Indicator 2.2.4

Indicator Name, Target and Goal

Indicator 2.2.4 Prevalence of minimum dietary diversity, by population group (children aged 6 to 23.9 months and nonpregnant women aged 15 to 49 years)

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 person

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

Definition and Rationale

○ Definition

Percentage of those with minimum dietary diversity, who consumed foods or beverages from at least five out of ten defined food groups during a day, among non-pregnant women aged 15-49 years.

○ Concepts

Dietary diversity: Minimum Dietary Diversity for Women (MDD-W) is a population-level food group-based indicator that captures dietary diversity, a key characteristic of healthy diets.

Food groups: FAO has defined ten mutually exclusive food groups:

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.

Non-quantitative: By definition, no data is required on intake quantities in calculating MDD-W; information is needed as to whether any foods or beverages

from a food group was consumed.

○　Rationale and Interpretation:

　　Dietary diversity is a fundamental characteristic of healthy diets. 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, 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'.

　　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 100-X% of women who did not." MDD-W should not be interpreted as an indicator of overall diet quality, or of individual-level 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.

Data Sources and Collection Method

Secondary analysis of the National Health and Nutrition Survey, Japan

https://www.mhlw.go.jp/bunya/kenkou/kenkou_eiyou_chousa.html

Method of Computation and Other Methodological Considerations

○　Computation Method

　　The MDD-W indicator is calculated in two steps.

　　The first step is to construct a food group diversity score for individuals by summing scores based on the consumption of 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 in the food group was consumed.

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

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

In the National Health and Nutrition Survey, a one-day semi-weighed dietary record is used for estimating individual dietary intake, and intake of each food item is assessed. For calculation of the food group diversity score, each food item is classified into the ten food groups listed above with unclassifiable items excluded. A food group was considered "consumed" when any food from that group is confirmed.

○   Comments and limitations

The indicator is calculated using data of the National Health and Nutrition Survey which is conducted in certain unit blocks stratified and randomly selected from the unit blocks of the Comprehensive Survey of Living Conditions.

The survey data is limited to women aged 15–49 years who responded to the dietary survey of the National Health and Nutrition Survey. It should be noted that the study population differs by survey year and that the number of eligible participants is limited.

In the National Health and Nutrition Survey, food intake is quantitatively assessed using a semi-weighed dietary record method. For the calculation of this indicator, consumption is considered to have occurred when an intake amount for each food group was recorded. Therefore, this approach differs from the method proposed by the FAO, which determines consumption based on a questionnaire assessing whether each of the ten food groups was consumed. Validity should be examined to determine whether this method is appropriate for estimating MDD-W for the population.

Data Disaggregation

None

References

The National Health and Nutrition Survey, Japan

https://www.mhlw.go.jp/bunya/kenkou/kenkou_eiyou_chousa.html

Custodian Ministries of Data

Ministry of Health, Labour and Welfare

Custodian Ministries of Related Policies

Children and Families Agency

Ministry of Health, Labour and Welfare

International Organizations

United Nations Children's Fund (UNICEF)

Food and Agriculture Organization of the United Nations (FAO)