

Sustainable Development Goals (SDGs) 2025 Comprehensive Review – metadata template for additional or replacement¹ indicator proposals

The purpose of this template is to submit reference metadata for SDG indicator proposals. It uses the standard format for SDG indicator metadata to monitor the Goals and targets in a consistent manner. In order to ensure the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) thoroughly review the proposal, information is requested using this standard template. For reference, metadata for existing indicators can be found at <https://unstats.un.org/sdgs/metadata/>.

Please replace the instruction text shaded in **yellow** with the appropriate text describing the metadata concepts (i.e. definition and concepts, rationale, etc.). All fields must be filled. If the field is not applicable or still to be determined, please enter “not applicable” or “TBD”.

Please try to make your responses as concise as possible while making sure to include all relevant information. For more detailed methodological information, a link can be included in the reference section (7. References and Documentation).

Use only the metadata concepts/fields provided. Do not add additional fields. Use the detailed metadata concepts (preceded by a number and a letter e.g. “0.a”) where available and as feasible; otherwise use the main concepts (preceded by a number e.g. “0”). Descriptions of the fields are provided on page 7.

¹ For indicator revision/adjustment proposals, please make the revisions/adjustments in track change to the current indicator’s metadata file located at the metadata repository, <https://unstats.un.org/sdgs/metadata/>.

SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

0.b. Target (SDG_TARGET)

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 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

0.c. Indicator (SDG_INDICATOR)

Prevalence of minimum dietary diversity among children aged 6-23 months (MDD-C)

0.d. Series (SDG_SERIES_DESCR)

Addition

0.e. Metadata update (META_LAST_UPDATE)

2024-02-29

0.f. Related indicators (SDG_RELATED_INDICATORS)

Healthy diets are fundamental for achieving SDG 2 and a prerequisite for reaching many other SDGs including SDG 3 (ensuring healthy lives), playing a role in ending poverty (SDG 1), ensuring quality education (SDG 4), achieving gender equality (SDG 5), promoting economic growth (SDG 8), and reducing inequalities (SDG 10). Unhealthy diets are the leading cause of poor health and non-communicable disease worldwide and so minimum dietary diversity is also strongly linked to SDG target 3.4, which aims to reduce premature mortality from non-communicable diseases by one third by 2030.

0.g. International organisations(s) responsible for global monitoring

(SDG_CUSTODIAN_AGENCIES)

United Nations Children's Fund (UNICEF)

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

UNICEF

1.b. Contact person(s) (CONTACT_NAME)

1.c. Contact organisation unit (ORGANISATION_UNIT)

Data & Analytics, Division of Data, Analysis, Planning and Monitoring, UNICEF

1.d. Contact person function (CONTACT_FUNCT)

Senior Advisor, Monitoring and Statistics and Unit Chief, Nutrition Data, UNICEF
Statistics and Monitoring Specialist, UNICEF

1.e. Contact phone (CONTACT_PHONE)

NA

1.f. Contact mail (CONTACT_EMAIL)

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1.g. Contact mail (CONTACT_EMAIL)

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

- **Definition:**
- Percentage of children 6–23 months of age who consumed foods and beverages from at least five out of eight defined food groups during the previous day.
-
- **Concepts:**
- UNICEF and WHO have defined eight key food groups for infant and young children, which include: 1) breast milk; 2) flesh foods (meat, fish, poultry, and liver/organ meats; 3) dairy (milk, yogurts, cheese); 4) eggs; 5) legumes and nuts; 6) vitamin-A rich fruits and vegetables; 7) other fruits and vegetables; and 8) grains, roots, and tubers. Minimum dietary diversity is defined as the consumption of at least five out of the eight food groups. Consumption of any amount of food or beverage from a food group is sufficient to “count”, i.e., there is no minimum quantity.

2.b. Unit of measure (UNIT_MEASURE)

Proportion

2.c. Classifications (CLASS_SYSTEM)

NA

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

Population based nationally representative household surveys are the primary source of country level minimum dietary diversity data. Surveys assess minimum dietary diversity by collecting data on intake of breast milk and other foods and fluids for children under two years of age using a 24-hour recall of dietary intake as recommended in UNICEF-WHO guidance on “[Indicators for assessing infant and young child feeding practices](#)”.

3.b. Data collection method (COLL_METHOD)

For UNICEF, the cadre of dedicated data and monitoring specialists working at national, regional and international levels in 190 countries routinely provide technical support for the collection and analysis of nutrition data. Up until 2017, the consultative process UNICEF used to collate and review potential estimates to ensure adherence to standard definitions and data quality criteria was known as Country

Data Reporting on the Indicators for the Goals (CRING).² As of 2018, UNICEF launched a new system called “Country Reporting and Validation Exercise” (CRAVE) which adheres to many of the same principles as CRING, and which continues on an annual basis for future updates. The CRAVE process places strong emphasis on technical rigour, country ownership and use of official data and statistics. The consultative process is done in close collaboration with UNICEF country offices with the purpose of ensuring that UNICEF global databases contain updated and internationally comparable data. UNICEF country offices are invited to submit, through an online system, nationally representative data sources which contain key indicators on the well-being of women and children, including minimum dietary diversity. The country office staff work with local counterparts to ensure the most relevant data are shared. Updates sent by the country offices are then reviewed by sector specialists at UNICEF headquarters to check for consistency and overall data quality of the submitted estimates. This review is based on a set of objective criteria to ensure that only the most reliable information is included in the databases. Re-analysis according to standard definitions is also undertaken where possible. Once reviewed, feedback is made available on whether specific data points are accepted, and if not, the reasons why. Feedback is also provided to explain differences between country reported and UNICEF reanalysed estimates. UNICEF also relies on a data source catalogue that is regularly updated using data sources from catalogues of other international organizations and national statistics offices.

3.c. Data collection calendar (FREQ_COLL)

Data collection is carried out by UNICEF throughout the year.

3.d. Data release calendar (REL_CAL_POLICY)

UNICEF releases country, regional and worldwide estimates annually with the next release planned for March 2024.

3.e. Data providers (DATA_SOURCE)

The majority of the data sources used are nationally representative household surveys (e.g., Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and National Nutrition Surveys (NNS). Data providers vary and most commonly are ministries of health, national offices of statistics or national institutes of nutrition.

3.f. Data compilers (COMPILING_ORG)

UNICEF

3.g. Institutional mandate (INST_MANDATE)

UNICEF is responsible for global monitoring and reporting on the wellbeing of children. UNICEF actively supports countries in data collection and analysis for reporting on children’s diets primarily through high-quality MICS surveys, as well as providing technical and financial support to other surveys. UNICEF not only supports household surveys but also works with global partners to define technical standards for the collection and analysis of diet data. UNICEF also ensures the availability of internationally comparable

² For more on CRING, see Murray C, Newby H. Data resource profile: United Nations Children's Fund (UNICEF). *Int J Epidemiol.* 2012;41(6):1595-601.

estimates through its publicly available databases on infant and young child feeding. In-depth analyses of the data on children's diets, which are included in relevant data-driven publications, including in its flagship publication, *The State of the World's Children*, and the *Child Nutrition Report* are also conducted by UNICEF.

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

The [WHO guidelines for complementary feeding](#) recommends that infants and young children are fed a variety of foods to ensure their nutritional needs are met and to support healthy growth and development. This guideline provides global, normative evidence-based recommendations on complementary feeding of infants and young children 6–23 months of age living in low, middle- and high-income countries. Food group diversity is associated with improved linear growth in young children and a diet lacking in diversity can increase the risk of micronutrient deficiencies, which may have a damaging effect on children's physical and cognitive development. Consuming a diverse diet is also important for reasons beyond meeting nutritional requirements; young children who receive a diverse diet are exposed to different food tastes and textures.

4.b. Comment and limitations (REC_USE_LIM)

Minimum dietary diversity is a long-standing indicator (*first defined in 2008 and revised in 2017*) where time-series data already exist for many countries. As household surveys are the primary source of data on minimum dietary diversity, the estimates come with levels of uncertainty due to both sampling and non-sampling error (e.g. misclassification of food items in food groups, recording error etc.).

4.c. Method of computation (DATA_COMP)

This indicator is calculated in two steps. The first step is to construct a food group score summing the eight defined food groups. The eight defined food groups are:

1. breast milk;
2. grains, white/pale starchy roots, tubers and plantains;
3. beans, peas, lentils, nuts and seeds;
4. dairy products (milk, infant formula, yogurt, cheese);
5. flesh foods (meat, fish, poultry, organ meats);
6. eggs;
7. vitamin A-rich fruits and vegetables; and
8. other fruits and vegetables

Begin with a score of 0. For each of the 8 food groups, add one point if any food in the group was consumed.

The second step is to calculate as a percentage as follows:

$$\frac{\text{Child age in days} \geq 183 \text{ AND Child age in days} < 730 \text{ AND Food group score} \geq 5}{\text{Age in days} \geq 183 \text{ AND Age in days} < 730} \times 100$$

4.d. Validation (DATA_VALIDATION)

UNICEF reviews newly available data against a set of quality assessment criteria. These criteria include;

- National representativeness: Sufficient documentation should be available to assess sampling at various stages such as methodology to select primary sampling units, develop household listing

and selection of households. The documents should allow for determination of household and individual response rate.

- Minimum sample size: A minimum unweighted sample size of 25 is required for inclusion of estimates into UNICEF global databases.
- Plausible time trends: Country level data are reviewed for plausible time trends. In case of outliers UNICEF country offices are contacted to get additional information to explain available data/trends.
- Adherence to standard questions and calculations: Survey questionnaires are reviewed to confirm adherence to global guidance in terms of methods and questions used to assess minimum dietary diversity. Only estimates based on 24-hour recall of a standard list of liquids and food groups (with no major deletions) are allowed.

A consultation process similar to that done for other SDGs UNICEF is custodian for (e.g. see metadata description for indicator on stunting for SDG target 2.2) through the NSOs would be implemented if minimum dietary diversity were to become an SDG indicator.

4.e. Adjustments (ADJUSTMENT)

The indicator definition for minimum dietary diversity was revised in 2017. The previous indicator was based on a cut-off of four out of seven food groups. In 2017, breast milk was added as a separate food group, thereby increasing the total number of food groups to eight and increasing the cut-off to five groups. The indicator was revised because the previous indicator included infant formula but not breast milk, thereby conferring an advantage to formula-fed infants when counting food groups. As such, data sources published prior to the revision of the indicator in 2017 had to be re-analysed using the new indicator definition to obtain comparable estimates across time and location. When raw data were not available, data sources were not included in the global database.

4.f. Treatment of missing values (i) at country level and (ii) at regional level

(IMPUTATION)

- **At country level**

There is no imputation for countries with no data on minimum dietary diversity.

- **At regional and global levels**

There is no imputation for individual countries with missing data. Global and regional aggregates for this indicator are based on countries with available data.

4.g. Regional aggregations (REG_AGG)

Regional aggregates are calculated as population weighted averages of the prevalence of minimum dietary diversity in each country over a specific time-period, using the population by single age (age 6-23 months i.e. sum of half of age 0 and age 1) from the United Nations Population Division World Population Prospects as weights.

Regional aggregates are available for the following classifications: UN, SDG, UNICEF, WHO, The World Bank income groups. As a rule, regional aggregates are only displayed if available data represents at least 50 percent of the region's population

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

Methods and analysis:

[Indicators for assessing infant and young child feeding practices: Definitions and measurement methods](#)
[Reconsidering, refining, and extending the World Health Organization infant and young child feeding indicators](#)

4.i. Quality management (QUALITY_MGMNT)

UNICEF is responsible for management of the processes used to develop regular updates of the country-level database of surveys used to generate the regional and global aggregation of data on minimum dietary diversity. UNICEF secures microdata for re-analysis according to the standard method through regular communication with regional and country teams. UNICEF also collaborates with global partners and leads the Technical Advisory Group for UNICEF's global database on Infant and Young Child feeding to review and improve methods as needed. Additionally, a Technical Expert Advisory Group on Nutrition Monitoring (TEAM), jointly established by UNICEF and WHO, provides advice on nutrition monitoring methods and processes, including on infant and young child feeding.

4.j Quality assurance (QUALITY_ASSURE)

UNICEF provides support to countries which undertake Multiple Indicator Cluster Surveys (MICS). The MICS are an important source of data on minimum dietary diversity. Questionnaires are designed and customized by the MICS country team, then reviewed by the regional office, followed by a review by sector data specialists at headquarters level to verify that they follow global guidance. These reviews help to ensure that the country customization did not change the basic structure or content of the questionnaires in relation to standard indicator definitions and also aim to support development of an appropriate locally relevant food and liquid list with items correctly categorized in their respective food groups.

UNICEF also provides support, as outlined above for MICS, when a country conducting non-MICS surveys contact us for technical guidance when planning the DHS or NNS.

The quality criteria outlined above in section 4.d. are used to update a standard template that UNICEF has developed to review primary data sources for minimum dietary diversity. The review form is used to abstract key information including methodological details (e.g., sampling procedures, response rates, questions about food and fluids, flagging misclassified food items). One person fills in the review form for each data source and when information is missing or further details are required, the country teams are contacted. Once all information is available and the primary data source review form is completed, each data source is discussed within a team comprising of UNICEF colleagues working on nutrition data and programs. This allows for a thorough and efficient standard joint review of each data source by specialists.

4.k Quality assessment (QUALITY_ASSMNT)

Data consistency and quality checks described above are conducted for each potential primary data source (e.g., household survey) before inclusion in the database that are used to generate regional and global data on minimum dietary diversity. UNICEF collaborates with its regional and country offices throughout the year to ensure all recent and relevant data are included in the country-level database.

5. Data availability and disaggregation (COVERAGE)

Data availability:

Minimum dietary diversity data for children are available for 110 countries.

Time series:

Country level data for minimum dietary diversity is available from 2005 onwards and is updated annually to ensure most recent data are reflected in the database.

Disaggregation:

Disaggregated country level data are available by sex of child, place of residence (urban, rural), wealth status of household, age of child (6-11, 12-15, 16-19, 20-23 months), maternal education and administrative/geographic regions.

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:

The standard analysis approach to construct the database aims for a maximum comparability of country estimates. For the inclusion of estimates into the database, quality assessment criteria described above are applied. When there is insufficient documentation, the source is not included until information becomes available and clears quality criteria. Further as the indicator definition for minimum dietary diversity was revised in 2017, data sources release prior to the revision were re-analysed to conform to the new indicator definition. When raw data were not available for re-analysis, those sources were not included in the country-level database.

There may be a discrepancy between country reported estimates and the global database for minimum dietary diversity given a difference in the treatment of the response “Don’t Know/Missing” to questions about foods, liquids or breastfeeding status; handling of customised food groups or data being based on pre-2017 (old) indicator definition. Re-analysis of data for the country-level database on minimum dietary diversity is aligned with the global guidance and thus, ensures comparability over time and across countries.

7. References and Documentation (OTHER_DOC)

URL:

<https://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>

References:

Indicators for assessing infant and young child feeding practices: definitions and measurement methods. Geneva: World Health Organization and the (UNICEF), 2021. Licence: CC BYNC-SA 3.0 IGO; <https://creativecommons.org/licenses/by-nc-sa/3.0/igo>.

WHO Guideline for complementary feeding of infants and young children 6–23 months of age. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO.

Meeting Report on reconsidering, refining and extending the WHO Infant and Young Child Feeding Indicators. United Nations Children's Fund (UNICEF) and the World Health Organization and the (UNICEF). <https://data.unicef.org/resources/meeting-report-infant-young-child-feeding-indicators/>

SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

0.b. Target (SDG_TARGET)

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 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

0.c. Indicator (SDG_INDICATOR)

Prevalence of minimum dietary diversity among non-pregnant women aged 15-49 years (MDD-W)

0.d. Series (SDG_SERIES_DESCR)

Addition

0.e. Metadata update (META_LAST_UPDATE)

2024-04-10

0.f. Related indicators (SDG_RELATED_INDICATORS)

Healthy diets are fundamental for achieving SDG 2 and a prerequisite for reaching many other SDGs including SDG 3 (ensuring healthy lives), playing a role in ending poverty (SDG 1), ensuring quality education (SDG 4), achieving gender equality (SDG 5), promoting economic growth (SDG 8), and reducing inequalities (SDG 10). Unhealthy diets are the leading cause of poor health and non-communicable disease worldwide and so minimum dietary diversity is also strongly linked to SDG target 3.4, which aims to reduce premature mortality from non-communicable diseases by one third by 2030.

0.g. International organisations(s) responsible for global monitoring

(SDG_CUSTODIAN_AGENCIES)

Food and Agriculture Organization of the United Nations (FAO)

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

FAO

1.b. Contact person(s) (CONTACT_NAME)

Bridget Holmes, Giles Hanley-Cook

1.c. Contact organisation unit (ORGANISATION_UNIT)

Food and Nutrition Division (ESN), FAO

1.d. Contact person function (CONTACT_FUNCT)

Nutrition and Food Systems Officer/Nutrition Assessment Team Leader, ESN, FAO

Nutrition Statistics Specialist, ESN, FAO

1.e. Contact phone (CONTACT_PHONE)

NA

1.f. Contact mail (CONTACT_MAIL)

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2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition:

Percentage of non-pregnant women aged 15-49 years who consumed foods or beverages from at least five out of ten defined food groups during the preceding 24 hours.

Concepts:

- **Dietary diversity:** Minimum Dietary Diversity for Women (MDD-W) is a population-level food group-based indicator that captures dietary diversity, a key component of healthy diets.
- **Food groups:** FAO has defined ten mutually exclusive food groups (1). See section 4.c. for the food group descriptions.
- **Dichotomous indicator:** Achieving MDD-W is defined as the consumption of at least five out of ten food groups.
- **Nutrient adequacy:** MDD-W has been validated as an indicator for a minimally acceptable level of dietary adequacy for 11 micronutrients (2–4). Achievement of MDD-W therefore signals better micronutrient intake.
- **Non-quantitative:** No data is collected on intake quantities during the questionnaire administration; a simple yes/no response is recorded as to whether a food group was consumed. However, food items usually consumed in trivial quantities (under 15 grams) are excluded from the food list in the questionnaire.

2.b. Unit of measure (UNIT_MEASURE)

Proportion

2.c. Classifications (CLASS_SYSTEM)

NA

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

Population-based nationally representative household surveys, such as the Demographic and Health Surveys (DHS) and the Gallup World Poll (GWP), are the primary source of country-level MDD-W data.

3.b. Data collection method (COLL_METHOD)

Surveys assess MDD-W by collecting data on the intake of food groups among non-pregnant women aged 15-49 years through a face-to-face, interview administered non-quantitative food list-based 24-hour recall of dietary intake as recommended by FAO in [“MDD-W: An updated guide to measurement - from collection to action.”](#)

Below, an example MDD-W questionnaire from the Tanzania DHS 2022. All country-specific DHS questionnaires can be found on the [DHS Program](#) website. All country-specific GWP questionnaires can be found on the [Global Diet Quality Project](#) website.

For the DHS, MDD-W data are collected among 10,000 to 40,000 non-pregnant women. The response rate among women aged 15-49 years was 95% or higher for all available DHS. For the GWP, MDD-W data are collected among approximately 1,000 non-pregnant women in each country.

Nationally representative data have been collected at various times of the year/seasons between countries. However, to ensure the comparability of MDD-W estimates within countries and to mitigate biased inferences of change over time, FAO recommends that repeated surveys carry out data collection in the same time period as the previous survey (5).

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES			
643	<p>Now I'd like to ask you about foods and drinks that you consumed yesterday during the day or night, whether you ate or drank it at home or somewhere else. Please think about snacks and small meals as well as main meals.</p> <p>I will ask you about different foods and drinks, and I would like to know whether you ate a food even if it was combined with other foods.</p> <p>Please do not answer 'yes' for any food or ingredient only used in a small amount to add flavor to a dish.</p> <p>a) Ugali, porridge, rice, pasta, bread, chapati, kitumbua, or maize?</p>		<p style="text-align: center;">YES</p>	<p style="text-align: center;">NO</p>	<p style="text-align: center;">DK</p>
	b) Orange flesh sweet potato or carrots?	b)	1	2	8
	c) Cassava, cassava ugali, makopa, green banana, Irish potato, white-flesh sweet potato?	c)	1	2	8
	d1) Chinese cabbage, cabbage, amaranth leaves, cowpea leaves, or cassava leaves?	d)	1	2	8
	d2) Nightshade leaves, spider flower, jute mallow, sweet potato leaves, or pumpkin leaves?	d)	1	2	8
	e) Any other vegetables such as, cabbage, tomato, African eggplant, eggplant, sweet pepper,	e)	1	2	8

f) Mango, papaya, or passionfruit?	f)	1	2	8
g1) Any other fruits such as, bananas, lemons, tangerines, pineapple, avocado, or grapes?	g)	1	2	8
g2) Pear, apple, watermelon, baobab, guava, or jackfruit?	g)	1	2	8
h) Liver, kidney, intestine, heart, or gizzard?	h)	1	2	8
i) Sausages or canned meat?	i)	1	2	8
j) Any other meat, such as beef, mutton, goat, or	j)	1	2	8
k) Eggs?	k)	1	2	8
l) Fresh fish, dried small fish, dried small tilapia, seafood, shrimp, or octopus?	l)	1	2	8
m) Beans, green peas, green gram, cowpeas, pigeon peas, peanut, groundnuts or makande?	m)	1	2	8
n) Pumpkin seeds, kashata, cashews, peanuts, or peanut paste?	n)	1	2	8

3.c. Data collection calendar (FREQ_COLL)

The data collection calendar varies according to the source of the data. Data collection through the DHS is carried out approximately every five years for over 90 countries, while GWP and other data collection efforts are currently on an ad-hoc basis, also for over 90 countries.

The DHS Program is expected to collect and release nationally representative MDD-W estimates for ten additional UN Member States in 2024. The Global Diet Quality Project is expected to collect and release nationally representative MDD-W estimates from the GWP for an additional seven UN Member States in 2024.

Data from the above sources on MDD-W are continuously collated and compiled from survey reports and data collection platforms.

3.d. Data release calendar (REL_CAL_POLICY)

There is currently no fixed date in which new rounds of MDD-W estimates will be released; however, estimates are expected to be generated every three to five years, depending on the cadence of data collection.

3.e. Data providers (DATA_SOURCE)

MDD-W estimates from the DHS are jointly published by ICF and ministries of health and/or national statistics offices.

MDD-W estimates from the GWP are published by the Global Diet Quality Project.

3.f. Data compilers (COMPILING_ORG)

- [At country level](#)

DHS Program and Global Diet Quality Project

- [At regional and global levels](#)

FAO

3.g. Institutional mandate (INST_MANDATE)

FAO's mandate is to improve nutrition, increase agricultural productivity, raise the standard of living in rural populations and contribute to global economic growth. Therefore, FAO's work on the collection, collation, and harmonization of statistical information on food and diet represents a core element of the Organization's mandate. As stated in Article I of the Constitution of FAO, "The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture." Hence, from its inception, FAO has strived to maintain the best possible capacity to collect, process, validate, harmonize, and analyse incoming data and generate accurate and timely information. Improving the quality, transparency, and access to FAO's statistical data is an important priority.

Furthermore, FAO's Strategic Framework 2022-31 seeks to support the 2030 Agenda through the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment, and a better life, leaving no one behind. Under the pillar of "better nutrition," FAO's mission is to end hunger, achieve food security and improved nutrition in all its forms, including promoting nutritious food and increasing access to healthy diets. In-depth analyses of MDD-W have previously been included in flagship publications, such as *The State of Food Security and Nutrition in the World* (6).

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

Dietary diversity is a fundamental pillar of a healthy diet. No single food or food group provides the multitude of nutrients and other bioactive compounds necessary for optimal nutrition, growth, and long-term health. Eating a wide variety of foods therefore increases the likelihood that a diet will provide all the nutrients required by an individual. Diets that lack diversity increase the risk of micronutrient deficiencies, particularly for women who have relatively higher nutrient requirements, which can compromise health. Dietary diversity is therefore a long-standing public health principle widely advocated in food-based dietary guidelines (7), the World Health Organization's (WHO) '[Healthy Diet](#)' fact sheet, FAO and WHO's guiding principles for '[Sustainable healthy diets](#)', and UNICEF's '[Conceptual Framework on Maternal and Child Nutrition](#)'.

While quantitative dietary assessment methods provide the best measure of the healthfulness of diets, these are often labour-intensive, costly and require significant capacity to carry out. As a result, they are

not routinely carried out in most countries. The MDD-W questionnaire was developed in response to a need for a quick, low-cost method that captures some information of the healthfulness of diets. It also responded to the need for as an easy-to-understand indicator for advocacy and decision-making purposes, i.e. the percentage of women meeting a minimally acceptable dietary diversity.

The basic interpretation of MDD-W is: “X% of women achieved minimum dietary diversity, and they are more likely to have higher (more adequate) micronutrient intakes than the X% of women who did not.” MDD-W should not be interpreted as an indicator of overall diet quality, or of individual dietary diversity. There is no universal cut-off that denotes levels of severity or acceptability of MDD-W prevalence. Since 2016, FAO has provided guidance on how to collect, analyse, present, and interpret MDD-W data. The latest FAO guidance [‘Minimum Dietary Diversity for Women: An updated guide to measurement - from collection to action’](#) was published in 2021.

4.b. Comment and limitations (REC_USE_LIM)

As household surveys are the primary source of data on MDD-W, the estimates come with levels of uncertainty due to both sampling and non-sampling error (e.g., potential omission or intrusion of food item examples on food lists, recall biases).

4.c. Method of computation (DATA_COMP)

The MDD-W indicator is calculated in two steps. The first step is to construct a food group diversity score summing the ten defined food groups. The ten defined food groups are:

- 1) Grains, white roots and tubers, and plantains;
- 2) Pulses (beans, peas and lentils);
- 3) Nuts and seeds;
- 4) Milk and milk products;
- 5) Meat, poultry, and fish;
- 6) Eggs;
- 7) Dark green leafy vegetables;
- 8) Other vitamin A-rich fruits and vegetables;
- 9) Other vegetables; and
- 10) Other fruits.

Each individual begins with a score of 0. For each of the ten food groups, add one point if any of the foods or beverages included as an example under the food group was consumed.

The second step is to calculate the MDD-W prevalence as follows:

$$\frac{\text{Woman age in years } \geq 15 \text{ AND woman age in years } < 50 \text{ AND food group diversity score } \geq 5}{\text{Woman age in years } \geq 15 \text{ AND woman age in years } < 50} \times 100$$

4.d. Validation (DATA_VALIDATION)

FAO reviews newly available data against a set of quality assessment criteria. These criteria include:

- National representativeness: Sufficient documentation should be available to assess sampling at various stages such as methodology to select primary sampling units, develop household listing and selection of households. The documents should allow for determination of household and individual response rate.
- Plausible time trends: Country level data are reviewed for plausible time trends. In case of outliers FAO country offices are contacted to get additional information to explain available data/trends.
- Adherence to standard questions and calculations: Survey questionnaires are reviewed to confirm adherence to global guidance in terms of methods and questions used to assess MDD-W. Only estimates based on non-quantitative 24-hour recall of a standard list of foods and beverages (with no major omissions or intrusions) are allowed.

4.e. Adjustments (ADJUSTMENT)

NA

4.f. Treatment of missing values (i) at country level and (ii) at regional level

(IMPUTATION)

- [At country level](#)

There is no imputation for countries with no data for MDD-W.

- [At regional and global levels](#)

There is no imputation for individual countries with missing data. Global and regional aggregates for this indicator are based on countries with available data.

4.g. Regional aggregations (REG_AGG)

Regional aggregates are calculated as population weighted averages of the prevalence of MDD-W in each country over a specific time-period, using the population by single age (15-49 years, i.e. sum of ages 15 through 49) from the United Nations Population Division World Population Prospects as weights.

Regional aggregates are available for the following classifications: UN (M49), SDG, and The World Bank income groups. As a rule, regional aggregates are only displayed if available data represents at least 50 percent of the region's population.

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

[Minimum Dietary Diversity for Women: An updated guide to measurement - from collection to action](#)

[Minimum Dietary Diversity for Women: Frequently Asked Questions](#)

[Minimum Dietary Diversity for Women: eLearning course](#)

4.i. Quality management (QUALITY_MGMNT)

FAO is responsible for publishing nationally representative estimates of MDD-W from non-quantitative dietary surveys through the Food and Diet Domain on [FAOSTAT](#). For this purpose, FAO reanalyses DHS microdata on food group intake according to the standard FAO methodology and cross-checks MDD-W statistics against DHS final country reports. FAO collaborates with DHS to clarify and resolve any potential

discrepancies. Furthermore, FAO collaborates with the Global Diet Quality Project to develop and review country-specific food lists to facilitate accurate MDD-W estimates.

4.j Quality assurance (QUALITY_ASSURE)

FAO review key information from primary data sources including methodological survey details (e.g., sampling framework, exclusion areas, MDD-W questionnaire), data quality outputs (e.g., response rates, missing data), and the and the MDD-W prevalence estimates from each primary data source (e.g., household survey) under review. When information is missing or further details are required, the country-level data compilers (i.e., DHS and global Diet Quality Project) are contacted.

4.k Quality assessment (QUALITY_ASSMNT)

Data consistency and quality checks described above are conducted for each potential primary data source before inclusion in the database that are used to generate regional and global data on MDD-W. FAO collaborates with its regional and country offices throughout the year to ensure all recent and relevant data are included in the country-level database.

5. Data availability and disaggregation (COVERAGE)

Data availability:

Minimum dietary diversity data for non-pregnant women aged 15-49 years are available for over 30 countries in Africa (001), 15 countries in the Americas (019), over 20 countries in Asia (142), and 6 countries in Europe (151).

Time series:

Country level data for minimum dietary diversity is available from 2017 onwards and is updated annually to ensure most recent data are reflected in the database.

Disaggregation:

Disaggregated country level data are usually available for the Demographic and Healthy Surveys by age of woman (15-19, 20-29, 30-39, 40-49 years), area of residence (rural, urban), administrative regions (e.g., zone, province, region), level of woman's education, and wealth quintile. For the Gallup World Poll, data are disaggregated by area of residence (rural, urban).

6. Comparability / deviation from international standards (COMPARABILITY)

NA

7. References and Documentation (OTHER_DOC)

1. Food and Agriculture Organization of the United Nations. Minimum Dietary Diversity for Women. An updated guide for measurement: from collection to action. Rome: FAO; 2021. 158 p.
2. Martin-Prevel Y, Arimond M, Allemand P, Wiesmann D, Ballard TJ, Deitchler M, et al. Development of a Dichotomous Indicator for Population-Level Assessment of Dietary Diversity in Women of Reproductive Age. *Curr Dev Nutr* [Internet].

2017;1(12):cdn.117.001701. Available from:
<http://cdn.nutrition.org/lookup/doi/10.3945/cdn.117.001701>

3. Verger EO, Eymard-Duvernay S, Bahya-Batinda D, Hanley-Cook GT, Argaw A, Becquey E, et al. Defining a Dichotomous Indicator for Population-Level Assessment of Dietary Diversity Among Pregnant Adolescent Girls and Women: A Secondary Analysis of Quantitative 24-h Recalls from Rural Settings in Bangladesh, Burkina Faso, India, and Nepal. *Curr Dev Nutr*. 2024;8(1).
4. Hanley-Cook GT, Hoogerwerf S, Parraguez JP, Gie SM, Holmes BA. Minimum dietary diversity for adolescents: Multi-country analysis to define food group thresholds predicting micronutrient adequacy among girls and boys aged 10-19 years. *Curr Dev Nutr* [Internet]. 2024;8(3):102097. Available from: <https://doi.org/10.1016/j.cdnut.2024.102097>
5. Hanley-Cook G, Argaw A, de Kok B, Toe LC, Dailey-Chwalibóg T, Ouédraogo M, et al. Seasonality and Day-to-Day Variability of Dietary Diversity: Longitudinal Study of Pregnant Women Enrolled in a Randomized Controlled Efficacy Trial in Rural Burkina Faso. *J Nutr*. 2022;152(9):2145–54.
6. FAO, IFAD, UNICEF, WFP, WHO. *The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets*. Rome, Italy; 2020.
7. Herforth A, Arimond M, Álvarez-Sánchez C, Coates J, Christianson K, Muehlhoff E. A Global Review of Food-Based Dietary Guidelines. *Adv Nutr*. 2019;10(4):590–605.

Definitions of Metadata Concepts

0.a. Goal: SDG Goal number and name.

0.b. Target: SDG Target number and name.

0.c. Indicator: SDG Indicator number and name.

0.d. Series: Codes and descriptions of all series to which the metadata set applies.

0.e. Metadata update: The date when this metadata report was last updated.

0.f. Related indicators: Linkages with any other Goals and Targets.

0.g. International organisation(s) responsible for global monitoring: (also known as *custodian agency(ies)*) Global reporting: International organizations (departments/offices) responsible for monitoring this indicator at the global level. Country reporting: This concept has no national counterpart.

1.a. Organisation: Organisation unit information of the contact points for the data or metadata.

1.d. Contact person function: Functional title(s) of the contact points for the data or metadata.

1.e. Contact phone: Phone number(s) of the contact points for the data or metadata.

1.f. Contact mail: Mailing address(es) of the contact points for the data or metadata.

1.g. Contact emails: E-mail address(es) of the contact points for the data or metadata.

2.a. Definition and concepts: Precise definition of the indicator preferably relying on internationally agreed definitions. The indicator definition should be unambiguous and be expressed in universally applicable terms. Precise definition of all different concepts and terms associated with the indicator, also including reference to any associated classifications.

2.b. Unit of measure: Description of the unit of measurement (proportion, dollars, number of people, etc.)

2.c. Classifications: Describe references to both national and international standards and classification being used. [Information to be provided where applicable.]

3.a. Data sources: Description of all actual and recommended sources of data. This description should include, when applicable, any changes of the data source over time, details of denominator (if from a different source) and any other relevant information related to the origin of the source or indicator. Similar details should be given for administrative sources.

3.b. Data collection method: Description of all methods used for data collection. This description should include, when applicable, the sample frame used, the questions used to collect the data, the type of interview, the dates/duration of fieldwork, the sample size and the response rate. Some additional information on questionnaire design and testing, interviewer training, methods used to monitor non-response etc. should be provided here. Questionnaires used should be annexed (if very long: via hyperlink).

3.c. Data collection calendar: Dates when source collection is next planned.

3.d. Data release calendar: Expected dates of release of new data for this indicator, including the year (or, ideally, the quarter/month when the next data point associated with the indicator will become available).

3.e. Data providers: Identification of national and/or international data provider(s), specifying the organization(s) responsible for producing the data.

3.f. Data compilers: Organization(s) responsible for compilation of this indicator either at national or global level.

3.g. Institutional mandate: Description of the set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics for this indicator.

4.a. Rationale: Description of the purpose and rationale behind the indicator, as well as examples and guidance on its correct interpretation and meaning.

4.b. Comment and limitations: Comments on the feasibility, suitability, relevance and limitations of the indicator. Also includes data comparability issues, presence of wide confidence intervals (such as for maternal mortality ratios); provides further details on additional non-official indicators commonly used together with the indicator.

4.c. Method of computation: Explanation of how the indicator is calculated, including mathematical formulas and descriptive information of computations made on the source data to produce the indicator (including adjustments and weighting). This explanation should also highlight cases in which mixed sources are used or where the calculation has changed over time (i.e., discontinuities in the series).

4.d. Validation: Description of process of monitoring the results of data compilation and ensuring the quality of the statistical results, including consultation process with countries on the national data submitted to the SDGs Indicators Database. Descriptions and links to all relevant reference materials should be provided.

4.e. Adjustments: Global reporting: Description of any adjustments with respect to use of standard classifications and harmonization of breakdowns for age group and other dimensions, or adjustments made for compliance with specific international or national definitions. National reporting: This concept is typically not applicable for national reporting.

4.f. Treatment of missing values (i) at country level and (ii) at regional level: Global reporting: (National level) Description of the methodology employed for producing estimates for the indicator when country data are not available, including any mathematical formulas and description of additional variables used as input into the estimation process. (Regional level) Description of how missing values for individual countries or areas are imputed or otherwise estimated by international agencies to derive regional or global aggregates of the indicator. National reporting: This concept is not applicable for national reporting.

4.g. Regional aggregations: Global reporting: Description of the methodology, including any mathematical formulas, used for the calculation of the regional/global aggregates from the country values. Description of the weighting structure used for aggregating country indicator values to regional and global levels. Additional methodological details on how the data from countries or areas is assembled by custodian international agencies to provide regional and global aggregates. This is distinct from the method of computation, which looks at how the indicator is compiled at a national level. National reporting: This concept is not applicable for national reporting.

4.h. Methods and guidance available to countries for the compilation of the data at the national level: Global reporting: Description of methodology used by countries for the compilation of data at national level and the relevant international recommendations and guidelines available to countries. Descriptions and links to all relevant reference materials should be provided. National reporting: For national reporting a country may refer to the globally available metadata and explain how it is being used.

4.i. Quality management: Description of systems and frameworks in place within an organisation to manage the quality of statistical products and processes.

4.j Quality assurance: Description of practices and guidelines focusing on quality in general and dealing with quality of statistical programmes at your agency, including measures for ensuring the efficient use of resources.

4.k Quality assessment: Description of overall evaluation of fulfilling quality requirements, based on standard quality criteria.

5. Data availability and disaggregation: Global reporting: Indicate for how many countries the data for this indicator are already currently available on a regular basis. Data availability by regional breakdowns and time periods can also be described here. Describe the specification of the dimensions and levels used for disaggregation of the indicator (e.g., income, sex, age group, geographic location, disability status, etc.). National reporting: Data availability by sub-national breakdowns and time periods can be described here. Describe the specification of the dimensions and levels used for disaggregation of the indicator (e.g., income, sex, age group, geographic location, disability status, etc.).

6. Comparability / Deviation from international standards: Explanation on the differences between country produced and internationally estimated data on this indicator, highlighting and summarising the main sources of differences.

7. References and Documentation: Descriptions and links to all relevant reference materials related to this indicator.