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# Meeting the measurement needs of the changing face of children's diets around the world

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# Conflict of Interest Disclosure

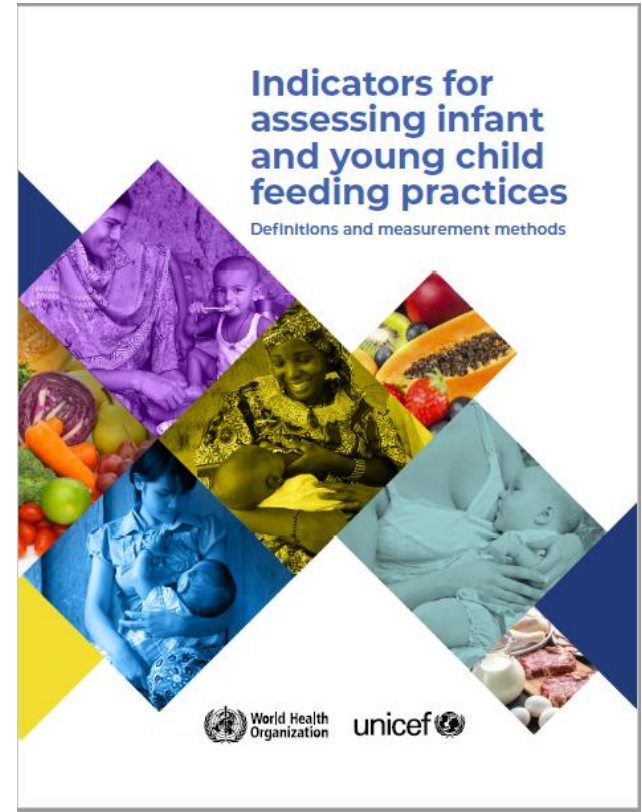
The authors have no conflict of interest to report in relation to this presentation.

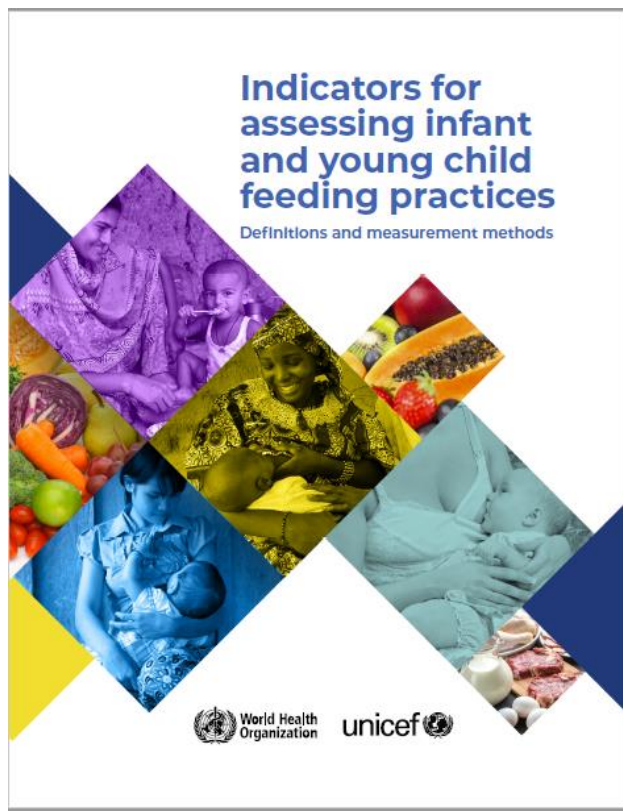


## IYCF Technical consultation in 2017 and 2018

- Re-evaluated the 2008 indicators
- Proposed additional breastfeeding and complementary feeding indicators

Following the consultations, **17 IYCF indicators recommended** for inclusion in IYCF guide published in **April 2021**.





The guidance includes

- ❖ Indicator definitions
- ❖ Data collection methodology
- ❖ Standard recommended questionnaires
- ❖ Details on selecting and training interviewers
- ❖ Analytical codes

# IYCF Guide update: Indicators retained with no change

- Children ever breastfed
- Early initiation of breastfeeding
- Exclusive breastfeeding under 6 months
- Bottle feeding
- Minimum milk feeding frequency for non-breastfed children
- Introduction to solid, semi-solid and soft foods

# IYCF Guide update: Indicators deleted

- Predominant breastfeeding under 6 months –rarely used, not considered useful
- Age-appropriate breastfeeding –hard to interpret programmatically
- Duration of breastfeeding –hard to calculate and communicate
- Consumption of iron-rich or iron-fortified foods –difficult to operationalize in household surveys

# IYCF Guide update: Revised Indicators

Continued breastfeeding - assessed among children 12-23 months of age

- With disaggregations for 12-15 months, 16-19 months, and 20-23 months

Replaces **two indicators** on 12-15 months and 20-23 months

- Large confidence intervals due to tight age range

# IYCF Guide update: Revised Indicators

Minimum Dietary Diversity (MDD): Revised indicator definition includes **breastmilk as the 8<sup>th</sup> food group.**

## Rationale for revision

- Previous definition of MDD “advantaged” non-breastfed infants by allowing breast milk substitutes, but not breast milk to count to receive a point
- Previous definition became more problematic in context of global use, i.e. if MDD becomes more commonly used in countries with high rates of use of breast milk substitutes
- Despite specific instruction against comparing breastfed and non-breastfed children in the previous guidance, experience showed that such comparisons were often made, which made assessment between breastfed and non-breastfed children unfair and inconsistent.





Previous definition required at least **4 out of 7** food groups



Revised definition requires at least **5 out of 8** food groups, including breastmilk.

# IYCF Guide update: Revised Indicators

Minimum Meal

Frequency:



Breastfed children

## CURRENT INDICATOR

6-8 months  
≥ 2/day



9-23 months  
≥ 3/day



Non-breastfed children

## PREVIOUS INDICATOR

6-23 months  
≥ 4/day



Solid/semi-solid/  
soft feeds



milk feeds



Daily intake may result in any combination of the following:



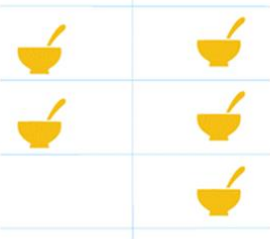













6-23 months	6-23 months	6-23 months	6-23 months	6-23 months
or	or	or	or	or

All soft and  
semi-soft foods

All breastmilk  
substitutes



# Changes in minimum dietary diversity and meal frequency have resulted in the revision of minimum acceptable diet

	Minimum Diet Diversity	Minimum Meal Frequency	Milk feeds
 <b>Breastfed children</b>	<b>5/8</b> food groups 	<div> <b>6-8 months</b>  <math>\geq 2/\text{day}</math> </div> <div> <b>9-23 months</b>  <math>\geq 3/\text{day}</math> </div> 	
 <b>Non-breastfed children</b>	<b>5/8</b> food groups 	<div> <b>For all children,</b>  <b>6-23 months</b>  <math>\geq 4/\text{day}</math> </div> <div>  <math>\geq 1/\text{day}</math>  <b>+</b> </div> <div>  /  /  </div> <div>  /  /  </div> <div>  /  /  </div> $\geq 3/\text{day}$	<b>at least 2 milk feeds</b> 

# IYCF Guide update: New Indicators

- **Exclusive breastfeeding in the first 2 days after birth** – Percentage of children born in last 2 years who were exclusively breastfed in the first 2 days following birth

**Rationale for the indicator:** Feeding newborns anything other than breastmilk has the potential to delay their first critical contact with their mother and can make it more difficult to establish breastfeeding over the long-term.

# IYCF Guide update: New Indicators

- **Mixed breast-and non-breast milk feeding under 6 months** – Percentage of infants 0-5months of age who are fed breastmilk and formula or animal milk during the previous day

**Rationale for the indicator:** Non-human milk are likely to displace breastmilk and associated with increased risk of early cessation of breastfeeding, diarrhea, altered gut microflora.

# IYCF Guide update: New Indicators

- **Egg and/or flesh food consumption** – Percentage of children 6-23 months of age who consumed egg and/or flesh foods during the previous day

**Rationale for the indicator:** Available evidence that infants and young children consuming egg and flesh food have higher intake of various nutrients important for optimal linear growth.

# IYCF Guide update: New Indicators

3 new indicators proposed to capture **unhealthy eating**

- Sweet beverage consumption 6-23months of age
- Unhealthy food consumption 6-23months of age
- Zero vegetable or fruit consumption 6-23months of age



- **Sweet beverage consumption**– Percentage of children 6-23 months of age who consumed a sweet beverage during the previous day.

### **Sweet beverage includes**

- Commercially produced and packaged beverages as soda pop, sport drinks, chocolate and other flavored milks etc.
- 100% fruit juice as well as fruit flavored drinks
- Home-made drinks of any kind to which a sweetener was added



- **Unhealthy food consumption**– Percentage of children 6-23 months of age who consumed sentinel unhealthy foods during the previous day.

### **Selected sentinel unhealthy foods includes**

- Candies, chocolate and other sugar confections, including those made with real fruit or vegetables like candied fruit or fruit roll-ups.
- Frozen treats like ice cream, gelato, sherbet, sorbet, popsicles or similar confections.
- Cakes, pastries, sweet biscuits and other baked confections
- Chips, crisps, cheese puffs, French fries, fried dough, instant noodles and similar items which contain mainly fat and carbohydrate.

- **Zero vegetable or fruit consumption**– Percentage of children 6-23 months of age who did not consume any vegetables or fruits during the previous day

**Rationale for the indicator:** Low fruit and vegetable intake in young children is linked to low intake later in life. While there is not a universal recommendation for the optimal number of servings of vegetables and fruits per day for 6-23 months old children, consumption of zero servings on the previous day represents an unhealthy practice.

# Data Collection Methodology: Household surveys

Q#	Question	Response	Code	Skip
1	Was [NAME] ever breastfed?	Yes	1	
		No	2	If "no", END questions about retrospective feeding
2	How long after birth was [NAME] first put to the breast? <i>If immediately, circle "000"</i> <i>If less than one hour, record "00" hours</i> <i>If less than 24 hours, record hours</i> <i>Otherwise, record days</i>	Immediately	000	
		Hours:	1  __ __	
		Days:	2  __ __	
3	In the first two days after delivery, was [NAME] given anything other than breast milk to eat or drink – anything at all like water, infant formula, or <i>[insert common drinks and foods, including ritual feeds, that may be given to newborn infants]</i> ?	Yes	1	
		No	2	

Indicators as ever breastfed & early initiation of breastfeeding based on **recall of practices immediately following child's birth**

Respondents are women of reproductive age with a birth in last 2 years

Questions asked about **all live births in last 24 months**, whether the infant is alive or dead at the time of interview

Indicator	Measurement methods
<p><b>Current breastfeeding practices</b></p> <p>Exclusive breastfeeding under 6 months, continued breastfeeding etc.)</p>	<p>Based on <b>24-hour dietary recall</b> (<i>day before the survey</i>)</p> <ul style="list-style-type: none"> <li>• <b>List-based method recommended to record beverage intake</b></li> <li>• Foods fed to child may be recorded using <b>open-recall or list-based recall</b></li> </ul>
<p><b>Current complementary feeding practices</b></p> <p>(Minimum dietary diversity, egg and/or flesh food consumption etc.)</p>	<p><i>The beverage and food lists must be adapted to represent the most commonly consumed items by infants and young children in a country</i></p> <p>Questions to mothers/caretakers about <b>all living children 0-23months of age</b> in a household</p>

# OPEN RECALL QUESTIONNAIRE FOR FOODS

Q#	Question	Response and code		
7	<p>Now I would like to ask you about everything that [NAME] ate yesterday during the day or the night. I am interested in foods your child ate whether at home or somewhere else.</p> <p>Think about when [NAME] woke up yesterday. Did (he/ she) eat anything at that time?</p> <p><i>If "yes" ask: Please tell me everything [NAME] ate at that time.</i></p> <p><i>Probe: Anything else?</i></p> <p><i>Record answers using the food groups below.</i></p> <p>What did [NAME] do after that? Did he/she eat anything at that time?</p> <p><i>Repeat this series of questions, recording in the food groups, until the respondent tells you that the child woke up this morning.</i></p> <p><i>If a mixed dish is mentioned:</i></p> <p><i>Probe: What were the main ingredients in [MIXED DISH]?</i></p> <p>Record answers in the correct food groups 7A–7R.</p>			

		YES	NO	DK
7A	Yogurt, other than yogurt drinks?	1	2	9
7Anum	<p><i>If "yes": How many times did [NAME] eat yogurt?</i></p> <p><i>If more than 7, record "7"</i></p> <p><i>If number of times not known, record "9"</i></p>	Number of times  __		
7B	Porridge, bread, rice, noodles, pasta or <i>[insert other commonly consumed grains from table A6.2, including foods made from grains like rice dishes, noodle dishes, etc.]?</i>	1	2	9

# LIST-BASED QUESTIONNAIRE FOR FOODS

Q#	Question	Response and code		
7	<p>Now I would like to ask you about foods that [NAME] had yesterday during the day or at night. I am interested in foods your child ate whether 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 types of foods, and I would like to know whether your child ate the food even if it was combined with other foods in a mixed dish like <i>[list common local examples of mixed dishes]</i></p> <p>Please do not answer "yes" for any food or ingredient used in a small amount to add flavour to a dish.</p> <p>Yesterday during the day or at night, did [NAME] eat:</p>			
		YES	NO	DK
7A	Yogurt, other than yogurt drinks?	1	2	9
7Anum	<p><i>If "yes": How many times did [NAME] eat yogurt?</i></p> <p><i>If more than 7, record "7"</i></p> <p><i>If number of times not known, record "9"</i></p>	Number of times  __		
7B	Porridge, bread, rice, noodles, pasta or <i>[insert other commonly consumed grains from table A6.2, including foods made from grains like rice dishes, noodle dishes etc.]?</i>	1	2	9