MODULE SIX

Supplementary Feeding for the Management of Moderate Acute Malnutrition (MAM) in the Context of CMAM

MODULE OVERVIEW

The module outlines the issues that should be considered when programmes or services for the management of moderate acute malnutrition (MAM) are part of community-based management of acute malnutrition (CMAM) services.

The module focuses on supplementary feeding. Because most experience in management of MAM in CMAM has been in emergency situations to-date, particular focus is given to supplementary feeding programmes (SFPs), an emergency intervention.

The module addresses who is admitted to supplementary feeding and briefly describes the types of medical treatment and nutrition rehabilitation with supplementary food rations commonly used in supplementary feeding. The module also describes how supplementary feeding fits in as a component of CMAM services. Emphasis is placed on ensuring a smooth referral process among CMAM components (e.g., from supplementary feeding to outpatient care or inpatient care).

This module should be used alongside national guidelines for the management of MAM in SFPs.

The module includes a half-day site visit to a supplementary feeding site.

SUPPLEMENTARY FEEDING FOR THE MANAGEMENT OF MAM IN THE CONTEXT OF CMAM: CLASSROOM

LEARNING OBJECTIVES	HANDOUTS AND EXERCISES
1. Describe Some Types of Programmes to Manage MAM and How this Component Fits Within CMAM	Handout 6.1 Supplementary Feeding to Manage MAM in Emergencies Handout 6.2 Principles of Supplementary Feeding for the Management of MAM
2. Describe Admission to and Discharge from Supplementary Feeding for the Management of MAM	Handout 6.3 Admission Procedures in Supplementary Feeding Handout 6.4 Admission Criteria and Entry Categories for CMAM Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.6 CMAM Classification of Acute Malnutrition Handout 6.7 Supplementary Feeding Treatment Card Cards with Admission Criteria
3. Discuss Medical Treatment and Nutrition Rehabilitation in Supplementary Feeding	Handout 6.8 Medical Treatment Protocols for Management of MAM in Supplementary Feeding Handout 6.9 Nutritional Rehabilitation Protocols for the Management of MAM in Supplementary Feeding Handout 6.10 Food Commodities Used in Supplementary Feeding Handout 6.11 Supplementary Feeding Ration Card
4. Practice Making Referrals from Supplementary Feeding to Outpatient or Inpatient Care	Handout 6.12 Referral Slip Exercise 6.1 Referrals in CMAM
Wrap-Up and Module Evaluation	

MATERIALS

- National guidelines and protocols for supplementary feeding where available
- Copies of local supplementary feeding treatment cards and supplementary feeding ration cards
- Copies of **Handout 6.10 Referral Slip**
- Handouts and exercises
- Cards with admission criteria
- Flip charts
- Markers
- Masking tape

ADVANCE PREPARATION

- Room setup, materials
- Preparation of a set of cards with an admission criterion from inpatient care, outpatient care or supplementary feeding written on each

MODULE DURATION: TWO HOURS OF CLASSROOM FOLLOWED BY A HALF-DAY SITE VISIT

Note: Depending on the needs of their audience(s), trainers may choose to skip or spend more or less time on certain learning objectives and activities. The module duration is an estimate of the time it takes to complete all the learning objectives and activities.

LEARNING OBJECTIVE 1:

DESCRIBE SOME TYPES OF PROGRAMMES TO MANAGE MAM AND HOW THIS COMPONENT FITS WITHIN CMAM

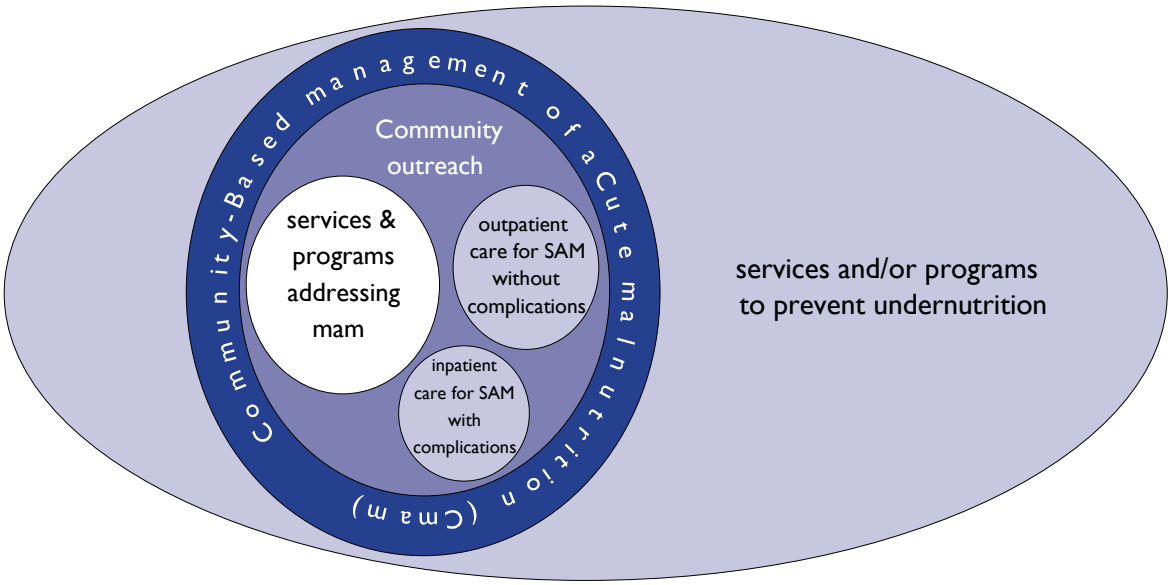
Become familiar with **Handout 6.1 Supplementary Feeding to Manage MAM in Emergencies** and **Handout 6.2 Principles of Supplementary Feeding for the Management of MAM**.

WORKING GROUPS: THE ROLE OF PROGRAMMES TO MANAGE MAM IN CMAM. Form working groups of five participants. Draw **Figure 1** on a flip chart. Ask participants to answer the following questions in groups:

- What is management of MAM in the context of CMAM?
- Why are services or programmes to manage MAM necessary?
- Why are services or programmes to manage MAM the largest CMAM component?

Ask groups to share in plenary. Discuss and fill in gaps.

FIGURE .1. CORE COMPONENTS OF CMAM



PA RTICIPATO RY LECTURE: PURPOSE AND TYPES OF SUPPLEMENTA RY FEEDING Explain to participants that supplementary feeding, as implemented in the emergency context, will be the primary focus of discussion for the management of MAM in CMAM. Ask if anyone can define what supplementary feeding is and whether anyone has experience working with working in supplementary feeding. Fill in the gaps with the definition for supplementary feeding in **Handout 6.1 Supplementary Feeding to Manage MAM in Emergencies.** Explain the difference between blanket supplementary feeding and targeted supplementary feeding, stressing that the supplementary feeding discussed in

this module as part of CMAM are targeted supplementary feeding. Refer participants to **Handout 6.1** and to **Handout 6.2 Principles of Supplementary Feeding for the Management of MAM** for reference in the future.

LO.1

Continue covering the main points in **Handout 6.1, Sections B and C** to explain supplementary feeding as an emergency intervention in the context of CMAM, objectives of an SFP, and when to start and close an SFP. Ask questions to ensure comprehension. Ask participants why it is important to keep supplementary feeding activities separate from outpatient care and the health facility's ongoing activities (answer: because crowds can develop in response to the food rations and this could interfere with the health facility's ongoing activities). Emphasize the following key points as well:

- Supplementary feeding might be part of integrated CMAM services. It may be operated by the same agency or by a different one.
- Effective monitoring and close coordination among supplementary feeding, outpatient care and inpatient care are critical for ensuring a smooth referral process, especially where different agencies are managing the different components of CMAM.
- Bilateral pitting edema, mid-upper arm circumference (MUAC) and weight should be checked at every session to identify children who need to be referred to outpatient or inpatient care. Where weight-for-height (WFH) is used, height is taken every month.
- Children who are discharged from outpatient care should automatically be included in supplementary feeding, regardless of entry criteria and for a minimum stay of two to three months (depending on national guidelines).

GROUP DISCUSSION: MANAGING MAM IN THE ABSENCE OF SUPPLEMENTARY FEEDING. Explain to participants that there are instances where there is no SFP available. This is likely to be the case when outpatient care is part of routine health care in a non-emergency situation or in a food-secure environment, or when some form of supplementary feeding for the management of MAM might be part of child survival interventions or other national health programmes. It also might be the case after an emergency when resources are no longer available for SFPs and/or where the prevalence of acute malnutrition has been significantly reduced.

Ask participants how admission and discharge criteria in outpatient care could be adjusted to ensure that those recently recovering from SAM continue to gain weight. Explain **Point 1** from **Handout 6.1, Section D.** Ask participants how rations can be used to ensure the same goal. Discuss **Points 2 and 3** from **Handout 6.1, Section D** in the same context.

WORKING GROUPS: LINKING TO PREVENTION PROGRAMMES. Ask participants to form working groups by region/district. Introduce **Point 4** from **Handout 6.1, Section D.** Ask participants to reflect on the following questions:

- Is there ongoing supplementary feeding in your district?
- What other programmes exist and how could linkages be established between these programmes and outpatient care?

Ask one group to share their responses and other groups to add new information. Discuss and fill in gaps.

LO.2

LEARNING OBJECTIVE 2:

DESCRIBE ADMISSION TO AND DISCHARGE FROM SUPPLEMENTARY FEEDING FOR THE MANAGEMENT OF MAM

Become familiar with **Handout 6.3 Admission Procedures in Supplementary Feeding, Handout 6.4 Admission Criteria and Entry Categories for CMAM**, **Handout 6.5 Discharge Criteria and Exit Categories for CMAM**, **Handout 6.6 CMAM Classification of Acute Malnutrition** and **Handout 6.7 Supplementary Feeding Treatment Card**.

PARTICIPATORY LECTURE: ADMISSION PROCEDURES IN SUPPLEMENTARY FEEDING.

Describe to participants the bullet points outlined in **Handout 6.3 Admission Procedures in Supplementary Feeding, Section A.** Answer any questions.

ELICITATION AND GROUP DISCUSSION: ADMISSION AND DISCHARGE CRITERIA FOR SUPPLEMENTARY FEEDING. Ask participants to name criteria for admission to supplementary feeding. Many of the criteria will reflect those encountered in **Module 4** as discharge criteria from outpatient care. Write responses on the flip chart. Refer participants to **Handout 6.3 Admission Procedures in Supplementary Feeding** and **Handout 6.4 Admission Criteria and Entry Categories for CMAM**. Review the text and the table, making note of any discrepancies with the answers on the flip chart. Briefly note the admission criteria for pregnant and lactating women, and also that children with MAM who have medical complications are still admitted to supplementary feeding but are referred to medical treatment and return when the medical complication is resolved. Discuss and fill in gaps.

Briefly review **Handout 6.5 Discharge Criteria and Exit Categories for CMAM** and **Handout 6.6 CMAM Classification of Acute Malnutrition** with participants. Answer any questions.

PRACTICE: ADMISSION CRITERIA FOR INPATIENT CARE, OUTPATIENT CARE AND SUPPLEMENTARY FEEDING. Tell participants that you will be holding up a card with a criterion for admission to inpatient care, outpatient care or supplementary feeding. Ask them to identify which service the admission criterion is

relevant to and why. Repeat until participants are comfortable answering or using the reference tables as necessary.

REVIEW: SUPPLEMENTARY FEEDING RATION CARD. Refer participants to **Handout 6.7 Supplementary Feeding Treatment Card** and briefly review the information recorded on it. Discuss how the supplementary feeding treatment card differs from the outpatient care treatment card.

LEARNING OBJECTIVE 3:

LEARNING OBJECTIVE 3: DISCUSS MEDICAL TREATMENT AND NUTRITION REHABILITATION IN SUPPLEMENTARY FEEDING

Become familiar with **Handout 6.8 Medical Treatment Protocols for the Management of MAM in Supplementary Feeding**, **Handout 6.9 Nutrition Rehabilitation Protocols for the Management of MAM in Supplementary Feeding**, **Handout 6.10 Food Commodities Used in Supplementary Feeding** and **Handout 6.11 Supplementary Feeding Ration Card**.

PARTICIPATORY LECTURE: MEDICAL TREATMENT IN SUPPLEMENTARY FEEDING. Explain to participants the routine medicines for MAM: Vitamin A, antihelminth, iron, folic acid and other treatments. Refer participants to **Handout 6.8 Medical Treatment Protocols for the Management of MAM in Supplementary Feeding.** Answer any questions.

READING AND DISCUSSION: NUTRITION REHABILITATION. Ask participants to quietly review **Handout 6.9 Nutrition Rehabilitation Protocols for the Management of MAM in Supplementary Feeding** and **Handout 6.10 Food Commodities Used in Supplementary Feeding**. Answer any questions.

REVIEW: SUPPLEMENTARY FEEDING RATION CARD. Refer participants to **Handout 6.11 Supplementary Feeding Ration Card** and review what information is recorded on the card. Discuss what is different from a ready-to-use therapeutic food (RUTF) ration card, used in outpatient care, and why the two cards are different.

LEARNING OBJECTIVE 4:

PRACTICE MAKING REFERRALS FROM SUPPLEMENTARY FEEDING TO OUTPATIENT OR INPATIENT CARE

Become familiar with **Handout 6.12 Referral Slip** and **Exercise 6.1 Referrals in CMAM**.

REVIEW: USING REFERRAL SLIPS. Refer participants to **Handout 6.12 Referral Slip,** noting that this is the same referral slip they have encountered in the modules addressing outpatient and inpatient care. Ask if there are any questions.

PRACTICE: MAKING REFERRALS FROM SUPPLEMENTARY FEEDING. Ask participants to form pairs. Direct them to **Exercise 6.1 Referrals in CMAM** and distribute copies of referral slips. Ask participants to read the examples and explain that three children present to an SFP. The participants are to decide what action is required and complete a referral slip where appropriate. Ask one pair to report on Child A and then ask other pairs to add additional information. Repeat for Child B and Child C. Using the answer sheet below, coach participants to fill in gaps.

EXERCISE 6.1 REFERRALS IN CMAM (ANSWER SHEET)

CHILD A

Question: Child A was admitted to the SFP with a MUAC of 112 mm, weight of 10 kg and no medical complications. At the second weighing, the child had bilateral pitting edema on the feet. What action is needed?

Answer: Child A should be referred to outpatient care. The child should have received a number on admission to the SFP. Complete a referral slip to outpatient care with the child's admission number on the top. This helps ensure that children do not get lost in the system. Once the child has recovered in outpatient care, s/he will rejoin the SFP.

It is important to explain to the mother/caregiver why the child is being sent to outpatient care and what s/he can expect. The mother/caregiver should understand that once the child has recovered in outpatient care, the child will return to the SFP.

CHILD B

Question: Child B was referred to the SFP by the outreach worker with a MUAC of 113 mm. On admission, the nurse finds the child has no appetite and an extremely high fever. What action is needed?

Answer: Child B should be referred to the hospital for medical treatment according to the action protocol and treated according to the World Health Organization (WHO) and integrated management of childhood illness (IMCI) protocols, and national protocols. The child is given a referral slip. Transportation should be arranged where

possible. Once the child recovers, the child will return to the SFP. It is important to explain to the mother/caregiver why the child is being sent to the hospital and what s/he can expect.

LO.4

CHILD C

Question: Child C was admitted to the SFP with a MUAC of 111 mm. After four weeks (third weighing), the child has lost weight and MUAC is now 109. The child has diarrhea and some appetite. You want to send the child to outpatient care, but the mother/caregiver refuses to go. How would you deal with this?

Answer: The mother/caregiver might prefer the SFP to outpatient care because the food the SFP provided can be used for the whole family or because the SFP requires attendance only every two weeks or every month. Explain carefully to the mother/caregiver the need for and advantages of outpatient care treatment. In most cases, once the mother/caregiver sees that the child rapidly improves in outpatient care, the issue will resolve itself. If distance is the issue, it might be possible to provide ready to-use therapeutic food (RUTF) every two weeks instead of weekly. The mother/caregiver could also receive a family ration while the child is in outpatient care, if available.

WRAP-UP AND MODULE EVALUATION

REVIEW LEARNING OBJECTIVES AND COMPLETE EVALUATION FORM.

- Review the learning objectives of the module. In this module you have:

  1. Described some types of supplementary feeding and how they are relevant to CMAM
  2. Identified admission and discharge criteria for supplementary feeding
  3. Discussed medical treatment and nutrition rehabilitation in supplementary feeding
  4. Practiced making referrals from supplemental feeding to outpatient or inpatient care

- Ask for any questions and feedback on the module. Let participants know that they will have an opportunity to observe procedures and discuss with staff during the supplementary feeding field visit.

- Finally, ask participants to complete the module evaluation form.

COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION

SUPPLEMENTARY FEEDING FIELD VISIT

OVERVIEW

- A maximum of five participants should be at each supplementary feeding site on a given day. Coordinate with as many sites as necessary to keep the number of participants at five or fewer.
- Pair participants with someone who speaks the local language as well as their language.
- Introduce participants to the person in charge.

FIELD VISIT LEARNING OBJECTIVES	HANDOUTS TO TAKE TO THE SUPPLEMENTARY FEEDING FIELD VISIT
1. Review Admission, Treatment and Discharge Procedures for Supplementary Feeding 2. Observe and Discuss Admission, Treatment, Discharge and Referral Procedures for Supplementary Feeding	Handout 6.2 Principles of Supplementary Feeding for the Management of MAM Handout 6.4 Admission Criteria and Entry Categories for CMAM Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.13 Supplementary Feeding Field Visit Checklist

FIELD VISIT LEARNING OBJECTIVE 1: REVIEW ADMISSION, TREATMENT AND DISCHARGE PROCEDURES FOR SUPPLEMENTARY FEEDING

READING THE NIGHT BEFORE: ADMISSION AND DISCHARGE PROCEDURES FOR SUPPLEMENTARY FEEDING

In preparation for the supplementary feeding field visit, ask participants to review **Handout 6.2 Principles of Supplementary Feeding for the Management of MAM**, **Handout 6.4 Admission Criteria and Entry Categories for CMAM** and **Handout 6.5 Discharge Criteria and Exit Categories for CMAM**.

BRAINSTORM, PARTICIPATORY LECTURE: ADMISSION AND DISCHARGE PROCEDURES FOR SUPPLEMENTARY FEEDING

- At some point before observing procedures at the site (e.g., during a brief meeting on arriving at the site), ask participants to name admission and discharge procedures.
- Fill in gaps by briefly reviewing the admission and discharge procedures through a participatory lecture.

FIELD VISIT LEARNING OBJECTIVE 2: OBSERVE AND DISCUSS ADMISSION, TREATMENT, DISCHARGE AND REFERRAL PROCEDURES FOR SUPPLEMENTARY FEEDING

Become familiar with **Handout 6.13 Supplementary Feeding Field Visit Checklist**.

FEEDBACK/DISCUSSION: SUPPLEMENTARY FEEDING FIELD VISIT SESSIONS

After the field visit to the supplementary feeding site, conduct a feedback session in which participants will:

- Provide feedback on strengths observed at each supplementary feeding site visited
- Raise issues for clarification by facilitators
- Identify key gaps that need more observation time

COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION

MODULE SIX

Supplementary Feeding to Manage MAM in the Context of CMAM

LEARNING OBJECTIVES	HANDOUTS AND EXERCISES
1. Describe Some Types of Programmes to Manage MAM and How this Component Fits Within CMAM	Handout 6.1 Supplementary Feeding to Manage MAM in Emergencies Handout 6.2 Principles of Supplementary Feeding for the Management of MAM
2. Describe Admission to and Discharge from Supplementary Feeding for the Management of MAM	Handout 6.3 Admission Procedures in Supplementary Feeding Handout 6.4 Admission Criteria and Entry Categories for CMAM Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.6 CMAM Classification of Acute Malnutrition Handout 6.7 Supplementary Feeding Treatment Card Cards with Admission Criteria
3. Discuss Medical Treatment and Nutrition Rehabilitation in Supplementary Feeding	Handout 6.8 Medical Treatment Protocols for Management of MAM in Supplementary Feeding Handout 6.9 Nutritional Rehabilitation Protocols for the Management of MAM in Supplementary Feeding Handout 6.10 Food Commodities Used in Supplementary Feeding Handout 6.11 Supplementary Feeding Ration Card
4. Practice Making Referrals from Supplementary Feeding to Outpatient or Inpatient Care	Handout 6.12 Referral Slip Exercise 6.1 Referrals in CMAM
Wrap-Up and Module Evaluation	

FIELD VISIT LEARNING OBJECTIVES	HANDOUTS TO TAKE TO THE SUPPLEMENTARY FEEDING FIELD VISIT
1. Review Admission, Treatment and Discharge Procedures for Supplementary Feeding	Handout 6.2 Principles of Supplementary Feeding for the Management of MAM Handout 6.4 Admission Criteria and Entry Categories for CMAM Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.13 Supplementary Feeding Field Visit Checklist
2. Observe and Discuss Admission, Treatment, Discharge and Referral Procedures for Supplementary Feeding	

Edited by Dr. Abdul Rehman Pirzado pirzado@gmail.com

HANDOUT 6.1
SUPPLEMENTARY FEEDING TO MANAGE MAM IN EMERGENCIES

A. PURPOSE OF SUPPLEMENTARY FEEDING PROGRAMMES (SFPS)

Supplementary feeding implemented in an emergency context is known as an SFP. It's purpose is to treat moderate acute malnutrition (MAM) in children 6-59 months and other vulnerable groups, such as malnourished pregnant women and lactating women with infants under 6 months of age.

Children under 6 months are never admitted to SFPs. However, the mother receives counselling on adequate breastfeeding and, if malnourished, will be admitted to the SFP herself. If the infant shows signs of severe acute malnutrition (SAM, i.e. bilateral pitting edema, visible wasting), the infant will then be referred to inpatient care for specialized care.

There are two types of supplementary feeding interventions in emergencies:

Blanket supplementary feeding: A supplementary ration is provided for everyone in an identified vulnerable group for a defined period. This might be all children under 3 or 5 years old and/or all pregnant and lactating women, regardless of their nutritional status. Anthropometric criteria are not used for admission. Blanket feeding is used when the prevalence of acute malnutrition is high, numbers of vulnerable people are very large and general food distributions are inadequate. It can also be used during certain peak seasons or shocks.

Targeted supplementary feeding: A supplementary ration is targeted to individuals with MAM in specific vulnerable groups. The vulnerable groups usually include children age 6 to 59 months and malnourished pregnant women and lactating women with infants under 6 months of age. Groups also might include individuals with special needs such as people living with HIV (PLHIV), people with tuberculosis (TB) and the elderly. Specific anthropometric criteria for entry and discharge are usually used.

The supplementary feeding discussed in this module as part of CMAM is a **targeted SFP.**

B. SFPS IN THE CONTEXT OF CMAM

- In emergencies where the population depends on external food assistance, a general ration for the whole population is a priority to reach the maximum number of children. Normally, SFPs should not be set up before a general ration is in place. Also, in an emergency, SFPs (to manage MAM in children) should be prioritized over CMAM outpatient care and inpatient care (to manage SAM in children).
- An SFP is implemented through a large number of decentralized treatment sites. These are located at or near the sites chosen for outpatient care and should be within a day's walk (round-trip) for the beneficiaries, which helps facilitate referrals between outpatient care and supplementary feeding.
- When an SFP and outpatient care are provided at the same site, this can lead to very large crowds. Good organization is necessary to ensure that the crowds do not interfere with outpatient care and other ongoing health facility activities. It is preferable to place the SFP nearby rather than in the health facility, with strong established links for referral.

C. OBJECTIVES OF AN SFP AND WHEN TO START AND CLOSE AN SFP

- The objectives of an SFP intervention should be measurable and, in most cases, achieved in a defined period. The precise objectives will depend on the context and resources available. The objectives might include:
  - Reducing mortality among children under 5
  - Treating and preventing deterioration in the nutritional status of children with MAM
  - Preventing deterioration in the nutritional status of pregnant and lactating women
- The decision to start supplementary feeding in an emergency context is often based on a high prevalence of MAM and/or the presence of aggravating factors, such as a crude death rate above 1 in 10,000 per day, an epidemic of measles, high prevalence of respiratory or diarrheal disease, poor sanitation environment, inadequacy in the relief food basket and/or an unreliable food distribution system.
- Decision charts can be used as guidelines for when to open and close an SFP. They should be used only as a guide and when appropriate for the SFP's context, precise objectives and timeframe.
- The decision to close an SFP will depend on the SFP's objectives. The decision to close ideally should be made after a nutrition survey has clearly shown a decrease in global acute malnutrition (GAM) in the population to below emergency levels and the end of aggravating factors.

D. WHERE THERE IS NO SFP

In some situations, no SFP is available. This is likely to be the case when outpatient care is part of routine health care in non-emergency situations or in a food-secure environment. In non-emergency situations, some form of supplementary feeding for the management of MAM might be part of child survival interventions or a national programme. For example, in Ethiopia, distribution of supplementary food is part of the country's Enhanced Outreach Strategy for Child Survival. It also might be the case after an emergency when resources are no longer available for SFPs and/or where the prevalence of acute malnutrition has been significantly reduced.

Below are some options that should be considered to ensure that children recovering from SAM can continue gaining weight and avoid readmission:

1. In cases where there is high GAM and efforts to set up an SFP have failed, adapt the outpatient care admission and discharge criteria.
   - Admission Criteria: Raise mid-upper arm circumference (MUAC) from < 115 mm to < 115 mm or raise weight-for-height (WFH) as a percentage of the median to < 72% or 75%.
   - Discharge Criteria: Extend length of stay from two to three months or increase WFH as a percentage of the median to > 85%.
2. In an emergency response, advocate for a general food distribution for families of vulnerable or malnourished children or, when there is access to fortified blended food (FBF), provide a family food ration in outpatient care.
   - A ration of FBF can be provided to the mother/caregiver of a child admitted to outpatient care every two weeks (usually 2.5 kg of FBF every two weeks). This is given as a family food ration to prevent sharing of the ready-to-use therapeutic food (RUTF). The ration will likely be provided by the World Food Programme (WFP) or government agencies. This should be a standard part of emergency outpatient care.

3. Provide a food ration on discharge from outpatient care.
   - If access to supplementary foods is secured/allowed, a food ration can be provided upon discharge from outpatient care (equivalent to two months of supplementary rations) to help avoid readmission.

4. Link to prevention programmes.
   - Once children have been treated for SAM or MAM and have started to recover, they and their mothers/caregivers should be linked with prevention programmes to help prevent them from becoming malnourished again. Many cases of undernutrition could be prevented through other interventions that promote child growth (e.g., community-based programmes such as Positive Deviance/Hearth [PD/Hearth], community-based growth monitoring and promotion (GMP), community-based care groups). These programmes offer nutrition and health counselling, education communication interventions and support for mothers/caregivers.

HANDOUT 6.2

PRINCIPLES OF SUPPLEMENTARY FEEDING FOR THE MANAGEMENT OF MAM

Source: Adapted from the World Food Programme (WFP) *Guidelines for Supplementary Feeding* (WFP 1999)

Blanket Supplementary Feeding	**Targeted Supplementary Feeding**
A generalized SFP for prevention purposes can be implemented in the absence of a full basic ration under one or a combination of these circumstances: ▪ Problems in the delivery/distribution of the general ration ▪ Prevalence of acute malnutrition above 15% to 20% among children under 5 ▪ Prevalence of acute malnutrition above 10% to 15% among children under 5, plus aggravating factors* ▪ Seasonal major food insecurity	Implementation of SFPs for selected individuals in vulnerable groups is required under these circumstances: ▪ Prevalence of acute malnutrition above 10% among children under 5 ▪ Prevalence of acute malnutrition above 5% to 9% among children under 5, plus aggravating factors*
* Aggravating factors to be considered are crude death rates above 1 in 10,000 per day, an epidemic of measles, high prevalence of respiratory or diarrheal disease, poor sanitation environments, high levels of food insecurity, and an unreliable food distribution system.	

When to close an SFP

An SFP can be closed when the prevalence of general acute malnutrition (GAM) is below 10% with no aggravating factors and the following conditions are met:

- General food distributions are reliable and adequate or food security is acceptable.
- Effective public health and disease control measures are in place.
- No seasonal deterioration of nutritional status is expected.
- The population size is stable, with no new displacement expected.

Note: In some situations where GAM is below 10%, but the absolute number of malnourished children is still considerable, it might not be appropriate to close the targeted SFP. The same might apply in unstable and insecure situations where the SFP could be needed as a safety net.

HANDOUT 6.3

ADMISSION PROCEDURES IN SUPPLEMENTARY FEEDING

ADMISSION PROCEDURES

- Children directly admitted to a supplementary feeding are given an individual registration number that is kept the same on all records (i.e. in register book, on treatment and rations cards).
- A supplementary feeding treatment card is filled out for all admissions.
- A supplementary feeding ration card is given to the mother/caregiver or individual on admission. The mother/caregiver keeps the card.
- The amount of information recorded on a supplementary feeding treatment card should be kept to a minimum: registration number, name, place of origin, admission indicators (mid-upper arm circumference [MUAC] or weight-for-height [WFH]), weight and height on admission and discharge, and date of admission and discharge.
- MUAC, weight and/or either WFH z-score (World Health Organization [WHO] standards) or WFH as a percentage of the median (National Centre for Health Statistics [NCHS] standards), depending on the national guidelines, are recorded at every session on the supplementary feeding treatment card. If WFH is used, height is recorded at admission and once a month until discharge.
- Like outpatient and inpatient care, the performance of the supplementary feeding service/programme is measured through monthly reports.

CHILDREN 6-59 MONTHS

- Children are screened by outreach workers (e.g., community health workers [CHWs], volunteers) using MUAC and are referred to supplementary feeding, or they are admitted via self-referrals (mothers/caregivers bring them on their own initiative).
- In community-based management of acute malnutrition (CMAM), children with moderate acute malnutrition (MAM) without medical complications are automatically admitted to supplementary feeding. Moderately malnourished children with medical complications are immediately referred for treatment and/or further investigation to the appropriate health service and should have access to a nutrient-dense supplementary food. They return to supplementary feeding as soon as their medical complication is resolved.
- Admissions also include children discharged from outpatient care as cured who are admitted to supplementary feeding for a defined period of time to continue their recovery irrespective of their current anthropometrical status.
- MUAC is often used for community screening, referral and admission to supplementary feeding. However, WFH (either z-score [WHO standards] or as a percentage of the median [NCHS standards]) is more commonly used. Hence, some agencies use dual criteria, i.e. community screening using MUAC and admission using WFH. Using different criteria increases the number of children who are refused admission, which can compromise access and uptake of MAM services.

- The global community has not yet endorsed MUAC as an independent criterion for admission to supplementary feeding. Research is ongoing, and a joint statement by international organizations is expected.

INFANTS UNDER 6 MONTHS WITH MAM

- Infants under 6 months are never included in supplementary feeding. If an infant under 6 months is malnourished (with or without medical complications) or the mother has insufficient breast milk and the child is at high risk for undernutrition, the mother and infant are both referred to inpatient care.

HIV-POSITIVE CHILDREN WITH MAM

- Children who are moderately malnourished and HIV-positive may be referred to outpatient care or inpatient care, depending on national guidelines. It is unknown if these children have more specific energy and nutrient needs and whether or not they would do well in supplementary feeding. Research in the treatment of malnourished HIV-positive children is ongoing.

PREGNANT AND LACTATING WOMEN

- In emergencies, malnourished pregnant and lactating women are included in SFPs, usually using MUAC as the criterion for admission.

HANDOUT 6.4

ADMISSION CRITERIA AND ENTRY CATEGORIES FOR CMAM

ADMISSION CRITERIA FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	**OUTPATIENT CARE** for the Management of SAM without Medical Complications	**SUPPLEMENTARY FEEDING** for the Management of MAM
ADMISSION CRITERIA FOR CHILDREN 6 - 59 MONTHS*		
Bilateral pitting edema +++ **OR** Marasmic kwashiorkor: Any grade of bilateral pitting edema with severe wasting (MUAC < 115 mm or WFH < -3 z-score [WHO] or < 70% of median [NCHS]) **OR** Bilateral pitting edema + or ++ or MUAC < 115 mm or WFH < -3 z-score (WHO) or < 70% of median (NCHS) **with** any of the following medical complications: ▪ Anorexia, no appetite ▪ Intractable vomiting ▪ Convulsions ▪ Lethargy, not alert ▪ Unconsciousness ▪ Lower respiratory tract infection (LRTI) ▪ High fever ▪ Severe dehydration ▪ Severe anemia ▪ Hypoglycaemia▪ Hypothermia **OR** ▪ Referred from outpatient care according to action protocol ▪ Other: e.g., infant ≥ 6 months and < 4 kg	Bilateral pitting edema + and ++ **OR** MUAC < 115 mm **OR** WFH < -3 z-score (WHO) or < 70% of median (NCHS) **AND** ▪ Appetite ▪ Clinically well ▪ Alert	MUAC ≥ 115 mm and < 125 mm **OR** WFH ≥ -3 z-score and < -2 z-score (WHO) or ≥ 70% and < 80% of median (NCHS) **AND** ▪ Appetite ▪ Clinically well ▪ Alert **ALSO:** Children recovering from SAM, after discharge from outpatient care, regardless of their anthropometry *Note: Children with MAM and medical complications are admitted to supplementary feeding (receive supplementary food ration) but are referred for medical treatment and return when medical complications are resolved.*

*Subject to adaptations according to national guidelines; mid-upper arm circumference (MUAC) cutoffs for severe acute malnutrition (SAM) and mild acute malnutrition (MAM) are being debated.

ADMISSION CRITERIA FOR INFANTS < 6 MONTHS		
Infants < 6 months with bilateral pitting edema or visible wasting (or e.g., insufficient breastfeeding in vulnerable environment)		
ADMISSION CRITERIA FOR PREGNANT AND LACTATING WOMEN		
		Pregnant women In second and third trimester with MUAC < 210 mm **Lactating Women** MUAC < 210 mm with infants < 6 months

ENTRY CATEGORIES FOR CMAM

INPATIENT CARE **for the Management of SAM with Medical Complications**	**OUTPATIENT CARE** **for the Management of SAM without Medical Complications**	**SUPPLEMENTARY FEEDING** **for the Management of MAM**
ENTRY CATEGORY: NEW ADMISSIONS OF CHILDREN 6-59 MONTHS		
New SAM cases of children 6-59 months meet admission criteria - including **relapse** after cure	New SAM cases of children 6-59 months meet admission criteria - including **relapse** after cure	New MAM cases of children 6-59 months meet admission criteria - including **relapse** after cure and **referral** from outpatient care
ENTRY CATEGORY: OTHER NEW ADMISSIONS		
New SAM cases of infants, children, adolescents or adults (< 6 months or ≥ 5 years) need treatment of SAM in inpatient care	New SAM cases not meeting pre-set admission criteria need treatment of SAM in outpatient care	New MAM cases not meeting pre-set admission criteria need treatment of MAM
ENTRY CATEGORY: OLD CASES: REFERRAL FROM OUTPATIENT CARE AND INPATIENT CARE		
Referral from outpatient care: Child's health condition deteriorated in outpatient care (according to action protocol) and child needs inpatient care **Returned after defaulting** **Moved in** from another outpatient care site	***Referral from inpatient care:*** Child's health condition improved in inpatient care and child continues treatment in outpatient care **OR** **Returned** after defaulting, or **Moved in** from another outpatient care site	***Referral from outpatient care:*** **Returned** after defaulting, or **Moved in** from other supplementary feeding site

Note: MUAC is the preferred indicator for admission to CMAM. MUAC is used for children age 6-59 months. MUAC cutoffs for SAM and MAM are being debated. The cutoff for SAM could increase to 115 mm, however, this had not been put in practice at the time these materials were published. In some countries, the MUAC cutoff for MAM has been set at < 120 mm.

Depending on national guidelines, weight-for-height (WFH) is expressed as standard deviations (SDs) below the median of the World Health Organization (WHO) child growth standards (WFH < - z-score) or as a percentage of the median of the National Centre for Health Statistics (NCHS) child growth references (WFH < % of median).

HANDOUT 6.5

DISCHARGE CRITERIA AND EXIT CATEGORIES FOR CMAM

DISCHARGE CRITERIA FOR CMAM

INPATIENT CARE for the Management of SAM with Medical Complications	**OUTPATIENT CARE** for the Management of SAM without Medical Complications	**SUPPLEMENTARY FEEDING** for the Management of MAM
DISCHARGE CRITERIA* FOR CHILDREN 6 - 59 MONTHS		
DISCHARGED TO OUTPATIENT CARE: Appetite returned (passed appetite test) **AND** medical complication resolving **AND** bilateral pitting edema decreasing **AND** clinically well and alert (If marasmic kwashiorkor admission: bilateral pitting edema resolved)	**DISCHARGED CURED:** **if bilateral pitting edema admission:** ▪ No bilateral pitting edema for 2 consecutive sessions ▪ MUAC ≥ 115 mm ▪ WFH ≥ -2 z-score (WHO) or ≥ 80 % of the median (NCHS) ▪ Child clinically well and alert **if MUAC admission:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 115 mm ▪ No bilateral pitting edema ▪ Child clinically well and alert **if WFH admission:** ▪ Minimum 2 months in treatment and WFH ≥ -2 z-score (WHO) or ▪ WFH ≥ 80 % of the median (NCHS) for 2 consecutive sessions** ▪ No bilateral pitting edema ▪ Child clinically well and alert **if marasmic kwashiorkor admission:** ▪ No bilateral pitting edema for 2 consecutive sessions ▪ If MUAC admission: minimum 2 months in treatment and MUAC ≥ 115 mm ▪ If WFH admission: WFH ≥ -2 z-score (WHO) or ≥ 80% of the median (NCHS) for 2 consecutive sessions ▪ Child clinically well and alert ***Children are discharged to supplementary feeding if available***	**DISCHARGED CURED:** **if MUAC admission:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 125 mm **if WFH admission:** ▪ Minimum 2 months in treatment ▪ WFH ≥ -2 z-score (WHO) or ≥ 85% of median (NCHS) for 2 consecutive sessions **DISCHARGED AFTER RECOVERING FROM SAM:** ▪ Minimum 2 months in treatment ▪ MUAC ≥ 125 mm

*Subject to adaptations according to national guidelines; mid-upper arm circumference (MUAC) cutoffs for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) are being debated.

** If there is no supplementary feeding, discharge criteria may be adjusted to weight-for-height (WFH) ≥ 85% of median (National Centre for Health Statistics [NCHS]).

DISCHARGE CRITERIA FOR INFANTS < 6 MONTHS		
Discharged cured if successful re-lactation and appropriate weight gain (minimum 20 grams weight gain per day on breastfeeding alone for 5 days) and clinically well and alert (if no access to breastfeeding,alternative method of replacement feeding based on national guidelines is required).		
DISCHARGE CRITERIA FOR PREGNANT AND LACTATING WOMEN		
		Pregnant and lactating women MUAC ≥ 210 mm or infant ≥ 6 months of age

EXIT CATEGORIES FOR CMAM

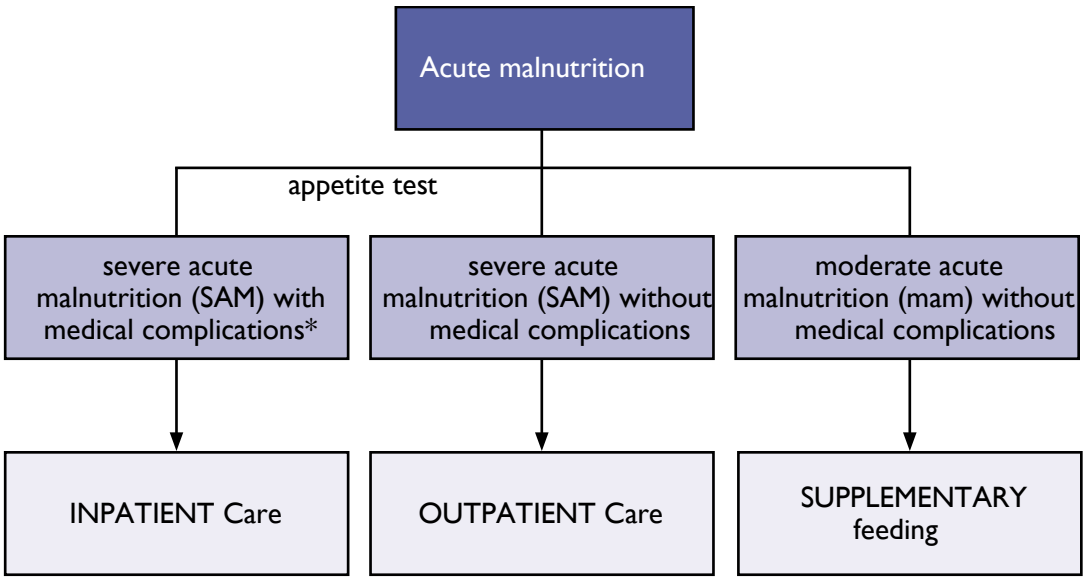
INPATIENT CARE **for the Management of SAM with Medical Complications**	**OUTPATIENT CARE** **for the Management of SAM without Medical Complications**	**SUPPLEMENTARY FEEDING** **for the Management of MAM**
EXIT CATEGORY: CURED		
Child 6-59 months meets outpatient care discharge criteria Infant < 6 months meets inpatient care discharge criteria	Child 6-59 months meets discharge criteria	Child 6-59 months meets discharge criteria
EXIT CATEGORY: DIED		
Child dies while in inpatient care	Child dies while in outpatient care	Child dies while in supplementary feeding
EXIT CATEGORY: DEFAULTED		
Child is absent for 2 days	Child is absent for 3 consecutive sessions (e.g., 3 weeks)	Child is absent for 3 consecutive sessions (e.g., 6 weeks
EXIT CATEGORY: NON-RECOVERED		
Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)	Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)	Child does not reach discharge criteria after 4 months in treatment (medical investigation previously done)
EXIT CATEGORY: REFERRED TO OUTPATIENT OR INPATIENT CARE		
Referred to Outpatient Care Child's health condition is improving and child is referred to outpatient care to continue treatment	***Referred to Inpatient Care*** Child's health condition is deteriorating (action protocol)	***Referred to Outpatient or Inpatient Care*** Child's health condition is deteriorated and child meets outpatient or inpatient care admission criteria (action protocol)

Note: MUAC is the preferred indicator for admission to CMAM. MUAC is used for children age 6-59 months. MUAC cutoffs for SAM and MAM are being debated. The cutoff for SAM could increase to 115 mm, however, this had not been put in practice at the time these materials were published. In some countries, the MUAC cutoff for MAM has been set at < 120 mm.

Depending on national guidelines, weight-for-height (WFH) is expressed as standard deviations (SDs) below the median of the World Health Organization (WHO) child growth standards (WFH < - z-score) or as a percentage of the median of the National Centre for Health Statistics (NCHS) child growth references (WFH < % of median).

HANDOUT 6.6

CMAM CLASSIFICATION OF ACUTE MALNUTRITION



*Medical complications include: Severe bilateral pitting edema, marasmic kwashiorkor, anorexia/no appetite, intractable vomiting, convulsions, lethargic, lower respiratory tract infection (LRTI), high fever, severe dehydration, severe anemia, hypoglycaemia, and hypothermia.

Note: Children with moderate acute malnutrition (MAM) and medical complications are admitted to supplementary feeding (receive supplementary food ration) but are referred for medical treatment and return when the medical complication is resolved.

HANDOUT 6.7

SUPPLEMENTARY FEEDING TREATMENT CARD

SUPPLEMENTARY FEEDING TREATMENT CARD FOR CHILDREN, EXAMPLE

	Registration no.:	
Name of Child:	Age:	Sex: M / F
Caregiver's Name:	Name of Community Leader:	
Community:	Supplementary Feeding Site:	

ENTRY	Direct New Admission	New Admission, Referred from Inpatient care/ Outpatient care	Referred from Other Supplementary Feeding Site	Re-Admission after Defaulting

ADMISSION		**DISCHARGE**	
Date		Date	
Weight		Weight	
Height		Height	
WFH		WFH	
MUAC (mm)		MUAC (mm)	
		Length of Stay (days)	
		Status	1. Cured 4. Non-recovered 2. Died 5. Referral 3. Defaulted

DRUGS GIVEN ONCE	**DATE**	**OTHER**
Vitamin A		
Mebendazole		
Measles Vaccination		
EPI update		

#	DATE	WEIGHT	HEIGHT	MUAC	WFH	IRON	REMARKS
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

HANDOUT 6.8

MEDICAL TREATMENT PROTOCOLS FOR THE MANAGEMENT OF MAM IN SUPPLEMENTARY FEEDING

Source: *Community-based Therapeutic Care (CTC): A Field Manual*

ROUTINE MEDICINES FOR MODERATE ACUTE MALNUTRITION (MAM)

VITAMIN A

children 6-59 months:
- Routine supplementation should be given on admission except where Vitamin A has been given in the past month or health campaigns have ensured good coverage.
- Children referred from outpatient care, inpatient care or other health facility where Vitamin A has already been given should not be given Vitamin A.
- Children showing clinical signs of Vitamin A deficiency should be referred for treatment according to World Health Organization (WHO) guidelines.

Pregnant and lactating women: Pregnant women should NOT be given Vitamin A. Vitamin A is given postpartum, within six weeks after delivery only.

ANTIHELMINTHS

To ensure adequate weight gain, **all children 12-59 months** must be routinely treated (every six MONTHS) FOR WORM INFECTIONS WITH MEBENDAZOLE OR ALBENDAZOLE (OR OTHER APPROPRIATE ANTIHELMINTH).

IRON AND FOLIC ACID

children 6-59 months: Children with anemia should be treated according to WHO and Integrated Management of Childhood Illness (IMCI) guidelines; this should include malaria testing and treatment in endemic areas. Children with severe anemia should be referred to a health facility for treatment.

Pregnant and lactating women: Supplementation should be given according to WHO and national guidelines.

OTHER TREATMENTS

Other medical treatments, including vaccination for measles and expanded programme of immunization (EPI) update, should be provided through referral to clinic services and administered according to national guidelines.

HANDOUT 6.9

NUTRITION REHABILITATION PROTOCOLS FOR THE MANAGEMENT OF MAM IN SUPPLEMENTARY FEEDING

FOOD SUPPLEMENTS IN SUPPLEMENTARY FEEDING

Food supplements may be distributed as either take-home rations (e.g., dry rations, ready-to-use supplementary food [RUSF]) or on-site rations (wet rations):

- **Dry rations** are provided as raw ingredients and are not prepared for the recipients at the SFP site but are taken home. The ration is usually a fortified blended food (FBF, e.g., corn-soy blend [CSB], UNIMIX, SF450)[1] with sugar and oil, pre-mixed or distributed separately. Other commodities that might be distributed through an SFP include high-energy biscuits, beans, lentils, and bulgur wheat. The dry, take-home ration is usually distributed on a biweekly or monthly basis.

- **RUSF** is a high-energy nutrient dense food product designed for the nutritional rehabilitation of moderate acute malnutrition (MAM). It comes in a crushable form (e.g., BP 5 from Compact, Norway) or in a soft lipid-based form (e.g., Supplementary Plumpy® from Nutriset, France).

- **Wet rations** are cooked once or twice daily in the kitchen of a feeding centre and consumed on-site. The child must be brought to the feeding centre daily if s/he is prescribed wet rations.

  Sphere Minimum Standards and other guidelines discourage the use of wet supplementary feeding programmes. Wet feeding can be induced at the peak of an emergency, when populations have limited access to fuel and water, where security conditions place people at risk while taking rations home, or for groups who need additional food but cannot cook for themselves.

NUTRITION REHABILITATION IN SUPPLEMENTARY FEEDING

- The ration should provide 1,000-1,200 kilocalories (kcal) per person per day, with 10 percent to 12 percent of energy coming from protein, and should be provided for a long time (i.e. two to three months, according to the national guidelines). The ration accounts for family sharing with a family ration of approximately 500 kcal per day provided to the child's family.

- In emergency situations, SFPs generally use take-home rations. (On-site feeding is very rare and is considered to be a temporary solution ONLY or where security is a concern.) Usually, food is distributed as a pre-mix by weight using a balance or calibrated container. Where possible, mothers/ caregivers take the pre-mixed food home in their own containers or receive reusable containers.

- A dry ration is provided every two weeks or every month. The frequency depends on resources, the needs and size of the target population, and access to distribution sites. In some cases—particularly in large-scale national programmes, such as the Enhanced Outreach Strategy for Child Survival in Ethiopia—dry rations might be provided every three months, as long as oil has not been mixed into

[1] UNIMIX is an FBF distributed by the United Nations Children's Fund (UNICEF); it has replaced 5-10% of corn with sugar. SF450 is made of pre-cooked cereal flour including oats, toasted soy flour, vegetable fat and sugar, with added vitamins and minerals, and is produced by Nutriset, France.

the FBF.

SUPPLEMENTARY FOOD RATIONS IN SUPPLEMENTARY FEEDING

- Rations usually consist of an imported or locally produced blended foods, such as CSB or UNIMIX (includes already sugar), which are fortified with vitamins and minerals, hence the term FBF. They contain about 350-400 kcal per 100 g. The ration should include vegetable oil to ensure adequate energy, and the oil should be fortified with Vitamin A. Sugar should be added to the ration when available if it is not already part of the blend.

- A typical basic ration for children with MAM consists of:
  - Daily ration of 200-300g FBF and 25-30g of oil per person per day - Two-week ration of 2.5-4kg blended food and about 300g of oil per person (Note: the ration accounts for sharing).
  Other commodities such as sugar and powdered milk can be added.

- If ingredients are mixed before distribution, this is known as pre-mix. The aim is to ensure that rations (particularly high-value commodities such as oil) are not used for the general household or sold. However, pre-mixing can be time consuming, and it reduces the ration's shelf life. Once oil and powdered milk are mixed with FBF, the mixture will last a maximum of two weeks before going rancid.

- Pulses and high-energy biscuits may also be distributed with the FBF, depending on what is available.

- Sugar is included in some FBFs, but not those from the United States. Where available, sugar should be added to FBF to increase palatability and energy.

- **Powdered milk is never distributed alone**. It must always be mixed with an FBF before distribution.

- Clear information should be given on the hygienic use of the ration and on how and when it should be consumed. The pre-mix is combined with two portions of water for each portion of pre-mix and is cooked for at least 20 minutes. Practical preparation and cooking demonstrations should be given at the SFP site or in the community. Note that the demonstrations can draw large numbers of mothers/ caregivers and provide a good opportunity for health education. The messages should be clear, simple and practical.

- Several types of FBFs and other supplementary foods with a large variety of nutrient and energy densities are currently available on the market. It is recommended to seek advice from specialized agencies on which foods and what quantities are appropriate for the context and for the vulnerable groups that are targeted for supplementary feeding.

- Ration levels are normally determined by the World Food Programme (WFP) and national/local governments, according to needs and available resources. However, all agencies working in nutrition have a role in advocating for adequate supplementary foods and ration levels.

HANDOUT 6.10

FOOD COMMODITIES USED IN SUPPLEMENTARY FEEDING

Fortified blended food (FBF, 25kg bags), 350-400 kilocalories (kcal) per 100g
Blended foods should be fortified. A vitamin and mineral mix should be added to blended foods that have not been fortified before distribution, if possible. FBFs include corn-soy blend (CSB), wheat-soy blend (WSB), UNIMIX, and other national fortified blends. Some contain sugar, which improves palatability. Sugar should be added to FBFs that have not already been sweetened before distribution, if possible.

Note that FBFs' effectiveness in treating moderate undernutrition is under question for several reasons:

They are not energy-dense
The mix of ingredients makes valuable nutrients unavailable to the body
They require cooking
The prevalence of and intra-household sharing is high

Vegetable oil (four-litre cans), 900 kcal per 100g Vegetable oil is usually fortified with Vitamin A.

High-energy and high-protein biscuits, 450 kcal per 100g
High-energy and high-protein biscuits may be suitable for use in supplementary feeding programmes (SFPs) on a short-term basis. Commonly used biscuits include:

- BP5, which has 458 kcal per 100g and is designed to meet complete daily needs (nine bars in a 500g box)
- High-energy biscuits, which have 450 kcal per 100g, 12g of protein and are fortified with micronutrients (50 percent to 75 percent of adult daily requirements)

These biscuits significantly increase the supplementary diet's energy content and are particularly useful at the beginning of the emergency operation. The biscuits are a valuable commodity; efforts should be made to prevent them from being sold. The biscuits could be crushed or broken before being added to the dry ration pre-mix. Long-term dependence on the biscuits should be avoided.

Ready-to-use supplementary food (RUSF), 500 kcal per 90g packet
RUSF, which is similar to ready-to-use therapeutic food (RUTF) but is designed for supplementary feeding, has been developed for treating moderate acute malnutrition (MAM). RUSF is more expensive than blended foods, but the energy/nutrient density is so high that it might offset the costs because much less of it is needed to achieve the same energy and nutrient comparison. Like RUTF, RUSF might prove to be much more successful than blended foods in achieving better outcomes. This also would make it more cost-effective. Research on the effectiveness of RUSF is ongoing.

Powdered milk (25kg bags) as a supplement mixed with FBFs, 362 kcal per 100g
Powdered milk—also known as dry skim milk (DSM), non-fat dry milk (NFDM) or dry whole milk—should **never be distributed alone in a take-home ration**. The risk of dilution and germ contamination are very high and the milk could be used as a breastmilk substitute (also respecting the International Code of Marketing of Breast-milk Substitutes, see www.ennonline.org). Powdered milk can be added to FBFs before distribution but not when FBFs are pre-mixed with oil, unless the client is directed to use the FBF within two weeks to avoid spoilage.

Examples of Supplementary Rations

commodity	Ration 1 (g)	Ration 2 (g)	Ration 3 (g)
Fortified blended food (FBF)	250	250	140
Sugar		20	30
Oil	25	25	50
Powdered milk			50
Energy (kcal)	1,162	1,250	1,250
Protein % energy	14.5	14.5	14.5

Source: Adapted from the World Health Organization (WHO) 2000

HANDOUT 6.11

SUPPLEMENTARY FEEDING RATION CARD

Name of Child:							**Registration Number:** / /						
Caregiver's Name:							**Sex (M/F):**						
Dates of Admission:							**Age (Months):**						
Community:							**Supplementary Feeding Site:**						
Admission Criteria:							**Discharge Status:**						
Week	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Date													
Weight (kg)													
MUAC (mm)													
WFH													
Ration (type and quantity)													

Adapted from *Community-based Therapeutic Care: A Field Manual*

HANDOUT 6.12
REFERRAL SLIP

Name of child:		**Community:**
Age:		**Sex:**
Date of Admission:		**Site:**
ADMISSION DATA	**Weight:** **MUAC:**	**Referral to:**
	Height: **WFH:**	
Bilateral pitting edema (circle) None + ++ +++		**Registration No:**
Date of Referral:		

Criteria for Referral:

Treatment given:	**Comments:**

Adapted from *Community-based Therapeutic Care (CTC): A Field Manual*

HANDOUT 6.13

SUPPLEMENTARY FEEDING FIELD VISIT CHECKLIST

OBSERVE THE FOLLOWING:	
	Admission criteria
	Admission procedures
	Discharge criteria
	Discharge procedures
	Individual child's supplementary feeding treatment card (e.g., information collected, progress)
	Ration card
	Referral process
	Food supplies
ASK The STAFF:	
	How they ensure linkages between the supplementary food programme (SFP) and outpatient care
	How they ensure caregivers know how to prepare and give the supplementary food
	What kind of health/nutrition education they offer
	What strategies they use to avoid disrupting outpatient care or ongoing health centre activities
	Where their supplementary food comes from and how they order and store it

EXERCISE 6.1
REFERRAL IN CMAM

CHILD A

Child A was admitted to an SFP with a mid-upper arm circumference (MUAC) of 112 mm, weight of 10 kg and no medical complications. At the second weighing, the child had bilateral pitting edema on the feet. What action is needed?

CHILD B

Child B was referred to the SFP by the outreach worker with a MUAC of 113 mm. On admission, the nurse finds the child has no appetite and an extremely high fever. What action is needed?

CHILD C

Child C was admitted to the SFP with a MUAC of 111 mm. After four weeks (third weighing), the child has lost weight and MUAC is 109. The child has diarrhea and some appetite. You want to send the child to outpatient care, but the mother/caregiver refuses to go. How would you deal with this?