

# Terms of Reference

## Expansion of infant and young child feeding and other nutrition

### I. Background

UNICEF places a high priority on the availability of reliable information with which to monitor the situation of children and women. Statistically sound and internationally comparable data are essential for developing evidence-based policies and programmes, as well as for monitoring countries' progress toward national goals and global commitments, including the Sustainable Development Goals (SDGs). UNICEF databases and publications are viewed with high regard among the UN, governments and other partners, especially in the realm of nutrition.

UNICEF global databases require expansion to allow a more granular understanding of the situation of children and women and also to provide more information as part of the data quality review process. The purpose of this terms of reference will be to generate an expanded set of unicef global nutrition databases, with a major focus on infant and young child feeding and related indicators.

### II. Purpose

To develop an expanded database on infant and young child feeding with a focus on re-analysis of all DHS and MICS surveys.

### III. Description of assignment

To develop an expanded infant and young child feeding database taking into account the following major steps:

- Finalize tabulation plan and structure of output for all IYCF databases, including metadata
- Undertake re-analysis of all DHS and MICS which contains at minimum the indicators, disaggregations and variables listed in tables 1a, 1b and 1c. Tables 1.a, 1.b and 1.c are illustrative of the indicators and disaggregations but not all disaggregations will apply to all indicators.
- Develop MACROS in STATA and R ready for public use for analysis of the standard output tables including instructions

**Table 1.a list of IYCF indicators for database**

% ever breastfed *
% first put to the breast within one hour of birth*
% first put to the breast between >1and <24 hours after birth
% first put to the breast 24 hours after birth or later

% first put to the breast between 24-47 hours after birth
% first put to the breast 48 hours after birth or later
% of ever Bf newborns fed only breastmilk in the first 3 days of life
% of ever Bf newborns fed breastmilk and non-milk based items only in the first 3 days of life
% of ever Bf newborns fed breastmilk and milk based liquids only in the first 3 days of life
% of ever Bf newborns fed breastmilk and milk based liquids AND non-milk based items in the first 3 days of life
% of ever Bf newborns fed breastmilk and milk based liquids and/or non-milk based items in the first 3 days of life
% of all newborns fed only breastmilk in the first 3 days of life
% of all Bf newborns fed breastmilk and non-milk based items only in the first 3 days of life
% of all Bf newborns fed breastmilk and milk based liquids only in the first 3 days of life
% of all Bf newborns fed breastmilk and milk based liquids AND non-milk based items in the first 3 days of life
% of all Bf newborns fed breastmilk and milk based liquids and/or non-milk based items in the first 3 days of life
Any breastfeeding 0-11 months
Any breastfeeding 12-23 months*
Any breastfeeding 0-5 months
Any breastfeeding 6-11 months
Exclusive breastfeeding 0-5 months*
Partial breastfeeding 0-5 months*
Predominant breastfeeding 0-5 months*
Infants receiving formula 0-5 months
Infants receiving breast milk substitutes 0-5 months
Infants receiving plain water 0-5 months
Infants receiving water based liquids other than water 0-5 months
Infants receiving water based liquids including water 0-5 months
Infants receiving solid, semi-solid or soft foods 0-5 months
Median duration of any breastfeeding
Median duration of exclusive breastfeeding
Bottle feeding 0-23 months
Bottle feeding 0-5 months
Bottle feeding 0-11 months
Bottle feeding 12-23 months
Infant feeding area graphs table 0-5 months*
Minimum diet diversity 6-23 months*
Minimum meal frequency 6-23 months*
Minimum acceptable diet 6-23 months*
Egg consumption 6-23 months
Flesh food consumption 6-23 months
Dairy consumption 6-23 months
Any animal source food consumption 6-23 months
At least 1 type animal source food 6-23 months
At least 2 types animal source food 6-23 months
All 3 types of animal source food 6-23 months
0 food groups 6-23 months
At least 1 food group 6-23 months
At least 2 food group 6-23 months

At least 3 food group 6-23 months
At least 4 food group 6-23 months
At least 5 food group 6-23 months
At least 6 food group 6-23 months
At least 7 food group 6-23 months
All 8 food groups 6-23 months
1 food group 6-23 months
2 food groups 6-23 months
3 food groups 6-23 months
4 food groups 6-23 months
5 food groups 6-23 months
6 food groups 6-23 months
7 food groups 6-23 months
8 food groups 6-23 months
Any fruit or vegetable 6-23 months
Vitamin A rich fruit or vegetable 6-23 months
Other (not incl VA rich) fruit or vegetable 6-23 months
Grains, roots or tubers, 6-23 months
Legumes, nuts or seeds 6-23 months
0 meals 6-23 months
At least 1 meal 6-23 months
At least 2 meals 6-23 months
At least 3 meals 6-23 months
4 plus meals 6-23 months
Milk feeding non-BF 0 milk feeds 6-23 months
Milk feeding non-BF only 1 milk feed 6-23 months
Milk feeding non-BF 2 milk feeds 6-23 months
Milk feeding non-BF 3 milk feed 6-23 months
Milk feeding non-BF 4 or more milk feed 6-23 months
Milk feeding non-BF at least 1 milk feed 6-23 months
Milk feeding non-BF 2 or more milk feed 6-23 months
Feeding of solid semi-solid or soft foods 0-11 months
Introduction to solid, semi-solid and soft foods 6-8 months*

\* Denotes standard indicators for first deliverable

**Table 1.b list of disaggregations for IYCF indicator database**

Sex (male/female)
Infant age (sub age groups, e.g. 0-1, 2-3 and 4-5 months; or 12-15, 16-19, and 20-23 months, etc)
Current BF status (currently BF and not currently BF)
Ever BF status (Ever BF and not ever BF)
Liquids/Foods other than breastmilk given in the first 3 days of life (none; any, water based only; milk based only; water based and/or milk based; water based AND milk based)
Timing of initiation (within 1 hour, >1to<24 hours; 24+ hours)
Parity (primiparous, 2-3, 4+)
Type of delivery (regular, C section)
Singleton, multiple birth
Area of residence (urban/rural)
Geographic area (varies by country/survey)
Wealth sub groups (quintiles, deciles, terciles, top 40%/bottom 60%, top 60%/bottom 40%, top half/bottom half)

Mothers age at birth (indicators at birth)
Mother's age at time of survey (indicators of current status)
Mother's education standardised (none, primary, secondary plus)
Mother's education all (varies by country)
Household head ethnic group
Place of delivery short (institutional vs non-institutional)
Place of delivery long (private facility, public facility, home/other)
Attendant at birth short (skilled/unskilled)
Attendant at birth long (varies by country – health personnel, other personnel, family/friend)
Ethnicity of head of household
Sex by area of residence (e.g urban boys, rural girls)
Sex by wealth (using various wealth groupings, e.g. girls lowest tercile; boys richest quintile)
Sex by geographic area (e.g. girls region 1; boys district 2)
Wealth by area of residence (e.g. rural wealth tercile 1, urban wealth tercile 2)
Wealth by geographic area (e.g. poorest quintile region 1)
Area of residence by mothers education(e.g. rural no education; urban secondary +)

**Table 1.c variables to include per indicator/disaggregation**

Prevalence
Standard error
Upper 95% confidence interval
Lower 95% confidence interval
Unweighted sample size
Weighted sample size

#### IV. Deliverables

DELIVERABLE	Deadline
<b>design of output for standard indicators (standard indicators denoted with an asterisk in table 1)</b>	<b>1 December 2017</b>
<b>Database outputs for all standard indicators</b>	<b>30 December 2017</b>
<b>design of output for remaining indicators (standard indicators denoted with an asterisk in table 1)</b>	<b>15 January 2018</b>
<b>Database outputs for remaining indicators</b>	<b>30 March 2018</b>
<b>MACROS and instructions for public use</b>	<b>30 April 2017</b>

## V. Reporting requirements

- **Inception report** by 1 December 2017 which describes and has shell output tables and proposed database structure for all standard indicators (as described in table 1.a under section III description of assignment)
- **Database outputs** by 30 December 2017 for all MICS and DHS for all standard indicators including a report of data accuracy checks against reported values
- **Report** by 15 January 2018 which describes and has shell output tables and proposed database structure for all remaining indicators in table 1.a
- **Database outputs** by 30 March 2018 for all MICS and DHS for all remaining indicators including a report of data accuracy checks against reported values
- **MACROS** for public use in STATA and R as well as instructions for their use in Word.

## VI. Location and duration

Remote-based for NYHQ.

## VII. Qualification requirements

Institutions should have a proven track record over at least the last 5 years in undertaking similar projects related to data analysis of this scope and scale with at least 2 references for clients they undertook similar projects for. Methodology proposed by applying institutions should clearly define steps for completing the assignment and demonstrate availability of required hardware and software to complete the task in a timely manner. Institutions should give specific details of staff that would be allocated to this project (and outline how they would manage the need to replace any proposed team members, if that should arise during the course of the contract, from their institution to get the work done according to the timeline) which should have at minimum the qualifications outlined below:

- **Education**: team members to have advanced degree in Nutrition, and/or Statistics, or Epidemiology (Master's degree or higher) preferred and a team which covers 2 or more of the specializations listed preferred.
- **Work experience**: Team leader to have at least ten years of experience in nutrition monitoring, and household survey research and analysis using large and complex household survey data sets (e.g. MICS and DHS). Other team members to have at least five years of experience in data management, database management, and data analysis using large and complex household survey data sets; experience with nutrition data and infant and young child feeding data preferred.
- **Other skills and attributes**:
  - Required: Team members to have experience and proficiency in the programming of statistical software (e.g. STATA, R) and spreadsheets such as Excel.
  - Desirable: Experience preparing written manuscripts for peer review publications and writing of instructional material
- **Languages**: Ability to speak and write fluently in English is required; in addition, a good working knowledge of French or Spanish will be an asset.

### VIII. Technical criteria and weight allocated between technical and price proposal

The submissions will be evaluated based on the technical and financial proposals with a maximum of 60 points for the technical proposal and 40 points for the financial proposal.

#### TECHNICAL EVALUATION CRITERIA

The technical proposal will be assessed on its completeness, concordance with completing the RFP deliverables, samples/examples of previous work, range and depth of completing similar projects including number of clients and client references, qualifications of personnel to be dedicated to this project and proposed methodology and approach to complete the task. The breakdown of points for the technical proposal is as follows:

Technical criteria	Max score
Completeness	5
Proposed methods including concordance with completing the RFP deliverables	20
samples/examples of previous work	5
range and depth of similar projects completed and client references	10
qualifications of personnel to be dedicated to this project	20

The technical proposal will be reviewed in isolation and only proposals with a minimum score of 40 will be considered further along with the financial proposal.

#### FINANCIAL EVALUATION CRITERIA

The lowest financial bid will receive the following maximum score:

Financial Evaluation Criteria	Score
Lowest Bid	100

The formula for calculating the financial score is the following:

$$\text{Financial Score} = \frac{\text{Lowest Bid (US\$)} \times 100(\text{Maximum Score})}{\text{Bid Being Scored (US\$)}}$$

#### **Final evaluation (combined technical and financial evaluation)**

The total score of each bidder will be the weighted sum of the technical score and the financial score as shown below. The maximum total score is 100 points.

$$\text{Total Score} = 60\% \times \text{Technical Score} + 40\% \times \text{Financial Score}$$

## **IX. Administrative Issues**

- Interviews will be held if necessary indicating with the Team leader.
- Bidders are requested to provide an all-inclusive cost in the financial proposal.
- Travel is not expected; work will be remote in nature

## **X. Project Management**

This project will be managed by the Data Analysis Unit of the Data & Analytics (D&A) Section of the Division of Research and Policy at UNICEF NYHQ. Focal points in D&A for this project will be accessible via email, phone and skype.

## **XI. Payment schedule**

25% upon clearance of inception report  
15% upon clearance of second deliverable  
10% upon clearance of third deliverable  
25% upon clearance of fourth deliverable  
25% upon clearance of fifth and last deliverable