



FOOD AND NUTRITION SECURITY SITUATION ANALYSIS:

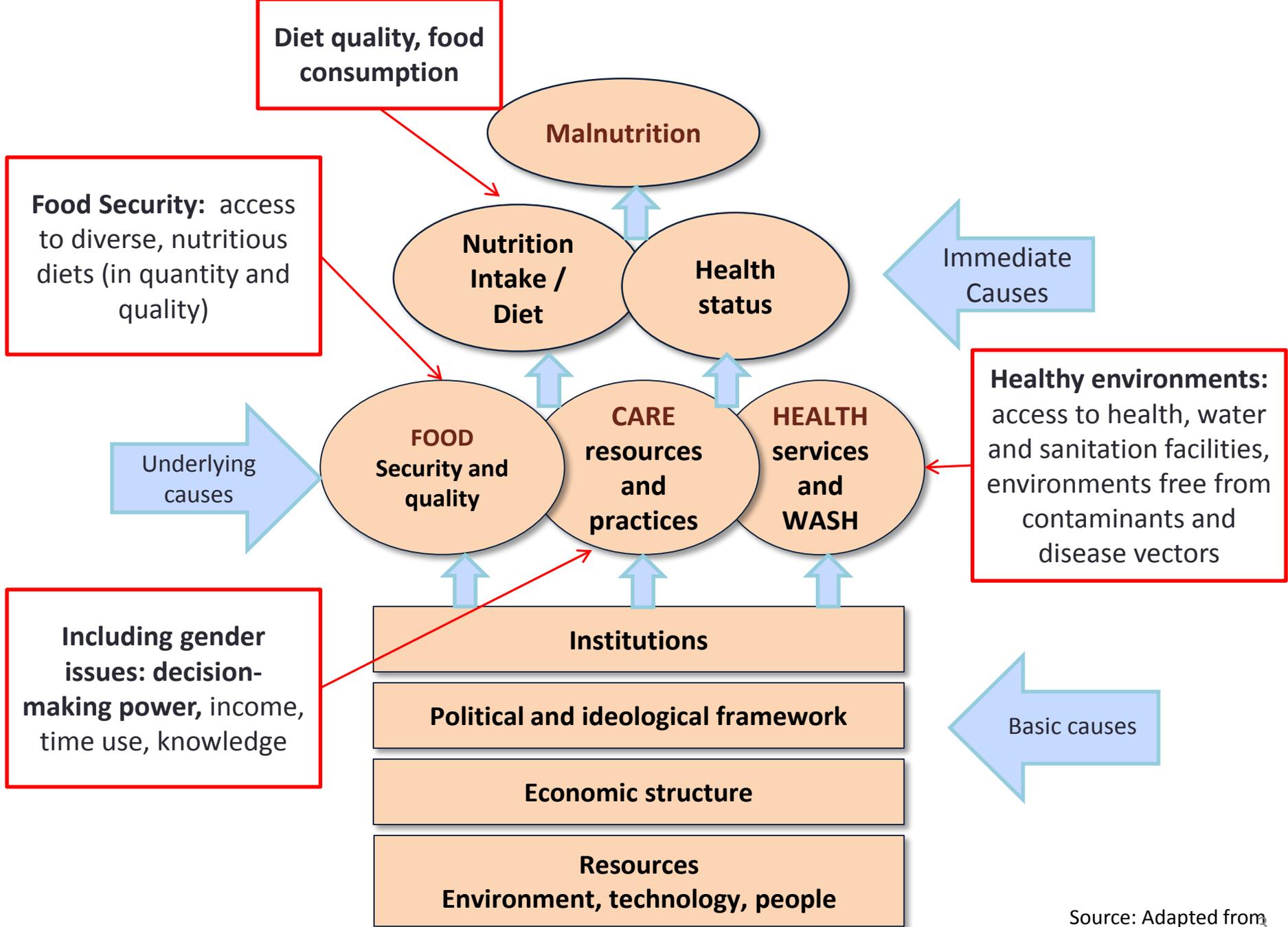
METHODOLOGIES, INDICATORS AND ISSUES AT STAKE

Agreeing on causes of malnutrition for joint action

Problem Tree for malnutrition

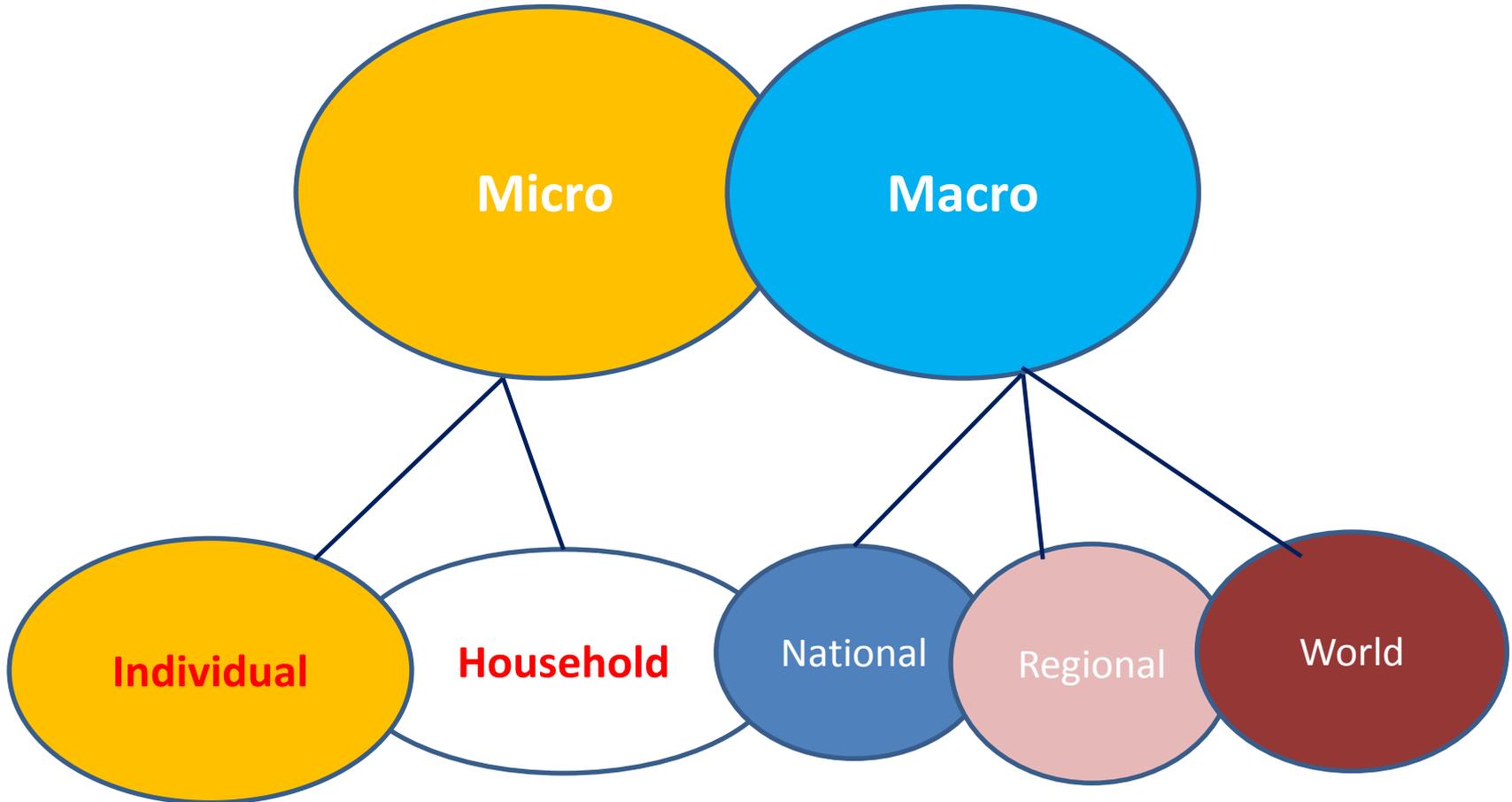
This kind of workshop methodology is useful:

- To carry out a participatory analysis of the main causes of malnutrition and to understand how these are related to people's livelihoods.
- To design a comprehensive food security and nutrition information system using the problem tree to identify relevant indicators to assess the situation

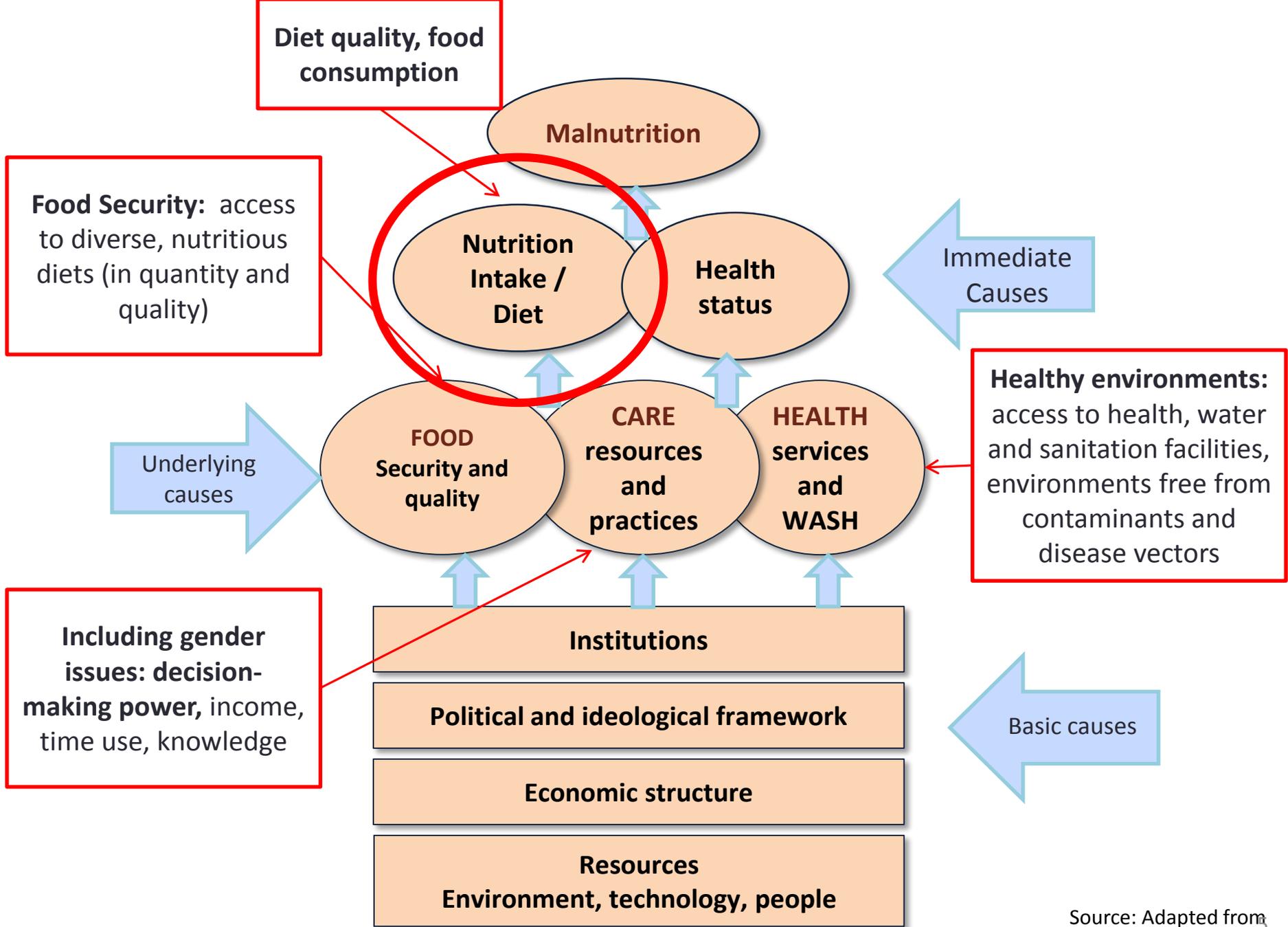


Source: Adapted from UNICEF 1990

Food and nutrition levels of analysis



Nutrition is about individuals → looking at individual is the only way to understand maternal and child nutrition



Source: Adapted from UNICEF 1990

Diet quality – Individual level

- Why to use: to understand if limited food access or income has impacted diet quality
- No easy indicator currently exists that can capture diet quality holistically. E.g.: MDD-W, IYCF (Minimum Dietary Diversity), IDDS
- MDD-W: validated as an indicator of the likelihood of micronutrient adequacy among women of reproductive age, relatively easy to administer, but it does not capture dietary quality completely.

MDD-W (Minimum Dietary Diversity – Women)

What it measures	Population	Data collection	Data analysis
A partial measure of dietary quality, which reflects nutrient adequacy and dietary diversity	Women of reproductive age (15-49 years)	Data are collected on the foods and beverages consumed in the previous 24 hours which are aggregated into 10 distinct food groups. Does not require quantitative food intake.	Several indicators can be derived from the basic data, including (i) proportion of women who consume 5 or more food groups out of ten, (ii) mean dietary diversity score, (iii) proportion of women consuming any specific food group such as animal source foods.

VALIDITY: validated as an indicator of likelihood of micronutrient adequacy among women of reproductive age.

CUT-OFF: Women who consume foods from at least 5 out of 10 food groups have a higher likelihood of micronutrient adequacy.

METHODOLOGY: Standardized methodology for data collection and analysis is currently being developed www.fao.org/food/nutrition-assessment/women

Minimum Dietary Diversity – Young Children

What it measures	Population	Data collection	Data analysis
A partial measure of dietary quality, which reflects nutrient adequacy and dietary diversity, and feeding practices	Children under 2 years	Same as above. The guidelines recommend open recall but DHS uses a list	Proportion of children 6–23 months of age who receive foods from 4 or more food groups (of 7). It is recommended that the indicator be further disaggregated and reported for the age groups: 6–11 months, 12–17 months and 18–23 months

VALIDITY: Consumption of foods from at least 4 food groups out of 7 on the previous day would mean the child had a high likelihood of consuming at least one animal-source food and at least one fruit or vegetable that day, in addition to a staple food (grain, root or tuber)

CUT-OFF (Available): The cut-off of at least 4 of the above 7 food groups because it is associated with better quality diets for both breastfed and non-breastfed children.

METHODOLOGY (Standardized) : This indicator is published by a large technical stakeholder group (WHO, UNICEF, USAID, AED, FANDA, UC Davis, IFPRI)

IDDS - Individual Dietary Diversity Score

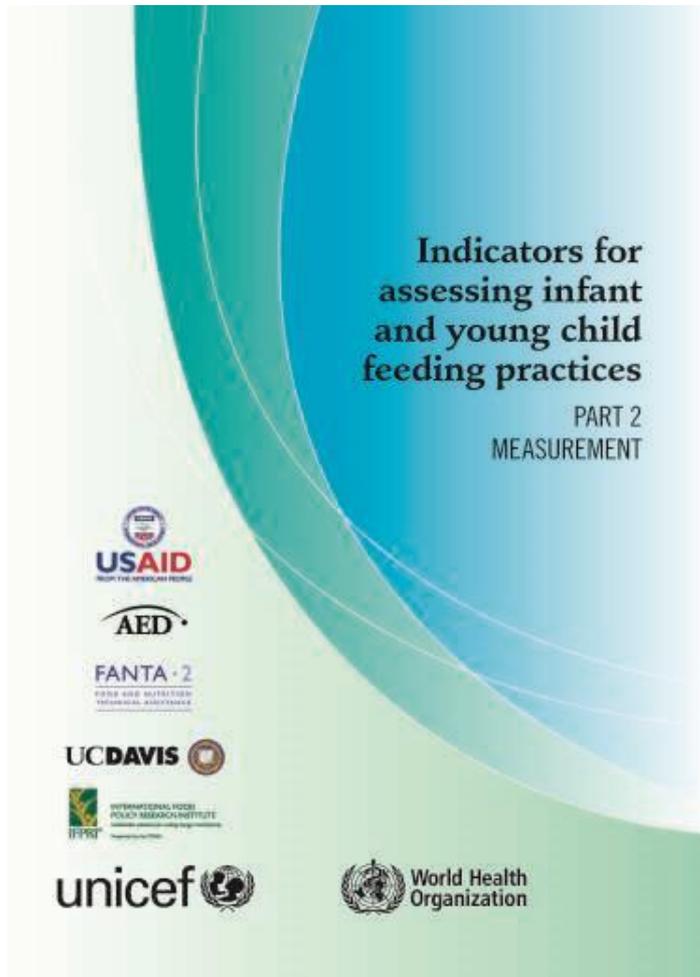
What it measures	Population	Data collection	Data analysis
A partial measure of dietary quality, which reflects nutrient adequacy and dietary diversity	Usually children over age 2 years	Consists of either an 8-question list (one for each food group), or a qualitative 24-hour food list (i.e. what did the child eat yesterday, without amounts)	Sum score – can calculate a mean or percentiles

VALIDITY: not been validated as a measure of micronutrient adequacy, but it has been defined by FANTA. It has been used for children age 2-14 years, which is an age range that lacks a validated indicator of dietary diversity.

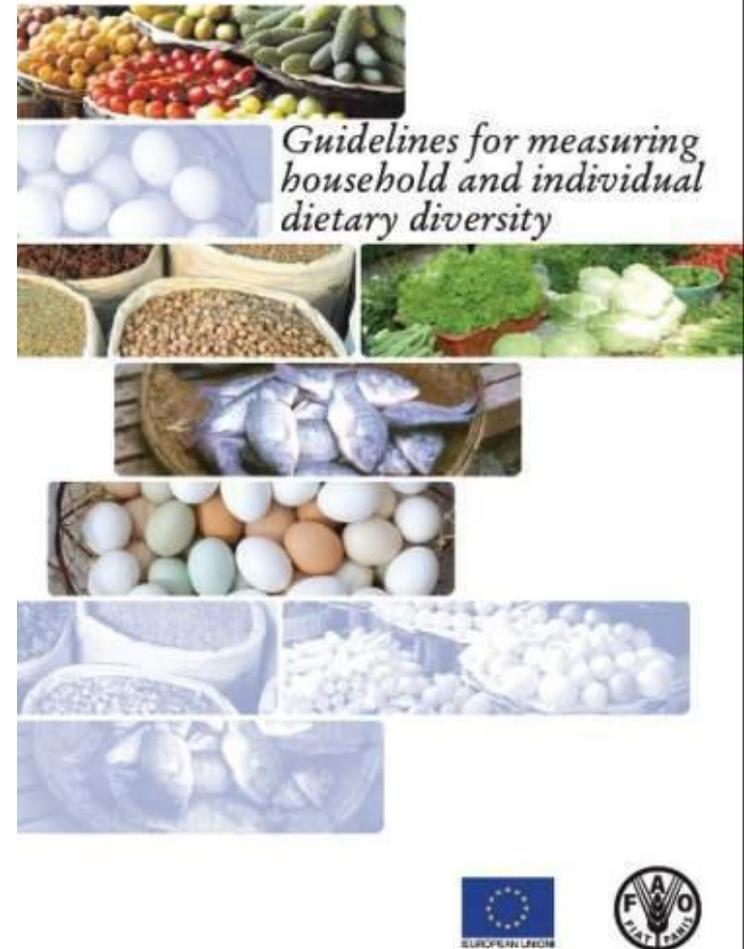
CUT-OFF: No cut-off is defined in this indicator.

METHODOLOGY: Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide (Version 2). FANTA. <http://www.fantaproject.org/monitoring-and-evaluation/household-dietary-diversity-score>

WHO IYCF indicators: Child DD



FAO guidelines: Adult and (HH) DD



Household access to food

Food Consumption Score (FCS)

- The **frequency weighted diet diversity score** is a score calculated using the frequency of consumption of different **food groups consumed by a household during the 7 days** before the survey.
- An acceptable **proxy indicator** to measure caloric intake and diet quality at household level, giving an indication of food security status of the household if combined with other household access indicators.
- It is a **composite score** based on **dietary diversity, food frequency,** and **relative nutritional** importance of different food groups.
- used primarily by the World Food Programme

Household Dietary Diversity Scale (HDDS)

- Dietary diversity represents the **number of different foods or food groups consumed** over a given reference period
- similar to the FCS, **but usually with a 24-hour recall** period without frequency information or weighted categorical cut-offs
- It is a proxy measure for **HH food access to diverse foods**
- Number of **food groups examined: 12**
- Target: **household** (HDDS)
- widely promoted by FAO and USAID (FANTA).

Food groups and weights in FCS and HDDS

Food Group	Food Items belonging to group	Food groups	Weight for FCS
1. Cereals and grain:	Rice, pasta, bread / cake and / or donuts, sorghum, millet, maize,	1. Cereals and Tubers	2
2. Roots and tubers:	potato, yam, cassava, sweet potato, taro and / or other tubers		
3. Legumes/nut:	beans, cowpeas, peanuts, lentils, nut, soy, pigeon pea and / or other nuts	2. Pulses	3
4. Orange vegetables (vegetables rich in Vitamin A):	carrot, red pepper, pumpkin, orange sweet potatoes,	3. Vegetables	1
5. Green leafy vegetables,;	spinach, broccoli, amaranth and / or other dark green leaves, cassava leaves		
6. Other vegetables:	onion, tomatoes, cucumber, radishes, green beans, peas, lettuce, etc.		
7. Orange fruits (Fruits rich in Vitamin A):	mango, papaya, apricot, peach	4. Fruit	1
8. Other Fruits:	banana, apple, lemon, tangerine		
9. Meat:	goat, beef, chicken, pork (meat in large quantities and not as a condiment)	5. Meat and fish	4
10. Liver, kidney, heart and / or other organ meats			
11. Fish / Shellfish:	fish, including canned tuna, escargot, and / or other seafood (fish in large quantities and not as a condiment)		
12. Eggs			
13. Milk and other dairy products:	fresh milk / sour, yogurt, cheese, other dairy products (Exclude margarine / butter or small amounts of milk for tea / coffee)	6. Milk	4
14. Oil / fat / butter:	vegetable oil, palm oil, shea butter, margarine, other fats / oil	7. Oil	0.5
15. Sugar, or sweet:	sugar, honey, jam, cakes, candy, cookies, pastries, cakes and other sweet (sugary drinks)	8. Sugar	0.5
16. Condiments / Spices:	tea, coffee / cocoa, salt, garlic, spices, yeast / baking powder, lanwin, tomato / sauce, meat or fish as a condiment, condiments including small amount of milk / tea coffee.	Condiments	0
		CSB	2.5

Other tools and methodologies for nutrition situation assessment and analysis

- **Agreeing on causes of malnutrition for joint action (FAO):**
<http://www.fao.org/3/a-i3516e.pdf>
- **Joint Approach in Nutrition and Food Security Assessment (TOF/JANFSA) (WFP/UNICEF):** pilot stage
- **Link NCA (ACF):** A participatory and response-oriented nutrition causal analysis. Recently released: www.linknca.org
- **Cost of the diet (Save the Children):** A tool for understanding the barriers to improving child nutrition. New version recently released: www.savethechildren.org.uk/resources/online-library/the-minimum-cost-of-a-healthy-diet
- **IPC Acute Malnutrition Classification:** currently being developed: www.ipcinfo.org/ipcinfo-technical-development/ipc-nutrition-phase-classification/en/

Joint Approach in Nutrition and Food Security Assessment (TOF/JANFSA)

Rationale:

- Assessment of household FS and child nutritional status are essential in emergency prone/affected areas and populations.
- Methodological requirements differ from each type of assessment >> Risk of rejection of joint assessment findings and conclusions.
- No standard approach for joint nutrition and FS assessment → Need for a joint methodology that meets the information needs and standards of nutrition and food security sectors (set of minimum indicators).
- Need to increase cost-effectiveness of FS and nutrition surveys

Advantages

Linkage of food security and nutrition	<ul style="list-style-type: none">• Greater understanding of the linkages (if any) between key determinants and outcome indicators of food security and nutrition.• Comprehensive collection and analysis of intra-households food distribution and utilization in relation to care and feeding practices.
Advocacy	<ul style="list-style-type: none">• Powerful advocacy tool towards local authorities and donors for joint response and programming.
Cost	<ul style="list-style-type: none">• Cost saving from pooling resources.
Coordination and planning	<ul style="list-style-type: none">• Combined food security and nutrition results allow more precise targeting, greater clarity in roles and responsibility.
Capacity	<ul style="list-style-type: none">• Technical and planning discussions, as well as the assessment results themselves, can act as a means of broadening the capacity of practitioners who normally only work in one of the sectors.

Challenges

Sample size & Precision	Level of precision for nutrition indicators higher than what is needed for food security indicators > Increased sample size and resources.
Training	Longer training days for interviewers and anthropometrists.
Specialized expertise	Higher level of expertise required when compared to separate assessments.
Analysis	Analysis plan required at the planning stage (same team all along).
Interview length	Interview entails a separate child questionnaire and a household questionnaire. Administration time: 40-60 minutes. → increased complexity compromises the quality of the data.
Data management	The requirement to link household and child datasets before analysis may require higher levels of data management expertise than single surveys at household or child level.
Coordination	Planning for a joint assessment requires greater coordination which can be challenging.

The LinkNCA

- A Link NCA is a mixed-method study (combining an expert level qualitative component with a descriptive quantitative component), based on the UNICEF causal framework, intended to build evidence-based consensus.
- The Link NCA is studying local population, typically at a scale of a district or a livelihood zone.

The LinkNCA

The Link NCA is a to answer the following research questions:

- What is the prevalence and severity of wasting and/or stunting in the population?
- What is the prevalence of key risk factors for under-nutrition among the population?
- What are the causal “pathways of under-nutrition”?
- How have the prevalence and causes of stunting and/or wasting in this population changed over time?
- Which causal pathways are likely to explain most cases of under-nutrition?
- What recommendations can be made for improving nutrition security programming?

The Cost of the Diet (CoD) (1/2)

- The Cost of the Diet is an assessment tool that uses software to estimate the amount and combination of local foods needed to provide a typical family with a diet that meets their averaged needs for energy and recommended intakes of protein, fat, and micronutrients.
- The tool aims to answer the following questions:
 - What is the minimum cost of foods that meet the nutrient needs of a typical household?
 - Can a nutritious diet be achieved using locally available foods?
 - Is this diet affordable?
 - If not, what could be done?

The Cost of the Diet (CoD) (2/2)

- This data is combined with information developed by interviewing members of households about what they eat and how they live (called Household Economy Approach assessments).
- It can also be used to estimate the proportion of households in a region that are unable to afford a nutritious diet, as well as the size of the gap between current income and the amount of money needed to meet the needs of a household.
- It provides a unique perspective on seasonal changes in nutrition security and can be used to highlight which vitamins and minerals are lacking in the diets of poor families.
- The CoD is intended to be used to inform programme design, as part of baseline assessments and alongside nutrition/food security surveillance.



Integrated Food Security Phase Classification (IPC)

- The Integrated Food Security Phase Classification (IPC) is a set of standardized tools that aims at providing a "common currency" for classifying the severity and magnitude of food insecurity.
- The IPC phases are determined by analyzing a range of outcomes based on international standards including **food consumption levels, livelihoods changes, nutritional status, and mortality**. These are triangulated with several contributing factors (**food availability, access, utilization and stability, vulnerability and hazards**) and analyzed within local contexts.
- It is based on consensus-building processes to provide decision makers with a rigorous analysis of food insecurity along with objectives for response in both emergency and development contexts.



IPC Acute Malnutrition Classification

It will include both:

- the analysis of malnutrition caused by non-food related factors, such as inadequate **caring practices and disease-related causal factors**,
- as well as **food related factors**.

It will enable a full understanding of both underlying and direct factors that affect nutritional vulnerability to help:

- Better targeting of interventions;
- Increasing coordination between humanitarian and development response;
- Integrated response for achieving food and nutrition security

Take home messages

- Nutrition is about individuals → looking at individual is the only way to understand maternal and child nutrition
- Food consumption and dietary diversity indicators as an entry point to “link” Nutrition and Food Security but challenges in collecting data + at which level
- No standardised methodologies for joint assessment
- Several tools being developed / tested to analyse the causes of malnutrition and to link food security and nutrition assessment