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Food-Based Recommendations Guide for Household-Level Programming

NOVEMBER 2023

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Photo Credit: Care group lesson on child feeding, Tsholotsho district. Credit: Pamela Murakwani/Amalima Loko.

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Introduction

Use this guide when assessing new contexts and developing recommendations to improve dietary practices using locally available resources. The primary audience for this guide are field practitioners designing and implementing food and nutrition multi-sectoral programs with community-based interventions. The guide focuses on developing recommendations for children 6–23 months, but can be tailored for any age group (pregnant and lactating women, adolescents). The guide requires that staff with a nutrition background lead on the use, in collaboration with a multidisciplinary team. Engagement of caregivers and key community stakeholders through participatory exercises is a key component to developing recommendations.

The guide consists of the following:

1: Review Secondary Data
- a. Secondary data sources
- b. Identification of sub-optimal dietary factors

2: Develop a Key Foods List
- a. Foods list
- b. Seasonal food availability calendar
- c. Market mapping exercise
- d. Community focus group

3: Observe Common Meal Preparation
- a. Meal preparation exercise
- b. Pile sorting exercise

4: Analyze and Refine Food Combinations
- a. Nutrient analysis

5: Test Recommendations
- a. Set the stage
- b. Establish needed background
- c. Try the behaviors
- d. Assess the outcomes
- e. Analyze and make recommendations

6: Apply Learning to the Program

7: Use the Training Guide for Programming

Section I: Secondary Data Review

Secondary Data Sources

This section reviews existing data relevant to the Amalima Loko program priority behavior:

Caregivers feed children under five (CU5) (6–59 months) an adequate quantity (amount/meal and frequency) and a variety of nutrient-rich foods for both meals and snacks.

This may include national policies, strategies, and surveys; studies and assessments carried out by the current program; resources produced by other nongovernmental organizations working in the same area, and global guidance that can be adapted for the program context. Relevant resources can be noted in the spreadsheet outlined in annex A. Considerations include—

Government of Zimbabwe (GoZ) policies/strategies/surveys:

- food fortification policies
- social and behavior change (SBC) strategy
- infant and young child feeding (IYCF) strategy
- GoZ health and nutrition surveys
- GoZ market surveys.

Amalima Loko program documents:

- SBC strategy
- IYCF-related behavior profiles
- Amalima Loko peer group literature
- Amalima Loko refinement year studies.

Amalima Loko and Amalima program data including—

- baseline, midterm, or endline surveys
- routine monitoring data.

Other NGO and stakeholder documents related to the priority behavior:

- Zimbabwe Demographic and Health Survey
- Multiple Indicator Cluster Surveys (MICS) Survey
- SMART surveys
- Famine Early Warning Systems Network (FEWS NET) assessments
- Food and Agriculture Organization of the UN (FAO) surveys
- World Food Programme (WFP) assessments/reports
- ENSURE program or Takunda program resources
- Bio Innovation Zimbabwe.

Identify Sub-Optimal Dietary Factors

In this section, the user reviews secondary data (listed above) to identify the sub-optimal dietary and caring practices that may affect the key behavior that the program hopes to address. Information should be analyzed considering factors such as socio-economic status, biological sex, and other (i.e., livelihood, ethnicity/religion). This process aims to narrow in on the sub-optimal practices and identify gaps that may need further study through participatory-based community exercises, as well as to focus the nutrient analysis and proposed modifications to be studied through household behavioral trials.

Instructions: Fill in the cells with quantitative data, stratifying by program geographic areas (districts, sub-districts) or other pertinent areas. The fields that should be filled in are based on the key practices that are part of the program, which will contribute toward achieving programmatic indicators.

Key Behavior: ***Caregivers feed CU5 (age 6–59 months) an adequate quantity (amount/meal and frequency) and variety of nutrient-rich foods for both meals and snacks. (See table 1.)***

Amalima Loko program population for this guide: children 6–23 months

Amalima Loko program districts: Lupane and Binga

Other stratifying factors: socio-economic status, biological sex, and other (i.e., livelihood, ethnicity/religion).

Table 1. National and Program Population-Based Indicators Related to the Key Behavior

	National (source)	District(s)	Sex (M/F)	Socio-economic Level	Other
National Data					
% of children 12–15 months of age who are fed breast milk					
% of infants 6–8 months of age who receive solid, semi-solid, or soft foods					
% of breastfed and non-breastfed children 6–23 months of age who receive solid, semi-solid, or soft foods[1] the minimum number of times[2] or more					

[1] Includes milk feeds for non-breastfed children.

[2] Minimum is based on age and breastfeeding status: two times for breastfed child 6–8 months; three times for breastfed child 9–23 months; and four times for non-breastfed child 6–23 months.

	National (source)	District(s)	Sex (M/F)	Socio-economic Level	Other
% of children 6–23 months of age who receive foods from four or more of seven food groups (grains, roots, and tubers; legumes and nuts; dairy products; meat, fish, and poultry; eggs; vitamin A–rich fruits and vegetables; and other fruits and vegetables)					
% of children 6–23 months of age who receive a minimum acceptable diet (apart from breast milk)[3]					
% of children 6–23 months of age who ate vitamin A–rich foods in the past 24 hours					
% of children 6–23 months of age who ate iron-rich foods in the past 24 hours					
Program Indicators					
MDD					
MAD					

[3] The indicator is a composite of minimum dietary diversity and minimum meal frequency.

Additional Factors that Influence Multi-Sectoral Nutrition Behaviors

Key Behavior: ***Caregivers feed CU5 (age 6–59 months) an adequate quantity (amount/meal and frequency) and variety of nutrient-rich foods for both meals and snacks. (See table 2.)*** (USAID Advancing Nutrition 2020)

Instructions: Type qualitative descriptions in the cells below to analyze context-specific data related to the key behavior. After filling in the cells with data, shade the cells to inform possible programming recommendations/approaches. These may be barriers that need to be overcome (shade in light red), or motivators that could be leveraged throughout the program (shade in light green). This may include common perspectives among community members; desire to use current program approaches/existing platforms to reach the target population; and other factors in the program theory of change that is critical to reaching an outcome. Programs should consider using their behavioral profiles and refinement year research, in addition to other secondary data, for this exercise. This information will also inform some of the sustainability factors in the nutrient analysis.

Definition: For this work, nutrient-rich foods are defined as foods from four or more food groups (breast milk; grains, roots, and tubers; legumes and nuts; dairy products; flesh foods; eggs; vitamin A–rich fruits and vegetables; other fruits and vegetables).

Table 2. Factors That Make It Easier or More Difficult to Practice the Key Behavior

Which Factors Make it Easier or More Difficult to Practice the Key Behavior?	District 1: Lupane	District 2: Binga	Cross-District or National Level
Structural			
Accessibility to nutrient-rich foods			
Availability[4]			
Cost[5]			

[4] Availability-market distance/frequency, gathering foods, raising food, seasonality of foods, livelihood of nutrient-rich foods.
[5] Cost definition: caregiver/household perception of ability to buy foods within the defined food groups at markets.

Which Factors Make it Easier or More Difficult to Practice the Key Behavior?	District 1: Lupane	District 2: Binga	Cross-District or National Level
Food or nutrition policies[6]			
Caregivers' time to prepare nutrient-rich meals			
Caregivers' time to prepare nutrient-rich snacks			
Other			
Social			
Norms around feeding practices[7]			
Workload			
Decision-making of caregivers (food purchases, food preparation, intra-household distribution of food)			
Control of income among caregivers			

[6] Note if in-kind food aid, locally available fortified foods, or home fortification with micronutrient supplements are available.
[7] This may include how boys and girls are fed differently.

Which Factors Make it Easier or More Difficult to Practice the Key Behavior?	District 1: Lupane	District 2: Binga	Cross-District or National Level
Status of women (movement, approval)			
Other social factors			
Internal			
Self-efficacy of caregiver to prepare nutrient-rich foods			
Skills to prepare nutrient-rich foods			
Perceived value of indigenous foods			
Knowledge of nutrient-rich foods			
Caregivers attitude toward preparing nutrient-rich foods			
Caregivers aspirations for their children 6–59 months			
Child care practices that affect child feeding			

Which Factors Make it Easier or More Difficult to Practice the Key Behavior?	District 1: Lupane	District 2: Binga	Cross-District or National Level
Supporting Actors and Actions			
Institutional			
Community (traditional and religious leaders)			
Household (primary and secondary caregivers)			
Practicing a new behavior with support from a community member			
Practicing a new behavior with support from a household member			
Printed materials to serve as reminders			
Other			

Section II: Develop a Key Foods List

This section creates a Key Foods List that is used to develop recommended dietary practices for the target population. To achieve this objective, follow the steps for organizing an existing list or new list of foods available in the community. Your product will be a Key Foods List with 25–30 key foods (including foods growing in the wild, foods produced in the home, or purchased food), which should include energy-rich foods, animal source foods (ASF), sources of micronutrients (iron, zinc, vitamin A, vitamin C, and calcium), which can contribute toward filling nutrient gaps outlined in section I (PAHO and WHO 2013).

Key Foods List

Steps:

1. Begin by documenting a list of foods available in the community. List one food per line as it relates to the respective food group, noting seasonal availability, cost, and district in which it is found.

   Different resources may be useful in drafting a list of locally available food:

   - Ministry of Health food groups for the respective country
   - food groups using global indicators, such as Minimum Dietary Diversity (MDD) (INDEX Project 2018)
   - a Food Composition Table for your country or region
   - seasonal food availability calendar—detailed guidance is listed below.
   - market survey data—a detailed methodology is available below for carrying out a Market Mapping Exercise
   - Community Focus Group exercise—to gather information on food availability and access from the perspective of community members, includes neglected and underutilized foods. A detailed methodology is available below.

2. Organize the information from the various sources and exercises forming a list of approximately 25–30 foods. Annex B is an example template for creating a Key Foods List.

3. Consider adding foods to the list that are being promoted through (nutrition-sensitive) the agricultural activities of your program.

Seasonal Food Availability Calendar

A seasonal food availability calendar is used to identify when different foods are available in the community or a certain program area. This information provides important considerations for the nutrient analysis when developing a variety of food-based recommendations (FBRs) and adjusting for those based on seasonal availability. Detailed guidance on developing seasonal calendars for any food groups are available in this guide. Results from the seasonal calendar exercise can be coupled with a market mapping exercise (see below) given that availability, accessibility, and affordability (e.g., the cost of a food or level of effort [LOE] involved to obtain or gather a food) are closely linked and should be considered when developing FBRs.

Market Mapping Exercise

This market mapping exercise identifies the types of foods that are locally available, accessible, and affordable in the markets in the program area. Data concerning the seasonal availability, the costs of foods that make up the different food groups, as well as the consumer preferences and characteristics of food retailers will help determine which fruits, vegetables, ASF, and staple foods to consider when developing FBRs.

Some foods might be produced within a program community, yet other foods may have been produced elsewhere but are available to consumers through the network of food traders, transporters, processors, and retailers who can ensure availability of products of rural, peri-urban, and urban markets. A mapping of territorial markets is helpful to better understand the complexity of availability, accessibility, and affordability of foods that will make up a certain food-based recommendation, and the roles and attributes of the different stakeholders involved.

While a vast range of market survey and mapping methodologies exists, the program team can engage in a market mapping exercise using Mapping of Territorial Markets methodology and guidelines for participatory data collection on food markets.[8] The guide provides a detailed, step-by-step description of the methodological procedures, suggestions for data processing and analysis, and data collection tools in the annexes. As with any market survey or mapping methodology, the program team will need to adapt the questionnaires provided in this guide to the local context. Also, depending on data previously collected by the program team, some questions may not be needed, or additional questions can be added as appropriate.

Community Focus Group Discussion

The objective of the community focus group discussion (FGD) is to obtain details from community members about foods available in the community. This includes foods produced or grown at home, raised, purchased, and gathered (Neglected and Underutilized Foods). This exercise with caregivers can be done in a community setting. To ensure varied practices are captured during this exercise, a variety of people (from any and all socio-demographic backgrounds, livelihoods, gender/age, race/ethnicity) should be asked about foods commonly eaten. See table 3.

Here are some questions to use when talking with community members:

[8] The open source KoboToolbox data collection tools can be considered as a data collection platform.

Table 3. Questions to Ask Community Members

Foods Commonly Eaten		SES/Family Structure*	Livelihood**	Ethnic Group/Religion***
What do you grow or raise at home?				
What do you grow in fields?				
What do you grow in community gardens?				
What do you buy at the market?				
Which foods can you preserve (dry/ferment) to last for some time?				
How are these affected by the time of the year?				
What foods can you wild collect within your community?				
Are there any traditional foods that are becoming less commonly consumed?				

* female-headed household
** pastoral, agro-pastoral, migration, other
*** polygamous, agnostic

Add any new foods from the FGDs to the Key Foods List.

Section III: Observe Common Meal Preparation

Objective: This section[9] helps observe the preparation of meals intended for the target population, gather data for use in the analysis, and form recommended modifications to current feeding practices. To achieve this objective, follow the steps for conducting a meal preparation exercise and combine it with a pile-sorting exercise. You will need the Key Foods List from component 1 to set up the observation exercise and the pile-sorting exercise (PAHO and WHO 2013).

Your product will be new or modified dietary practices based on what is commonly eaten in the households of the target population. These dietary practices will be analyzed in component 4, and refined according to facilitators and barriers indicated by the secondary data review and pile-sorting exercise to improve their nutrient content for the target population.

Meal Preparation Exercise

The objective of a meal preparation exercise is for caregivers to use the foods from the Key Foods List and to demonstrate the preparation of common meals usually fed to young children. This exercise can be conducted with two–three different sets or groups of key foods to learn about a variety of meals that are typically prepared. Use the meal preparation exercise form in annex C to record data (you will need one form for each meal recorded).

Steps:

1. For each session, identify approximately 10 caregivers with similar characteristics (from the same community or with similar economic conditions). To ensure that caregivers are able to participate fully in the session, it is recommended to have two–three people watching the children during the session and to have toys on hand for them.
2. Gather materials, including copies of the Meal Preparation Exercise Form, food scale, household measures used by caregivers for cooking, and ingredients (selected from the Key Foods List, fresh and/or cooked foods prepared from a raw state, in pre-weighed and recorded quantities appropriate for the number of participants). Also, include materials for washing hands and sanitizing cooking utensils.
3. The sessions should be carried out in a typical, and comfortable environment, where caregivers are provided with the ingredients, cooking utensils, and fuel for the meal preparation or modification.
4. At the beginning of each session, clearly state the objectives of the exercise and the steps followed as outlined in annex C.

[9] Adapted from CRS Recipe Development Guide (Catholic Relief Services, 2020) and ProPAN Process for the Promotion of Child Feeding Field Guide (PAHO (Pan American Health Organization) and World Health Organization (WHO). 2013)

5. It is important to ask in the beginning, "How do you cook for your children? Prepare an individual meal? A pot for children only? Does it differ by age? Or a household pot for everyone?" This helps determine if you do one meal preparation or two, differing by age. Depending on the response to question *b*, the caregivers of children of different ages might be split up. For example, "We will split into groups by the age of your child. Those with children 6–11 months of age, please stay together and prepare a recipe for children six months or older who are just learning to eat. Those with children 12–23 months please stay together and prepare a recipe for children 12–23 months who are already eating table foods."
6. Give caregivers a set amount of time to prepare their meal(s) and then feed their children.
7. Weigh all ingredients using the food scale before the participants use it for cooking. If ingredients are items pre-cooked from raw form (like rice or beans) for use in the exercise, record the raw amounts, as well as cooked amounts, and then also record amounts used in any meal.
8. Before children eat the meals, weigh the final products of the recipes used by the participants, and record ingredients used and amounts of each.
9. Note if the children eat from their own plates or with other children from the same plate.

Pile Sorting Exercise

The objective of a pile-sorting exercise with caregivers of young children is to better understand feeding practices within a household using the Key Foods List or visual representations (pictures or picture cards). Steps to follow are outlined below, and suggested questions are available in a Pile Sorting Exercise Data Recording Form in annex D.

Steps:

1. The pile-sorting exercise can be conducted in tandem with the same participants as the meal preparation exercise.
    - Split the caregivers into similar groups as those used for the meal preparation exercise. For example, group those with children 6–11 months of age together, and group those with children 12–23 months together.
    - The materials needed are either actual foods or pictures of foods that are of interest (potential food taboos) or the most nutrient-rich foods available (ASF or plant source foods that could fill a nutrient gap [iron, vitamin A, calcium]).
2. Arrange the Key Foods List or the pictures by their food group to begin. You can use Pile Sorting Exercise Data Recording Form in annex D to go through items and record data.

Section IV: Analyze and Refine Food Combinations

Objective: The objective of the nutrient analysis is to enhance a recipe of a typical meal or prioritize foods to promote what will meet the nutrient requirements for a target population. Key foods to consider using during the analysis are drawn from the previous steps, including the secondary data review, market analysis, community FGD, meal preparation exercise, and pile-sorting exercise. Considerations for the nutrient gaps in the target population, scenarios are run to identify possible modifications to current feeding practices. These improved food combinations or additions to typical meals are then tested through household behavior trials to ensure they are available, accessible, and acceptable in the program context.

The following steps are to be carried out by your target age group (6–11 months, 12–23 months, 1–3 years, 4–5 years) depending on your programmatic goals and context. The reason for forming different program recommendations is two-fold: (1) based on global recommendations that for optimal child development to "Gradually increase food consistency and variety as the infant gets older, adapting to the infant's requirements and abilities," and to "Increase the number of times that the child is fed complementary foods as he/she gets older,"[10] and (2) to align with how children are currently fed in the context, increasing the likelihood of adoption of improved practices.

To achieve this objective, follow the steps below when conducting nutrient analyses using the nutritional calculator. Using the foods that were identified in the steps in components 1–3 (review of secondary data, market mapping, community FGDs, meal preparation exercise, pile-sorting exercise) run scenarios using different combinations of foods, including the food groups relevant for your situation. Building on typical meal preparation by adjusting meal preparation practices or adding in new foods help fill nutrient gaps in the target population. Note that how the meal was prepared will affect whether it needs to be modified before the nutrient analysis. If the recipe is prepared exclusively for an individual (example, a young infant), minimal modification is needed. If the recipe was prepared for the whole family, then each of the ingredients will need to be scaled down to the portion consumed by the individual. In some cases, a combination of the two methods will be used to prepare a meal, such as using the family pot for porridge and adding additional ingredients directly into the child's bowl.

Considerations when running the analyses—

- Where foods differ across geographic locations or cultural factors vary (religious practices, livelihoods) run scenarios for each location (i.e., district).
- Run scenarios where each combination uses foods from different foods groups. For example, if you organized foods by four food groups (staples, ASF, legumes, fruits/vegetables) ensure at least two food groups are added to the common staple used in meals (porridge), thereby creating meals with foods from three food groups.
- Across the various scenarios, select combinations of foods from across all the food groups.
- Meet close to 30 percent of the nutrients of concern in each serving.

[10] Guiding Principles for Complementary Feeding of the Breastfed Child. For the average healthy breastfed infant, meals of complementary foods should be provided 2-3 times per day at 6-8 months of age and 3-4 times per day at 9-11 and 12-24 months of age. Additional nutritious snacks (such as a piece of fruit or bread or chapatti with nut paste) may be offered 1-2 times per day, as desired. Infants with low intakes of breast milk would require the higher meal frequencies (3 at 6-8 months and 4 thereafter). https://iris.paho.org/handle/10665.2/752

- Use foods in the scenarios from the pile-sorting exercise that are considered most available, least expensive, most likely to give to a child, and caregivers said they would be willing to try adding to common meals.
- When creating new combinations, consider frequency of offering foods based on those that can be provided every day and those that can be fed several times to once a week.
- The modifications may aim to improve quantity (amount per meal), frequency of meals, and variety of nutrient-rich foods for both meals and snacks.
- Consider how your analyses align with country national IYCF policies and guidelines, as well as global guidelines for IYCF.

The modifications may include simply aiming to achieve feeding one additional food to the typical staple in the morning (i.e., an ASF or insect). It may include aiming to increase the amount of a specific food that is offered. Or, it may include feeding a child a nutrient-rich snack from the list of vitamin A–rich foods in the area. Examples are included below. The outcome of these exercises will be a nutrient analyses of combinations of locally available foods and modified practices to be tested in component 5.

Examples:

Children 6–11 months of age

Example 1: Millet (40g) + mopane worms (10g) + cow's milk (20g) + sugar (5g) provides 64% DV calcium, 83% DV iron, and 43% DV zinc.

Example 2: Maize (50g) + moringa leaves (5g) + kapenta (15g) + sugar (5g) provides 211% calcium, 28% iron, and 25% vitamin A.

Children 12–23 months of age

Example 1: Maize (80g) + moringa leaves (20g) + kapenta (30g) + sugar (5g). One meal provides 322% DV calcium, 95% DV iron, 33% DV Zinc, and 177% DV vitamin A.

Example 2: Millet (75g) + mopane worms (25g) + cow's milk (50g) + sugar (5g). One mal provides 81% DV calcium, 311% DV iron, 116% DV zinc, and 9% DV vitamin A.

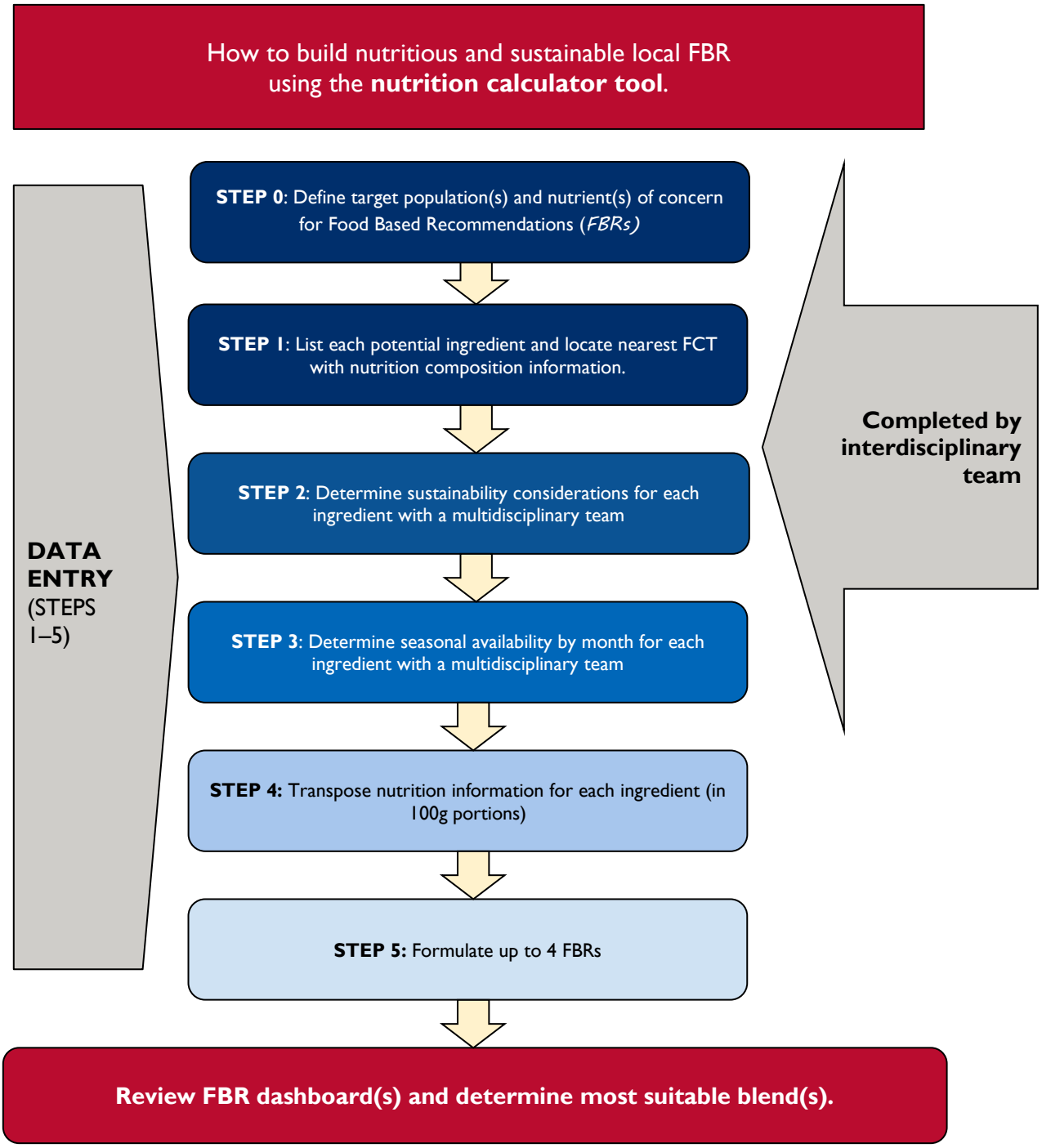
Nutrition Calculator—General Instructions

These instructions guide users through the use of the nutrition calculator to develop and refine local FBRs. The nutrition calculator is a tool to develop culturally responsive, seasonally available, and nutritious FBRs. A wide variety of stakeholders and applications can use this tool, potentially targeting a diverse range of populations. This tool relies on data sourced from food composition tables (FCTs), and can support up to 10 unique foods, as well as sugar and salt. It can also support the addition of fortified ingredients and supplements (e.g., multivitamins). We will use a step-wise approach (**steps 0–5**) to guide users through the process of developing FBRs, which should be completed with a multidisciplinary team of experts. This tool is not to be used for nutrition labeling or other applications that require high precision.

Principles for Use by Implementing Partners

- This nutrition calculator tool is focused on finding the best ingredients to promote dietary diversity using local/regional ingredients that are culturally responsive to the unique population. This tool is one component of a *Global Guide on the Use of Local Foods for Improved Nutrition*, which includes a set of tools and assessment guides to help determine the most appropriate blend.
- This nutrition calculator can be used for two main purposes:
  - to develop FBRs for use by **households** to support the preparation and consumption of more nutritious meals; in this case, the FBRs can be considered a recipe for food preparation
  - to develop FBRs for use by **food processors** to develop a blended food product that can be made commercially available to targeted consumers. In this case, the FBR is often processed in the form of a fortified flour-based blend that is, for instance, sold in single-serving sized packages.
- It is important to start the review and analysis of FBRs early in the process as part of a field-based research, so it is useful throughout the project (e.g., across the five-year project). This way different project components can support the production, promotion, and consumption of nutritious foods.
- Users are encouraged to consider national nutrition policies and guidelines (e.g., fortification), and ensure a high level of consultation through the application of community-based assessments to determine the most suitable FBRs for the targeted population in a certain socio/agro-ecological area.
- The tool should be used as part of an iterative process, and, therefore, is not fixed. This tool provides flexibility for the best local FBRs. It is not the final solution but to guide you close to the answer.
- The maximum number of ingredients is 10, but ideally FBRs will contain five–seven foods, excluding sugar and salt. Limiting the number of ingredients to 10 aims to encourage accessibility and the year-round availability of FBRs for households and/or food processors.
- While the tool can be applied to determine the most favorable FBRs for different target populations, it should ideally be applied to a well defined geographic zone with a specific socio-agro-ecology or different geographic zones with comparable agro-ecological zones given that availability, accessibility, and affordability of food will differ from one area to another. (See figure 1.)

Figure 1. Building Nutritious and Sustainable Local FBRs



STEP 0: Define target population(s), nutrient(s) of concern for FBRs and target intervention zone.

Objective(s)	• Define the target population. • Determine the nutrients of concern. • Define the target intervention zone
Information needed	• Target population age range and gender. • Specific nutrients of concern for the target population. • Target intervention zone local socio/agro-ecology

To optimize consumption of a healthy diet, it is important to first identify the unique nutritional needs of your target population. Answer the following questions with your team of multidisciplinary experts.

- Who are the target population(s) for this FBR? **(rows 2–3)**
- What are the unique nutritional needs in your project's targeted implementation area and for your target population(s)? **(rows 4–5)**
  - Specific nutrients of concern for your local context may be available using the following resources.
    - Food Systems Dashboard
    - StatCompiler (MICS, DHS)
- What is the geographic location of the target intervention zone (e.g., village, district, region, etc.) as well as the key elements that make up the specific agro-ecology in this zone.

Step 1: Listing Potential Ingredients

Objective(s)	• Select top ingredients (up to 10, excluding sugar and salt) for consideration in the FBR.
Information needed	• A refined list of ingredients that are accessible for use in a FBR, in your local content. • The form of each ingredient, when added to the FBR. • Each ingredient's unique food group. • The source for the nutrition composition of each ingredient (e.g., food composition tables).

- Free list the **common name** of each potential ingredient for your FBR in **column B.** This includes local, regional, and imported ingredients (e.g., wheat, millet, dark-green leafy vegetables, millet, cassava, tiger nuts, soy, sesame, etc.). Supplements and pre-mixes will be added during step 4.
  - Add the local name, if different than the common name, in **column C**.
  - Add the scientific name for each ingredient in **column D**. Use a simple Google search.
  - Note: Enter only the common name for each ingredient in step 1, as the ingredient names will be copied throughout the rest of the nutrition calculator tool.

- Add the form each ingredient is in before adding to recipe/formulation in **column E** (fresh/raw, dried, flour, paste, baked, roasted, smoked, boiled/cooked, or powdered).
- Classify each ingredient according to its "food group" in **column F**.
  - For food classification guidance, please refer to the FAO MDD-W Guide.
- Locate the most comparable and most recent FCTs to your targeted geographic area that contains the nutrition composition of each food.
  - Most FCTs can be found at FAO INFOODS.
    - Examples include—
      - FAO/INFOODS Food Composition Table for Western Africa (2019)
      - USDA Food Central Database (2021)
      - Kenya FCT (2018)
      - Australia Searchable FCT (2021)
  - Commercially prepared foods and blends should have a nutrition facts panel; however, this panel usually only provides limited nutrition information for informing FBRs.
  - If nutrition composition cannot be located for a specific ingredients, you can—
    - Review alternative (local) resources—food processors and/or other agencies, including local laboratories may have already analyzed the composition of a certain ingredient.
    - Substitute the nutrition using a similar ingredient item (e.g., spinach for cassava leaves).
    - Send the final FBR sample to a local laboratory for nutritional analysis (cost per FBR—U.S.$1,000). This is especially important if the FBR will be used commercially.
- List the geography and/or agro-ecological district/region for each food in **column G.** This step considers where each food is sourced from to determine the applicability of the FBR in various geographies and regions.
- Write the FCT name for each food in **column H**.
- Add the hyperlink to the FCT source in **column I**.
- Move on to **step 2** (row 19).

Step 2: Determine Sustainability Factors for Each Food

Objective(s)	• Identify and form an interdisciplinary team of food system professionals. Be sure to include local experts from producers (agriculture), food processors, food suppliers (marketing and retail), livelihood experts (gender, finance, youth, SBC, monitoring and evaluation), and nutritionists, as well as any other relevant experts. • Host a workshop (~60 minutes) of multidisciplinary food systems experts to determine the sustainability score of each individual food.
Information needed	• Input from each expert on the environmental, social, and economic sustainability factors to rank each food (high, medium, low, NA). Selecting sustainability factors should not require primary data collection.

1. Move onto **step 3** (row 31).

Step 3: Determine Seasonal Calendar of Availability and Affordability (by month) for Each Ingredient

Objective(s)	• With the same team in step 2, determine the primary sourcing and the seasonal calendar of availability (by month) for each food. ○ Food availability is defined as "The availability of sufficient quantities of food throughout the year, supplied through domestic production or imports."
Information needed	• Insights from experts on each food's specific seasonal availability. Seasonality information should not require primary data collection. • Implementing partners should be considerate of price fluctuations throughout the year and how that impacts accessibility and affordability of each food.

1. With the same group of experts in step 2, label the source of each food as *locally sourced, domestically sourced, imported, or mixed* in **column C**.
   - **Locally sourced** = being within the "district" (e.g., immediate locality)
   - **Domestically sourced** = within the country, but another region/agro-ecological zone
   - **Imported** = brought in from a neighboring country or another continent
   - **Mixed** = sometimes available locally/domestically, sometimes imported.
2. Collectively determine the seasonal availability of each food using *"high, medium, low, or NA"* for each month in **columns D–O**.
   - **High** = fully available during the full month
   - **Medium** = somewhat available during the month
   - **Low** = little availability during the month
   - **NA** = not available (NA) during the month.
3. Move on to **step 4**.

Step 4: Enter the Nutrition Composition for Each Ingredient

Objective(s)	• Enter each ingredient's unique nutrition composition data from the FCTs identified in step 1. — Ideally, this step should be double-checked by an additional colleague to ensure accurate transcription.
Information needed	• Nutrition composition data from your nearest food composition table(s). — All foods must be entered in their correct form (e.g., fresh, dried, etc.). — All foods must be entered in 100 gram quantities.

1. Please enter data EXACTLY as it appears in the selected FCTs in **cells C45–L68.**

> **(g) = grams**
> **(mg) = milligrams**
> **(mcg or µg) = micrograms**

— *Note:* If the food does not have recorded nutrition composition data, you can—

- find the closest available substitute (e.g., spinach for wild greens)
- consult with a local laboratory to conduct a nutrient analysis of the food.

2. OPTIONAL FORTIFICANTS

— If sugar and/or salt is fortified, add each fortified nutrient in columns M and N (per 100 grams of salt and/or sugar).

— If a supplement (e.g., dried leaf powder) or multivitamin is added, add the name in cell **O44**, and the nutrition composition in **cells O45–O68**.

3. Move on to **step 5** (row 70).

Step 5: Recipe Formulation

Objective(s)	• With your team of experts, develop and iterate up to four unique FBRs, based on the included ingredients. — Choose the preparation method for each FBR (row 72). — Add the total quantity of each food (in grams) for one serving.
Information needed	• The total quantity of each food, in grams, for each FBR. This includes up to 10 unique foods, added sugar, added salt, and an optional supplement.

1. In this step, you can build up to four unique FDRs from the foods listed in step 1. Each FBR should support one serving of food for your target population.
    - **IMPORTANT**: Start by selecting the expected preparation method for each FBR from the drop-down menu (fresh/raw, dried, baked, roasted, smoked, boiled/cooked, or powdered) in **row 72**.
    - Next enter the total quantity of each food (in grams) for **ONE SERVING** for each FBR in **row 73-84.**
2. Double-check that all required cells (in yellow boxes) are fully completed from steps 0–5.
3. Review the nutritional composition at any time by viewing the respective **FBR (#) dashboard tab.**

Reviewing the FBR Dashboard(s)

1. Review each FBR dashboard, which will appear on four separate tabs. Dashboards feature the nutrient profiles for various populations (daily value percentages), sustainability factors, and annual seasonality for each FBR.
    - *Raw FBR ingredients* show the total raw nutrient quantity for each FBR. This does not take into account cooking, which reduces heat-sensitive nutrients.
    - *Cooked FBR (with retention factor)* shows the total nutrient quantity after preparation (e.g., the method chosen in step 5), which is the number each daily value's percentage is based on.
    - Daily value % (DVs) are the recommended amounts of nutrients to consume each day, specific to each population.
        - When the 30 percent mark is reached for any nutrient (by population), the calculator will automatically highlight those cells in green. Ideally, the FBR will reach ~30 percent DVs of nutrients of concern for your target population.
        - Cells that have an NA denote that a daily value has not been determined for this population.
        - OPTIONAL: If your population falls between the pre-set ranges, users can add their own DV percentage for a specific population in **column R**. The results from this custom DV will appear in **column S**.
2. Select the most appropriate FBRs for your context's unique nutritional needs, food availability, and sustainability factors. This selection process should be based on each FBR's daily value (percent) for each nutrient of concern for your target population.
3. Move to the next tool(s) to determine the most suitable blend for your context (e.g., cost analysis, consumer acceptability, shelf life, etc.).

Section V: Testing of Recommendations

Objective: Using Trials of Improved Practices we will—

1. Test participants' responses to recommendations for improving behaviors (e.g., modified feeding practices, inclusion of new ingredients, altered preparation) and determine which are most feasible and acceptable.
2. Investigate the constraints on participants' willingness to change behaviors and their motivations for trying and sustaining the new practices.

These recommendations have the potential to positively impact the nutritional status of infants and young children and require a change in behavior by the caregiver(s) or supporting actors. After the recipe enhancement exercise, the team will have potential recommendations for improving traditional recipes to enhance their nutritional quality or new recipes with commonly used foods.

This step tests the acceptability and feasibility of the recommendations. After barriers and/or facilitators to adopt the improved recipes are identified, modifications can be made before promoting the improved practice through designated project activities. The test of recommendations is necessary for observing how caregivers and supporting actors carry out proposed recommendations under typical conditions. It is consultative—bi-directional, involving participants in the decision making about the behaviors to promote. The testing is carried out through a household behavior trial at the homes of the selected participants. Results from the trial will be used to modify the recommended practices to increase the likelihood of adoption.

To achieve this objective, the following phases will be carried out to test the improved practice (see table 4):

Table 4. Phases to Test the Improved Practice

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Set the Stage	**Establish Needed Background**	**Try the Behaviors**	**Assess the Outcomes**	**Analyze and Make Recommendations**
1. Understand country context based on existing information 2. Make ideal behavior recommendations 3. Draft initial trials of improved practices (TIPs) menu	1. Gather information to understand household problems and current practices through interviews and observations 2. Refine list of problems 3. Tailor TIPs menu recommendations	1. Counsel on possible behaviors to try 2. Negotiate 1–2 new practices that the participant is willing to try 3. Track distribution of practices	1. Understand what participant was and was not able to do 2. Learn from the participant about the most important barriers, supports, and perceived benefits 3. Solicit suggestions from the participant about how to modify, promote, and ensure adoption.	1. Summarize critical information 2. Determine strategies and interventions 3. Determine measures and milestones

Phase 1: Set the Stage

Document key country context issues as they relate to your program or project. Do this step before going to the field, during the first one to three weeks of engagement. (See table 5.)

- Detail essential information on the households that you presently know.
- Summarize specifics on the overarching health issue(s) you are addressing.
- Summarize specifics on any solutions that have been tried to date for this overarching health issue(s) to be addressed.
- Detail essential information on what households want in demand and use activities.

Table 5. Document Key Elements

Specifics about the household: • number of children under five • those living in the household and their relationships • names and ages of children • occupation of respondent and spouse. **Specifics on demand and use channels:** • how they receive information about the health topic and the solution • where/how they prefer to receive information • other ways to receive information not used but think should be used/considered. **Specifics on the main solution:** • what it is/might be • how to do it • whether they feel they can do it • what they do now and why	**Specifics about the overarching health topic:** • health problems of children, of their children • their worries/concerns over these health problems • did their children have this problem during a certain time frame • the outcome of having had this health problem • how they feel about their child having this health problem • different types of "versions" they have had of this health problem • causes of this health problem • whether and how to prevent this health problem.

Household Characteristics	Overarching Health Issues	Solutions Tried to Date and Outcomes	Reported Demand and Use Information Desired by Households

Phase 2: Establish Needed Background

In this step of phase 2, you will—

- Establish the current problems.
- Assess current practices.
- Learn more about the participant, their family, and how they solve problems.
- Encourage participants to identify what they can do to solve a problem. (See table 6.)

Before you start your TIPs field research, you might want to conduct other research:

- The existing research was insufficient to really understand the overall context and situation in which the practices to be proposed will take place.
- To be successful, the practices to be proposed require community and collective action, as well as household action.
- It is important to understand the influencers of your TIPs participants to best help participants select and try behaviors.

Table 6. Establish Needed Background

What Might You Use?	Why Might You Use It? To Better Understand:	With Whom Might You Use It?
In-depth interviews	Beliefs, motivations, and constraints related to current practices	• Household members of TIPs participant • Health workers • Leaders • Community influencers
Observation	Actual behavior and real situation and access to what is needed to practice the ideal behaviors	• Households in which TIPs participants live • Communities in which TIPs participants live
24-hour Recall	Practices that one can immediately remember from the day before	• Household members of TIPs participant
FDGs	Issues impacting a household's ability to adopt behaviors	• Health workers • Leaders • Community influencers
Collective action trials	Beliefs, motivations, and decisions of the collective community	• A whole community
Community walk	Community situation and access	• Leaders • Community influencers

Review the information you presently have available to you—does it provide what you need to know? If not, will TIPs fill in all the gaps? If not, what other research might you need to conduct to ensure that you understand your context and the problems?

Detail what method(s) you will use, with whom you will use it, and why you think it is needed. (See table 7.)

Table 7. Sample #1

What Might You Use?	Why Might You Use It? To Better Understand:	With Whom Might You Use It?

Develop your questionnaire:

Your questionnaire needs to—

1. Tell the mother about TIPs, explaining what TIPs is, and how the process works.
2. Explain that TIPs provides a way to learn about how participants make decisions about healthy practices for themselves, their children, and their families and how these can help them find practical ways to improve practices.
3. Ask the participant about (1) him/herself and him/her family and how he/she and the family are doing, (2) him/her children and how they are doing, and (3) health situation in the home and community, in general.
4. Ask specific questions about each behavior that could possibly be tried.

Phase 3: Try the Behaviors

During phase 3—

- Counsel on possible behaviors to try.
- Negotiate one–two new practices that the participant is willing to try.
- Track distribution of practices. (See table 8.)

Table 8. Sample #2

List All Priority Behaviors to Choose from in This Column	Complete During Phase 3–Day 2 Fieldwork		Complete–During Phase 4–Follow-Up Visit–Day 16 Fieldwork			
Recommended Practice	No. of people asked	No. of people willing to try	No. of people who tried	No. of people who were able to carry out agreed practice	No. of people able to do practice through the trial period	No. of people who plan to continue

Phase 4: Assess the Outcomes

During phase 4—this third and final field visit—the follow-up visit, researchers will seek to—

- understand what participant was and was not able to do
- learn from the participant about the most important barriers, supports, and perceived benefits
- solicit suggestions from the participant about how to modify, promote, and ensure adoption of the new practices.

WHAT? Researchers will—

1. Reconfirm practices agreed upon (recall of trial from participant).
2. Gather detailed information **on each practice tried**:
   - what happened
   - difficulties encountered
   - benefits perceived
   - adjustments made to the practice to be able to continue to practice it (make it manageable)
   - motivations to continue regardless of the ease or difficulty of practice
   - advice participant would give to friends, family, and others.

HOW? Researchers will—

1. Greet the participant politely and warmly.
2. Explain again that trials of improved practices provide a way to learn about how participants make decisions to improve their health and the health of their families (more specific, depending on the topic), and they help find practical ways that practices can be improved.
3. Ask participant to confirm the practices they thought they could try over the past time.
4. Explain that the practices they will discuss today are recommendations based on information the participant gave them during the initial home visit.
5. Ask the participant if he/she understands or has any questions that require further explanation.

What must be documented to assess the overall outcomes?

Assessing the outcomes requires—

- verifying what priority behaviors were tried, adopted, and modified during the trial
- illustrating the most common problems
- explaining new positive practices
- describing acceptance, trial, adoption, and rejection reasons
- then based on the above, describing similarities and differences across the priority behaviors tried. (See table 9.)

Table 9. Sample #3

Assessment Summary									
LOCATION:									
Priority Behaviors	**Tried (yes/no)**	**Adopted (yes/no)**	**Modified (yes/no) (explain how)**	**Reasons for Accepting to Try and/or Adopt Priority Behavior**	**Reasons for Rejecting to Try and/or Adopt Priority Behavior**	**Most Common Problems**	**New Positive Practices Emerging (if none, note N/A)**	**Similarities (note what and to what other priority behaviors)**	**Differences (note what and to what other priority behaviors)**

Phase 5: Analyze and Make Recommendations

During this final phase, phase 5, the team will—

- Summarize critical information uncovered through the field research.
- Determine strategies and interventions the program will use moving forward.
- Determine measures and milestones to track progress toward achieving the program's objectives. (See table 10.)

Table 10. Sample #4

Assessment Summary									
LOCATION:									
Priority Behaviors	**Tried (yes/no)**	**Adopted (yes/no)**	**Modified (yes/no) (explain how)**	**Reasons for Accepting to Try and/or Adopt Priority Behavior**	**Reasons for Rejecting to Try and/or Adopt Priority Behavior**	**Most Common Problems**	**New Positive Practices Emerging (if none, note N/A)**	**Similarities (note what and to what other priority behaviors)**	**Differences (note what and to what other priority behaviors)**

Step 1: Summarize and analyze findings.

1. Summarize the major issues around your topic when the work starts.
2. Complete household summaries (what was recommended, tested, and adopted).
3. Describe household member reasons for accepting, trying, adopting, or rejecting the recommendations.
4. Analyze qualitative information on practices (highlighting similarities and differences).
5. Summarize assessments (highlighting common problems and positive practices).
6. Summarize results of TIPs (what worked and what did not).
7. Summarize critical information that programs can use:
    - How to reach households.
    - What positive practices can be taught by mothers and household members in the community.
    - How to motivate household members to change their behavior.
    - How to overcome major barriers to behavior change.
    - What specific language and words can be used to convey concepts.

Step 2: Compare and contrast the findings in different communities, age groups, and types of households by sorting the summaries into piles by various criteria.

Step 3: Highlight significant contrasts (by rural or urban, first-time versus experienced, etc.) and include specific points or quotes mentioned by respondents that illustrate the conclusions.

1. Summarize the results of the assessments. Describe common patterns based on region, age, access, etc.
2. Summarize the results of testing the specific practices. Tally the number of times each recommendation is suggested, agreed to, tried, and adopted. Describe adaptations made.
3. Interpret these numbers based on the reasons for acceptance or rejections (motivations or barriers). (See table 11.)

Step 4: Use the analysis to make program-specific recommendations.

Table 11. Sample #5

Recommendations and Measures of Success						
Priority Behaviors to Promote	**Indicators to Measure a Change in Priority Behaviors (behavioral outcome indicators)**	**Factors the Strategies Will Overcome or Leverage to Achieve These Priority Behaviors**	**Milestones to Measure to See if Factors Are Being Overcome or Leveraged (factor outcome indicators)**	**Possible Supporting Actors and Their Actions to Involved**	**Possible Strategies or Interventions**	**Indicators to Measure achievement of Strategies or Interventions (process and output indicators)**

Section VI: Apply Learning to the Program

Recommendations to be used in programs will depend on the objectives of the program and sectors through which interventions are implemented. Recommendations should be drawn from the learning generated in each step of the FBRs development approach. This includes the review of secondary data and collection of primary data at the community and household level. Recommendations should focus on addressing both barriers to improving the key behavior, as well as facilitators to promote throughout various program activities. Recommendations can be organized by general recommendations and descriptions of the various program platforms through which they could be promoted.

General recommendations for the Amalima Loko program to focus on (by age group):

- quantity (amount/meal and frequency)
- variety of nutrient-rich foods
- for both meals and snacks
- other factors (determinants) as outlined in earlier steps (i.e., helping with household chores, food purchases, food preservation).

Program platforms through which to address determinants:

- Care Groups
- Lead Farmer Groups
- Community Health & Nutrition dialogues
- Male Champions.

Section VII: Use the Training Guide for Programming

This brief training guide prepares leaders of groups, such as Care Groups and Male Champions, to effectively conduct group sessions that will improve children's diets through locally available nutritious foods.

Purpose of the Training
• Support groups to use the program materials on young children's diets with locally available food. • Demonstrate how group leaders can conduct effective group sessions (discuss, practice, reflect, plan for action). • Give and receive feedback on the effectiveness of activities.
Participants
Care Group Lead Mothers and Promoters; Male Champion leaders; other group leaders as relevant. Each training may include approximately 20 participants.
Length of Training
This training is one-day and prepares group leaders to facilitate interactive sessions with their existing groups on locally available nutritious foods to improve young children's diets.
Learning Outcomes
• Group leaders will demonstrate an effective approach for conducting group sessions on locally available food for young children. • Group leaders will be able to identify the specific needs of group members and articulate strategies for adapting content to meet those needs. • Group leaders will have strategies for addressing barriers that may arise for group members to take actions they prioritize.

Training Agenda

Welcome and Introductions [30 min]

- Facilitators and group leaders introduce themselves:
  - Share: your name, role, how long you have been a group leader, and one thing that a child does to make you smile or laugh.
- Review the purpose and objectives for the training.
- Describe the types of sessions that group leaders will conduct.
- Discussion: Think of a time when you learned something effectively. What was the situation? How did the person teach you? What made it easy to learn?

- Discuss the importance of tailoring to the learners, time of year, and the context. The best learning takes place when facilitators make the content relevant to the learner's actual context and challenges.

Facilitation Skills for Conducting Effective Group Sessions [90 min]

- Be open yourself.
- As group members discuss and share, be sure to share your personal answers, too. This is an effective way to build trust and connection with your group members.
- Explain clearly.
- Break down the session into small, clear steps—experts often skip steps or make incorrect assumptions about what participants know.
- Share the rationale for each step—people often learn better when they understand the "why."
- Do not just give information or tell group members facts. Set up the activity and ask participants to discuss together how to solve problems. This is the role of a facilitator. Peer sharing and hands-on practice is the most effective way for the participants to learn.
- Remember to ask questions and listen more than you talk. Your groups want you to really listen and appreciate their ideas and contributions.
- Prepare the content in advance.
- This training includes multiple activities for a 1.5 to 2-hour session. Select an activity based on the interest of your groups. Try to use all the activities over time, as your group meets.

Introduction of the Program Materials. [60 min]

- Ask participants to read the briefs. Ask questions and allow participants to answer.

Conduct Teach-Back Session [180 min]

- Divide participants into two groups.
- Ask each small group to select and practice one activity (below).
- Ask each small group to facilitate their activity for the larger group.
- Peers observe and give feedback.
- Continue the process with the second group.

Plan How to Use in Groups [60 min]

- Each group leader can prepare an action plan to use with their groups and to share in plenary.

Group Activities to Improve Young Children's Diets

Activity 1: Seeing Is Believing

Preparation: [Using the program material] Select one or two recipes to prepare. Ask participants to bring cooking materials and foods and a bowl to the session. Bring measurement tools.

Part 1: Discussing Our Children

Facilitate a discussion among the group, including yourself, by asking questions such as—

- What is special about children in the first two years of life?
- What is the role of nutritious foods in children from six months growing well and staying healthy?
- What are some nutritious foods available in this community for most families?

Part 2: Practicing Skills

Explain that today you will prepare recipes using very nutritious food that is available here in our community. Ask participants to decide who will prepare the food, who will cook, etc.

Give the instructions for the recipe: In each bowl, add sadza or millet. Also add one to two of the other foods selected (from the program material): ASFs, legumes, and fruits or vegetables. Follow the amounts needed for the age of the child.

Taste the food. Thank the cooks!

If children are present, **feed** each child, using the amounts in the bowl needed for the age of the child.

- Encourage caregivers to talk with the child while feeding.
- Observe how the child likes the food.
- (Note, if a child has low appetite, do not force the child to eat. When possible, try to encourage small tastes—every bite counts).

Part 3: Reflecting Together

- How did the food taste?
- Are you surprised that all these foods are here in the community?
- If children are present, did you observe how much the child can eat from their own bowl?
- What can family members do so that children eat like this from the age of six months, all year?
- What can fathers do to help their children eat like this from the age of six months, all year?

Part 4: Making Plans

- What specific actions will you try with your children or to help families with children 6–23 months to try each day?
- What challenges could families face in preparing food like this each day?
- How can we support the families to overcome the challenges and try every day?
- How can we encourage each other, as champions for nutrition, to follow these plans?

Activity 2: Reaching for the Stars

Part 1: Discussing Our Children

Facilitate a discussion among the group, including yourself, by asking questions such as—

- What is special about the first two years of life, especially from 6–23 months?
- How do you as a parent or grandparent feel when the child eats different types of foods each day? Do you notice differences when this happens?
- What nutritious local foods are available in this community for most families?

Part 2: Practicing Skills

Explain that today you will discuss healthy foods for children to eat each day and that are available locally. Young children until the age of two have special needs for growth and development. But, their stomachs are very small so they cannot eat much at each time. (Show your hand as a fist.) They need a mix of different foods each day to get the nutrition necessary to grow well and stay healthy.

The types of foods are—

Divide participants into small groups of three to five people.

1. **Ask** each group to make a menu for one day (using the foods in the program material) for a child 6–11 months. Each food (from the program material) will have one star. Be sure to select one–two foods from each of the four types that are realistic to feed the child *this season*. Count the stars in each group's menu.
2. **Congratulate** the group.
3. **Ask** each group to make a menu for one day (using the foods in the program material) for a child 12–23 months. Select one–two foods from each type that are realistic to feed the child this season. Count the stars in each menu.
4. **Congratulate** the group.
5. (As time permits, practice preparing one of the recipes in the program material.)

Part 3: Reflecting Together

- How would you feel if you could identify so many good foods for young children?
- What should others in your community know about feeding children 6–23 months?

Part 4: Making Plans

- What specific actions will you try with your children or to help families with children 6–23 months to try each day?
- What challenges could families face in giving young children healthy snacks twice a day?
- How can we support the families to overcome the challenges and try every day?
- How can we encourage each other, as champions for nutrition, to follow these plans?

Activity 3: Gifts for Our Children

Part 1: Discussing Our Children

Facilitate a discussion among the group, including yourself, by asking questions such as—

- What type of parent do you want to be known as? What do you want your child to say about you as a parent when they are grown?
- Are children gifts to the family or do we give gifts to children as parents and grandparents?
- What colors of food do young children like?
- What nutritious local foods are available in this community for most families?

Part 2: Practicing Skills

Explain that today you will discuss healthy foods for children to eat between meals: snacks. Young children until the age of two have special needs for growth and development. But, their stomachs are very small and they cannot eat a lot at each time. Healthy snacks help children get nutrition that they need to grow well and stay healthy. Healthy snacks are a gift to show your love to the child and to please the child. It is also a way to give children an opportunity to show their developing motor skills by self-feeding snacks. You might be surprised to learn how many locally available, nutritious snacks can be fed to young children!

Divide participants into small groups of three–five people.

1. **Ask** each group to list all the locally available foods that families could give to children 6–11 months, and for children 12–23 months. Then ask each group to note which are available at different times of the year.
2. **Compare** lists and seasonal availability between the groups. Add foods not mentioned from the program material.
3. Next, **ask** each group to consider how each family member can help prepare and feed children a healthy snack. One group could select grandmothers, one could select fathers, and one could select older siblings, for example. Or, the groups could discuss all family members.

Congratulate all groups.

Part 3: Reflecting Together

- How would you feel now about giving a child a healthy snack?
- What should others in your community know about healthy snacks for children 6–23 months?
- Is it surprising to see how many healthy snacks are locally available for children?

Part 4: Making Plans

- What specific actions will you try with your children or to help families with children 6–23 months to try each day?
- What challenges could families face in giving young children healthy snacks twice a day?
- How can we support the families to overcome the challenges and try every day?
- How can we encourage each other, as champions for nutrition, to follow these plans?

Activity 4: Champions of Children's Diets

Part 1: Discussing Our Children

Begin by facilitating a discussion among group members, and yourself, by asking—

- What would you like families to know about feeding children starting at six months?

Part 2: Practicing Skills

Divide participants into small groups of three–five people.

Give each small group a scenario to practice. Ask each group to prepare in 30 minutes.

1. **Home visit** to a family of a child 16 months of age. During the home visit, you ask about what the child usually eats. The family explains that the child eats what others eat. You learn that the child eats from the same dish as others.

   How could you help this family (the mother and others in the household) feed the child from their own bowl? How would you help this family add healthy foods to the child's meal?

2. **Home visit** to a family of a child eight months of age. During the home visit, you ask about what the child usually eats. The family explains that the child eats porridge. If there is other food available, they might add that. The family says the child has a low appetite.

   How could you help this family (the mother and others in the household) feel confident to find other nutritious foods from the other three types and feed the child with patience?

3. **Meeting a friend** who has a child 11 months of age. You see that the child often eats packaged sweets and then eats very little of the meal.

   How could you encourage this family (the mother and family members) to feed the child healthy snacks?

4. **Seeing an opportunity** when you hear that a Village Savings and Loan Association group wants an income-generating activity. You could see the potential in having local groups make very well dried and pounded mopani worms or moringa, for example.

   How could you encourage a group, or a market vendor, to try making nutritious foods for young children that could be available all year?

Invite each small group to share their role play with the full group.

Congratulate all participants for showing they can be champions of children's diets!

Part 3: Reflecting Together

- How did you feel seeing your group members be champions for children?
- What techniques did you see in the role plays that was helpful to support a positive change?
- What other issues on children's diets could you share with our community?

Part 4: Making Plans

- What specific actions will you try to help families improve children's diets?
- How can we encourage each other, as champions for nutrition, to follow these plans?

Activity 5: Role Models in the Community

PART 1: DISCUSSING OUR CHILDREN

Begin by facilitating a discussion among group members and yourself by asking questions such as—

- How many children in our community are under two years of age?

- What are nutritious local foods are available in this community for these children?

Part 2: Practicing Skills

Explain that today you will be role models for the community to improve the diets of young children by preparing a drama, song, or other activity to share.

Ask the group to decide if they will prepare a drama, song, or event for the community. The full group may prefer to prepare together, or small groups could prepare different activities.

Request that they include key points, in addition to others, to convey in a creative way:

- Nutritious foods for children from six months are available in the community.
- It is good for children to be fed four types of food a day from six months.
- In a separate bowl, add these nutritious foods to the child's meal.
- Track how much of the foods children eat by using a separate bowl, even for children over one year.
- Offer healthy snacks twice a day.
- Good nutrition saves worry and costs on health care.

Give the group(s) time to prepare.

Ask the group(s) to practice their drama, song, or event.

Congratulate all performers!

Part 3: Reflecting Together

- What would you like community members to learn from seeing the drama?
- What would you like parents to feel after seeing the drama?
- How can we gather all family members with a child 6–23 months, in that special time of life, together for the drama?

Part 4: Making Plans

- What specific actions will you try with your children or to help families with children 6–23 months to try each day?
- What challenges could families face in giving young children healthy snacks twice a day?
- How can we support the families to overcome the challenges and try every day?
- How can we encourage each other, as champions for nutrition, to follow these plans?

Annex A: Secondary Data Sources

Secondary data relevant to the Amalima Loko program priority behavior *caregivers feed CU5 (age 6–59 months) an adequate quantity (amount/meal and frequency) and variety of nutrient-rich foods for both meals and snacks* can be organized in a spreadsheet listing the name of the report, URL, report date, technical sector to which it relates, main findings and additional comments.

This may consist of national policies, strategies, and surveys; studies and assessments carried out by the current program; resources produced by other nongovernmental organizations working in the same area; and global guidance that can be adapted for the program context.

Annex B: Key Foods List

The Key Foods List will be created from the exercises outlined in section II. This food list combines information on seasonal availability, market mapping (accessibility, availability, and affordability), and community-based FGDs. This will provide a list of foods to consider using when running nutrient analyses and developing program recommendations.

Instructions for the Example Key Food List Table:

Availability

Specify the months in which the food is available with **High** = "H"; max availability during the month; **Medium** = "M"; moderate availability during the month; **Low** = "L"; minimal availability during the month; or **NA** = not available during the month.

Price per unit or LOE:

Indicate the **price** of a **quantity** to be specified (based on last year's memories). This will allow the team to eventually estimate the cost of the proposed FBR and review affordability considerations.

Example: One 50kg bag of maize was $50 in May, June, and July; but the same quantity is $40 during the other months of the year.

If the collection of price per unit data is not possible, then consider providing an indication of the LOE it takes to produce or gather a certain food. Indicate **Low**, **Medium,** of **High** LOE**.**

Example: The mother of the household collects the baobab fruit, however, it sometimes takes the mother more half a day to collect enough baobab fruit for the week (= High LOE). Other wild fruits are available in greater abundance and only require half an hour of the mother's time for a week's worth of fruits (Low LOE).

Origin:

Indicate the origin of the food:

- **Locally sourced** = within the "community or district" (e.g., immediate locality)
- **Domestically sourced** = within the country, but another region/agro-ecological zone
- **Imported** = brought in from a neighboring country or another continent
- **Mixed** = sometimes available locally/domestically, sometimes imported.

***** Please expand this table by adding additional rows for additional food items as needed.*****

Annex C: Meal Preparation Exercise Form

The following template can be used to carry out the meal preparation exercise. It can be adjusted, as needed, depending on the number of age groups for which you are observing typical meal preparations (PAHO and WHO 2013). (See table 12.)

"Today we are here to make meals that are nutritious for young children. We are eager to learn from you about what you typically prepare for young children and learn about new foods that you might be willing to try."

Ask, "How do you cook for your children? Prepare an individual meal? A pot for children only? Does it differ by age? Or a household pot for everyone?" (This determines if you do one recipe preparation or two, differing by age.)

"Please create a typical meal that you serve your child with the foods or ingredients provided (mention what is on the table). We would like to know what is typically available to prepare. Please point out what you would like to use what is available."

"You have up to [xx] minutes to prepare a dish. After you prepare the recipe, we will weigh the food and record the ingredients, and then you will have a chance to feed it to your child."

"After you feed your children we will ask you some questions in a group."

Meeting date and place:

Meal name:

Age of recipient of meal (in months or years, as appropriate):

Table 12. Name of Dish and Weight of Container Used to Hold It

Ingredient	Amount Used in Household Measure	Amount Used in Grams (g)	Edible Portion (yes or no)	Cooked (yes or no)

Ingredient	Amount Used in Household Measure	Amount Used in Grams (g)	Edible Portion (yes or no)	Cooked (yes or no)

Cooking method (record all steps taken by caregiver to prepare the recipe):

Observations during cooking (reactions or comments, etc.):

- Are the ingredients washed?
- Is the caregiver interactive with the child?
- Is the child fed on their own?
- Is the child eating from a communal bowl?

(See tables 13 and 14.)

Total preparation and cooking time:

Table 13. Final Amounts of Dish

Weight (g)	Weight of Container (g)	Net Weight (g)	Total Volume of Food (number and type of household measure)

Table 14. Amounts Served and Consumed

Person Served	Amount Served (weight of container with portion minus weight of container)	Leftover Amount (g) of Food Only	Amount Eaten (amount served minus leftover amount) (g)

Consistency of final dish (liquid, semi-liquid, thick, solid, other)?

- According to caregiver:
- According to staff/personnel:

Observations of acceptability of dish by target population (observations made of tasting):

Observations made by caregiver about the recipe/meal:

- Is this typically what you prepare at home?
- Is it always available (foods)?
- Is it sometimes available (foods)?
- What foods would you like to try adding to this recipe (something they didn't select)?

Annex D: Pile-Sorting Exercise Data Recording Form

Meeting date and place:

Main infant and child nutrition and feeding problems:

Foods presented or food group addressed:

Ask:

- How do you cook for your child?
- Prepare an individual meal, or a household pot for everyone?
- A pot for children only?
- Does it differ by age of child?
- Does it differ for boys and girls?

These answers will determine if you ask one FGD or divide by age groups.

Age of recipient of food (in months or years, as appropriate):

Show cards of the foods in the food groups. Ask the following questions per food group:

For (insert food group), show the cards that you are *most likely* to feed your child. Why?

For (insert food group), show the cards that you are *least likely* to feed your child. Why?

Probe among caregivers:

- Sort the cards by most expensive to least expensive.
- Sort the cards by available all year to rarely available.
- Sort the cards by easiest to purchase in the market to hardest to purchase in the market.
- Sort the cards by easiest to raise at home to hardest to raise at home.
- Sort the cards by easiest to collect in the community.
- Which of these foods could you feed your child every day? How much?
- Which of these foods could you feed your child several times every week? How much?
- Which of these foods could you feed your child only once a week? How much?
- Which of these foods can you rarely ever feed your child? How much?
- Which of these foods could you give your child as a snack?
- Which of these foods would you be willing to add a small addition to your child's own plate/bowl after ladling out food from the pot?
- Which of these foods are preferred foods for boys? For girls?
- Who in the household decides which foods are prepared for your child? And how frequently they are fed?
- Who in the household decides how much to serve your child? And the order children are served?

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