealth, place of residence, geographic location, and school attendance. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by mother's level of education, ethnicity, religion, child functional difficulty and mother's functional difficulties.

Common pitfalls

Child labour estimates based on the statistical standards set out in the ICLS resolution represent useful benchmarks for international comparative purposes but are not necessarily consistent with estimates based on national child labour legislation. ILO Convention No. 138 contains a number of flexibility clauses left to the discretion of the competent national authority in consultation (where relevant) with workers' and employers' organizations (e.g., minimum ages, scope of application). This means that there is no single legal definition of child labour across countries, and thus, no single statistical measure of child labour consistent with national legislation across countries.

Despite the availability of national data on child labour for a large number of low- and middle-income countries, the worst forms of child labour have still not been captured in measurement efforts. These include all forms of slavery or similar practices such as trafficking and the recruitment and use of child soldiers, the use or procurement of children for prostitution or other illicit activities, and other work that is likely to harm children's health, safety or well-being.

Regarding data collection pitfalls, the timing of the survey may affect the levels of child labour observed in a country. This is particularly true in places with substantial seasonal work, such as agriculture. Additionally, there may sometimes be discrepancies in values reported such as when the number of hours children are reported to be working exceeds the total number of hours in a week, for example.

Monitoring and reporting

National

National Statistical Offices (for the most part) and line ministries/ other government agencies and International agencies that have conducted labour force surveys or other household surveys through which data on child labour were collected.

Global

Agencies: UNICEF and ILO

Process: UNICEF maintains the global database on child labour that is used for SDG and other official reporting. UNICEF HQ updates the database annually in collaboration with ILO and with Country Offices through the CRING process.

Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data, together with global and regional averages, are released annually both as part of State of the World's Children and on UNICEF's dedicated website for statistics (data. unicef.org). The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on 8.7.1, is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level are re-analyzed by UNICEF HQ if the nationally produced data are inconsistent with the standard definition of child labour.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/child-protection/child-labour/

- SDG metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-08-07-01.pdf

Tools and measurement guidance:

- MICS module on child labour: https://data.unicef.org/wp-content/uploads/2017/12/MICS6-Child-labour-module.pdf

- ILO SIMPOC guidance: http://www.ilo.org/ipec/ChildlabourstatisticsSIMPOC/lang--en/index.htm

Research:

- The Understanding Children's Work (UCW) Programme is an inter-agency research cooperation initiative involving the International Labour Organisation, UNICEF and the World Bank: http://www.ucw-project.org/

- Impact of Unpaid Household Services on the Measurement of Child Labour, MICS Methodological Papers, No. 2, Statistics and Monitoring Section, Division of Policy and Strategy, United Nations Children's Fund, New York, 2013: https://tinyurl.com/y7vafzvj

- How sensitive are estimates of working children and child labour to definitions? A comparative analysis, MICS Methodological Papers, No. 1, Statistics and Monitoring Section, Division of Policy and Strategy, UNICEF, New York, 2012: https://tinyurl.com/yc5gr6yx

UNICEF

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

TARGET 16.2

End abuse, exploitation, trafficking and all forms of violence against and torture of children

Target overview

SDG monitoring

SDG Target 16.2 is tracked by the following indicators:

- 16.2.1 Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month

- 16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation

- 16.2.3 Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18

This note focuses on the first and third indicators, which specifically concern children and for which UNICEF is the custodian agency.

Broader monitoring context

All children have the right to protection from all forms of violence inflicted on them by anyone in their lives. The right of children to protection from all forms of violence is enshrined in the Convention on the Rights of the Child (CRC) and its Optional Protocols. The multifaceted nature of violence against children makes measurement particularly challenging. Violence against children takes many forms, including physical, sexual and emotional abuse. It can occur in many settings, such as the home, school, community and over the Internet, and can be perpetrated by both adults – family members, teachers, neighbours and strangers – and also by other children.

Two of the indicators selected to monitor target 16.2 represent specific forms of violence against children: the most widespread (violent discipline) and one of the gravest (sexual violence). The availability of comparable data on caregivers' use of violent discipline has significantly increased in the past two decades, mainly through the inclusion of a module on disciplinary methods in international household surveys such as MICS. Although household surveys

such as DHS have been collecting data on sexual violence in low- and middle-income countries since the late 1990s, comparable, nationally representative data for this indicator are sparse, particularly for young men.

UNICEF role in monitoring

In UNICEF's Strategic Plan 2018-2021, children's protection from violence and exploitation is the dedicated focus of Goal Area 3.

UNICEF is the custodian agency for SDG indicators 16.2.1 and 16.2.3 and is undertaking a number of activities to improve the availability, quality, timeliness and use of data on violence against children that includes: developing tools for the collection of reliable, comprehensive and comparable data on various forms of violence against children within existing data collection efforts; developing a set of methodological and ethical guidelines for the collection of data on violence against children; building/enhancing country capacity to collect, analyze and use data on violence against children; and increasing data availability by promoting knowledge and through the provision of technical assistance for the collection, analysis and use of data on violence against children. As custodian agency for global reporting on two of the indicators under target 16.2, UNICEF is in the process of establishing a global inter-agency expert group (IAEG-VAC).

Target 16.2 is closely linked to Target 16.1, significantly reduce all forms of violence and related death rates everywhere. The following indicators are of particular interest to UNICEF, as they are to be broken down by age:

- 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

General information and resources

- UNICEF data: https://data.unicef.org/

- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org

- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the Child Protection and Development focal point at the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 16.2.1

Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month

Description

Definition and key terms

This indicator is currently being measured by the proportion of children aged 1-14 years who experienced any physical punishment and/or psychological aggression at home in the past month. The rationale for using a proxy indicator is because comparable data are currently only available for a subset of children aged 1-14 years.

SDG indicator:

Numerator: Number of children aged 1-17 years who have experienced any physical punishment and/or psychological aggression by caregivers in the past month

Denominator: Total number of children aged 1-17 in the population

Proxy indicator:

Numerator: Number of children aged 1-14 years who have experienced any physical punishment and/or psychological aggression at home in the past month

Denominator: Total number of children aged 1-14 in the population

Key terms:

The following definitions come from the Multiple Indicator Cluster Surveys (MICS) programme, the principal source of data for this indicator:

- Physical (or corporal) punishment is an action intended to cause physical pain or discomfort, but not injuries. Physical punishment is defined as shaking the child, hitting or slapping him/her on the hand/arm/leg, hitting him/her on the bottom or elsewhere on the body with a hard object, spanking or hitting him/her on the bottom with a bare hand, hitting or slapping him/her on the face, head or ears, and beating him/her over and over as hard as possible.

- Psychological aggression refers to the action of shouting, yelling or screaming at a child, as well as calling a child offensive names, such as 'dumb' or 'lazy'.

- The term "violent discipline" encompasses any physical punishment and/or psychological aggression.

National data sources

Household survey programmes such as MICS and DHS have been collecting data on this indicator in low- and middle-income countries since around 2005. In some countries, such data are also collected through other national household surveys.

MICS, the source of the majority of comparable estimates, collects these data through the inclusion of a module on disciplinary methods. The module, developed for use in MICS, is adapted from the parent-child version of the Conflict Tactics Scale (CTSPC)[1], a standardized and validated epidemiological measurement tool that is widely accepted and has been implemented in a large number of countries, including high-income countries. The module includes a standard set of questions covering non-violent forms of discipline, psychological aggression and physical means of punishing children. Data are collected for children ranging from age 1 to age 14. Some DHS have included the standard, or an adapted version of, the MICS module on child discipline.

Data collection innovation

UNICEF is currently undertaking work that will improve the availability, quality, timeliness and use of data on violence against children, including methodological work towards the development of a new set of survey modules on violence against children that can be included in existing data collection efforts, in support of monitoring of SDG target 16.2. In relation to 16.2.1 specifically, further work is needed to develop a measure of disciplinary methods that captures information relevant also for older adolescents between the ages of 15 and 17.

Using the indicator

Interpretation

This indicator captures current levels of violent discipline used at the household level with children. Specifically, it measures the use of a range of violent methods, both physical and psychological, to address behavior problems within the month preceding the interview, whether by the caregiver or any other adult in the household.

Standard measurement of this indicator does not capture who is administering the discipline or the frequency of use during the preceding month. Neither does it capture discipline methods that may be used by a non-adult sibling. Furthermore, it does not address the issue of physical punishment or psychological aggression by adults outside the home, such as teachers.

1 Straus, M. A., et al., 'Identification of Child Maltreatment with the Parent-Child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents', *Child Abuse & Neglect*, vol. 22, 1998, pp. 249– 270.

One might expect respondents to underreport the use of violent discipline with children in the household due to a social desirability bias; while this may occur, reported levels of the use of violent discipline are consistently high across countries, due to the fact that violent disciplinary methods are widely used and often condoned. It is also important to note that the respondent is reporting about the disciplinary methods used by all adult members of the household and not necessarily about the methods he/she used with the subject child.

For all countries, the recommended target for violent discipline is elimination (0%). National estimates that might be considered low can potentially mask persistent pockets of violent discipline within certain sub-populations.

Caution should be used when interpreting changes in violent discipline practices over time due to changes in the data collection methods. (See Common Pitfalls section below.)

Disaggregation

As a minimum, data should routinely be disaggregated by age and sex, which are key stratifiers for this indicator. Additionally, survey data often allow for disaggregation by other standard sociodemographic factors such as household wealth, place of residence, and geographic location. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by mother's level of education, ethnicity, religion, child functional difficulty and mother's functional difficulties.

Common pitfalls

Changes in data collection approaches over time mean that trend data must be interpreted with caution. There are two specific changes to consider:

- **Respondent to the Child Discipline module**: When it was first implemented in MICS3, the child discipline module was administered only to mothers/primary caregivers, who were asked whether any of the disciplinary methods covered in the module had been used by any member of the household during the month preceding the interview. In MICS4 and MICS5, the methodology was changed: Any adult household member, not just the mother or primary caregiver, could respond to the questions on child discipline. Beginning with MICS6, the module forms part of the separate questionnaires for children under age 5 and children aged 5-17 which is administered to mothers/ primary caregivers. This means that data on child discipline collected in MICS4 and MICS5 are not directly comparable with data collected in MICS3 and subsequent rounds beginning with MICS6 since there have been changes to the respondent across rounds.

- **Age range of children**: In the third and fourth rounds of MICS, the standard indicator referred to the percentage of children aged 2-14 years who experienced any form of violent discipline (physical punishment and/or psychological aggression) within the past month. Beginning with the fifth round of MICS (MICS5),

the age group covered was expanded to capture children's experiences with disciplinary practices between the ages of 1 and 14 years. Therefore, current data availability do not capture the full age range specified in the SDG indicator since data are not collected for adolescents aged 15-17 years.

Monitoring and reporting

National

National Statistical Offices (for the most part)

Global

Agencies: UNICEF

Process: UNICEF maintains the global database on violent discipline that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data, together with global and regional averages, are released annually both as part of State of the World's Children and on UNICEF's dedicated website for statistics (data. unicef.org). The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on 16.2.1, is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data and are not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/child-protection/violence/

Tools and measurement guidance:

- MICS surveys have a standardized module on child discipline, split into two components for asking about children of different ages:

  » Children under age 5: https://data.unicef.org/wp-content/uploads/2017/12/MICS6-Child-discipline-module-under-5.pdf

  » Children 5-17: https://data.unicef.org/wp-content/uploads/2017/12/MICS6-Child-discipline-module-5-17.pdf

INDICATOR 16.2.3

Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18

Description

Definition and key terms

Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18. This indicator is always reported on separately for women and men.

Numerator: Number of young women and men aged 18-29 years who report having experienced any sexual violence by age 18

Denominator: Total number of young women and men aged 18-29 years in the population

Key terms:

- 'Sexual violence' is often used as an umbrella term to cover all types of sexual victimization.[2] According to General Comment Number 13 on the Convention on the Rights of the Child, sexual violence against children 'comprises any sexual activities imposed by an adult on a child against which the child is entitled to protection by criminal law.'[3]

- 'Sexual violence' is operationally defined in the indicator as sexual intercourse or any other sexual acts that were forced, physically or in any other way.

This indicator captures all experiences of sexual violence that occurred during childhood (i.e. prior to the age of 18 years) irregardless of the legal age of consent stipulated in relevant national legislation.

National data sources

Household surveys such as DHS have been collecting data on this indicator in low- and middle-income countries since the late 1990s. The DHS includes a standard module that captures information on a few specific forms of sexual violence. Respondents are asked whether, at any time in their lives (as children or adults), anyone ever forced them – physically or in any other way – to have sexual intercourse or to perform any other sexual acts against their will. Those responding 'yes' to this question are then asked how old they were the first time this happened. It is important to flag that the DHS module was not specifically designed to capture experiences of sexual violence in childhood and further methodological work is needed to develop standard questions that can use used to capture child sexual abuse.

However, many data collection efforts have relied on different study methodologies and designs, definitions of sexual violence, samples and questions to elicit information. This has made the aggregation or comparison of data on sexual violence against children extremely difficult.

Data collection innovation

UNICEF is currently undertaking work that will improve the availability, quality, timeliness and use of data on violence against children, including methodological work towards the development of a new set of survey modules on violence against children that can be included in existing data collection efforts, in support of monitoring of SDG target 16.2.

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2 Interagency Working Group on Sexual Exploitation of Children, *Terminology Guidelines for the Protection of Children from Sexual Exploitation and Sexual Abuse*, ECPAT International and ECPAT Luxembourg, Rachathewi, Bangkok, June 2016, p. 16, open PDF from <www.unicef.org/protection/files/Terminology_guidelines_396922-E.pdf>.
3 This definition has been adapted from: United Nations Committee on the Rights of the Child, *General Comment No. 13 (2011): The right of the child to freedom from all forms of violence*, United Nations document CRC/C/GC/13, Office of the High Commissioner for Human Rights, Geneva, 18 April 2011.

Using the indicator

Interpretation

Experiences of sexual violence in childhood hinder all aspects of development: physical, psychological/emotional and social. Apart from the physical injuries that can result, researchers have consistently found that sexual abuse of children is associated with a wide array of mental health consequences and adverse behavioural outcomes in adulthood.[4] The psychological impact can be severe due to the intense shame, secrecy and stigma that tend to accompany it.[5]

There are several definitional components to this indicator that should be considered when using these data. First, this indicator is not constructed to measure "current" levels of sexual violence against children but rather is based on retrospective recall spanning a number of years preceding the survey. One implication of such a recall period is that the indicator is not sensitive to rapid changes over time. [Note, however, the advantages of asking adults about their experiences, including avoiding ethical issues pertaining to interviewing children and having the potential to capture a more accurate picture of sexual violence in childhood because the period of exposure has been completed (i.e., everyone in the reported age group has completed childhood).]

Another important definitional component of the indicator is the term "sexual violence". As noted above, existing data are often derived from methods based on differing definitions so it is essential to have a clear understanding of the data collection instrument when interpreting these data.

For all countries, the recommended target for sexual violence against children is elimination (0%). National estimates that might be considered low can potentially mask persistent pockets of sexual violence against children within certain sub-populations.

Disaggregation

Survey data often allow for disaggregation by some standard sociodemographic factors including age, household wealth, place of residence and geographic location. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by marital status, employment status, number of living children and education level.

4 Brown, J., et al., 'Child Abuse and Neglect: Specificity of effects on adolescent and young adult depression and suicidality', *Journal of the American Academy of Child and Adolescent Psychiatry*, vol. 38, no. 12, 1999, pp. 190–196; Dinwiddie, S., et al., 'Early Sexual Abuse and Lifetime Psychopathology: A co-twin-control study', *Psychological Medicine*, vol. 30, no. 1, 2000, pp. 41–52; Widom, Cathy Spatz, 'Childhood Victimization: Early adversity, later psychopathology', National Institute of Justice, Washington, D.C., 2000.
5 Pinheiro, Paulo Sérgio, *World Report on Violence against Children*, United Nations Secretary-General's Study on Violence against Children, United Nations, Geneva, 2006.

Common pitfalls

The availability of comparable data remains a serious challenge in this area as many data collection efforts have relied on different study methodologies and designs, definitions of sexual violence, samples and questions to elicit information. Data on the experiences of boys are particularly sparse. A further challenge in this field is underreporting, especially when it comes to reporting on experiences of sexual violence among boys and men.

Monitoring and reporting

National

National Statistical Offices (for the most part) or line ministries/ other government agencies that have conducted national surveys on violence against women and men.

Global

Agencies: UNICEF

Process: UNICEF maintains a global database on violence against young women and men that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on 16.2.3 by age 18, is typically released every year in May/June.

Discrepancies with national estimates: The estimates compiled and presented at global level come directly from nationally produced data. However, data are recalculated in order to obtain the standard age group for reporting (i.e., ages 18-29 years).

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/child-protection/violence/

Tools and measurement guidance:

- DHS domestic violence module: https://dhsprogram.com/pubs/pdf/DHSQMP/domestic_violence_module.pdf.pdf

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TARGET 16.9

By 2030, provide legal identity for all, including birth registration

Target overview

SDG monitoring

SDG target 16.9 is tracked by the following indicator

- 16.9.1: Proportion of children under 5 years of age whose births have been registered with a civil authority, by age.

Broader monitoring context

Birth registration is a first step towards safeguarding individual rights and providing every person with access to justice and social services. Thus, birth registration is not only a fundamental human right, but also key to ensuring the fulfillment of other rights.

Birth registration is also an essential part of a functioning civil registration system that produces vital statistics, which are essential for sound government planning and effective use of resources. In this way, Target 16.9 is linked to Targets 17.18 and 17.9, both of which concern statistical capacity building support to developing countries.

Most countries have mechanisms in place for registering births. However, coverage, the type of information obtained and the use of resulting data differ, based on a country's infrastructure, legal frameworks, administrative capacity, barriers to accessing services, availability of funds, accessibility to the population, and technology for data management. Levels of registration vary substantially across countries due to these and other factors, and the availability of data on birth registration is highly uneven across countries.

'Interoperability' with other services is a key strategy to improving birth registration. Making use of existing health service, education and social protection/welfare infrastructure enables greater access to hard-to-reach populations and the opportunity to reach the most vulnerable children who are also least likely to have their births registered. Linking these types of services with civil registration can ensure that people accessing them are also able to access birth registration.

UNICEF role in monitoring

In UNICEF's Strategic Plan 2018-2021, birth registration is included as an outcome indicator under Goal Area 3: Every child is protected from violence and exploitation. UNICEF is the global custodian for SDG indicator 16.9.1, and has been monitoring birth registration for many years. UNICEF supports countries to collect and report on these data through the MICS survey programme, which has played a leading role in strengthening birth registration data collection.

General information and resources

- UNICEF data: https://data.unicef.org/
- UNICEF Multiple Indicator Cluster Surveys (MICS): http://mics.unicef.org
- SDG indicators: https://unstats.un.org/sdgs/

For further information, please contact the Child Protection and Development focal point in the Data & Analytics Section at UNICEF HQ via: data@unicef.org

INDICATOR 16.9.1

Proportion of children under 5 years of age whose births have been registered with a civil authority, by age

Description

Definition and key terms

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 in the population

Key terms:

- Birth registration: Birth registration is defined as 'the continuous, permanent and universal recording, within the civil registry, of the occurrence and characteristics of births in accordance with the legal requirements of a country'.

- Birth certificate: A birth certificate is a vital record that documents the birth of a child. The term 'birth certificate' can refer either to the original document certifying the circumstances of the birth, or to a certified copy or representation of the registration of that birth, depending on the practices of the country issuing the certificate.

- Civil authority: Official authorized to register the occurrence of a vital event and to record the required details.

National data sources

Civil registration systems: Civil registration systems that are functioning effectively compile vital statistics that are used to compare the estimated total number of births in a country with the absolute number of registered births during a given period. These data normally refer to live births that were registered within a year or the legal time frame for registration applicable in the country.

Population-based surveys: In the absence of reliable administrative data, household surveys have become a key source of data to monitor levels and trends in birth registration. In most low- and middle-income countries, such surveys represent the sole source of this information. The standard indicator used in DHS and MICS to report on birth registration refers to the percentage of children under age 5 (0-59 months) with a birth certificate, regardless of whether or not it was seen by the interviewer, or whose birth was reported as registered with civil authorities at the time of survey. Depending on the country, surveys collecting these data may be conducted every 3-5 years, or possibly at more frequent intervals.

Censuses can also provide data on children who have acquired their right to a legal identity. However, censuses are conducted only every ten years and are therefore an inappropriate tool for routine monitoring.

Data collection innovation

Methodological work to test some additional questions on costs related to registration and reasons for not registering a child is currently ongoing.

Using the indicator

Interpretation

A name and nationality is every person's right, and obtaining this is typically accomplished through a formal process of registering a child's birth. Birth certificates are proof of registration and the first form of legal identity. Thus, the recommended target for birth registration is complete coverage (100%) given that anything below indicates some children are not registered. For example, in countries with high levels of birth registration, national prevalence levels can mask disparities within certain sub-populations (geographic, ethnic, religious, etc.).

Birth registration coverage can increase quickly if new initiatives or campaigns are implemented; for this reason, available data should be considered reflective of birth registration coverage at the time of the survey rather than the current situation.

When examining trends in birth registration, several important factors should be considered, including the number of data points available for each country, variations in the number of years between data points, and the magnitude of change. It is also important to consider the data collection method (i.e. the questionnaire design and implementation) which can affect findings across consecutive data collection rounds and thus comparability of the estimates.

From both a programmatic and policy perspective, identifying whether the proportion of children whose births are registered is lower in certain sub-populations is crucial to ensuring the most vulnerable children are not left behind.

Birth registration is also an essential component of CRVS (Civil Registration and Vital Statistics) and so levels of coverage are indicative of the functioning of the system.

Disaggregation

Standard background characteristics from household surveys include sex, single years of age, place of residence, geographic location, and household wealth. In addition to these standard levels of disaggregation, this indicator can be usefully disaggregated in some surveys by mother's level of education, ethnicity, religion, child functional difficulty and mother's functional difficulties. There is typically more potential to disaggregate survey data as opposed to statistics derived from administrative records.

Common pitfalls

Substantial differences can exist between CRVS coverage and birth registration levels as captured by household surveys. The differences are primarily because data from CRVS typically refer to the percentage of all births that have been registered (often within a specific timeframe) whereas household surveys often represent the percentage of children under age five whose births are registered. The latter (the level of registration among children under 5) is specified in the SDG indicator.

Data from household surveys like MICS or DHS sometimes refer only to children with a birth certificate. UNICEF methodically notes this difference when publishing country-level estimates for global monitoring.

One of the most common pitfalls with questionnaire design involves respondents' misunderstanding of the actual registration process. For example, respondents might be unaware of the specific authorities legally tasked with birth registration and might therefore misinterpret the act of notifying a church or village chief [of a birth] as formal registration. To address this ambiguity, household survey questionnaires are often customized to include reference to the specific national authority responsible for registration. Similarly, respondents might confuse a birth certificate with a health card or other document and thus inaccurately report children as registered. Despite attempts to resolve such issues, confusion about the process of birth registration might still exist and result in erroneous reporting.

Monitoring and reporting

National

National Statistical Offices (for the most part) and line ministries/other government agencies responsible for maintaining national vital registration systems

Global

Agencies: UNICEF

Process: UNICEF maintains the global database on birth registration that is used for SDG and other official reporting. UNICEF HQ updates the database annually through its collaboration with Country Offices, through the CRING process. Before the inclusion of any data point in the database, it is reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality. This review is based on a set of objective criteria to ensure that only the most recent and reliable information is included in the databases. UNICEF HQ also updates the database on a rolling basis throughout the year by searching for additional sources of data that are vetted by the COs before they are included in the global database.

Timing: New country level data, together with global and regional averages, are released annually both as part of State of the World's Children and on UNICEF's dedicated website for statistics (data. unicef.org). The Secretary-General's report on the SDGs, which includes latest available country, regional and global estimates on 16.9.1, is typically released every year in May/June.

Discrepancies with national estimates: Nationally produced data are not adjusted or recalculated.

Key resources

Indicator information and cross-country comparable estimates:

- UNICEF Data: https://data.unicef.org/topic/child-protection/birth-registration/
- SDG metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-16-09-01.pdf

Tools and measurement guidance:

- MICS: Questionnaire for children under five: http://mics.unicef.org/tools
- DHS: Household questionnaire: http://mics.unicef.org/tools