

TRAINING GUIDE FOR COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)

GUIDE FOR TRAINERS

September 2018



Recommended Citation: Food and Nutrition Technical Assistance III Project (FANTA). 2018. *Training Guide for Community-Based Management of Acute Malnutrition (CMAM)*. Washington, DC: FHI 360/FANTA.

September 2018

The training materials are made possible by the generous support of the American people through the support of the Office of Maternal and Child Health and Nutrition, Bureau for Global Health, U.S. Agency for International Development (USAID) and USAID/Botswana under terms of Cooperative Agreement No. AID-OAA-A-12-00005, through the Food and Nutrition Technical Assistance III Project (FANTA), managed by FHI 360.

The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.

ACKNOWLEDGEMENTS

The development of the original 2008 *Training Guide for Community-Based Management of Acute Malnutrition (CMAM)* and the 2018 revision were the product of collaboration between many different people and organisations, all of whom contributed greatly to the final product. We would like to acknowledge the contribution of the following people and organisations:

Development of the Original 2008 Training Guide for CMAM

We would like to thank Hedwig Deconinck, Kristen Cashin, and Joan Whelan (Food and Nutrition Technical Assistance Project [FANTA]); Valerie Gatchell (Concern Worldwide); Tanya Khara (UNICEF); Anne Walsh (Valid International); Chantal Gegout (World Health Organisation [WHO]); and Margaret Ferris-Morris, Caroline Grobler-Tanner, Jamie Lee, and Maryanne Stone-Jiménez (independent consultants) for their valuable contributions as authors of various sections of the modules.

We would like to thank Caroline Abla and Eunyong Chung (U.S. Agency for International Development [USAID]); Mohamed Ayoya, Leah Richardson, Mahendra Sheth, Adriana Zarrelli, and others (UNICEF); Andre Briend (WHO); Mike Neequaye (Ghana Health Service); Marie-Sophie Simon (Action Against Hunger); Nicky Dent, Kate Golden, Lynda Kiess, and others (Concern Worldwide), Kathryn Bolles (Save the Children); Mesfin Teklu (World Vision International); Fred Grant (formerly FANTA); Sandra Remancus (FANTA); Tula Michaelides and Renata Seidel (FHI 360); and Joseph Somuah Akuamoah and Sheikh Shahed Rahman (independent consultants) for technical inputs and review that strengthened the document.

2018 Revision of the Training Guide for CMAM

We would like to thank Alice Nkoroi, Rebecca Egan, and Sandra Remancus (FANTA); Amanda Yourchuck (formerly FANTA); Marie McGrath (Emergency Nutrition Network); and Mary Lung'aho and Maryanne Stone-Jiménez (independent consultants) for their valuable contributions in the revision of various sections of the modules.

We would like to thank Lindy Fenlason, Timothy Quick, Erin Boyd, Sonia Walia, Judy Canahuati, and Elizabeth Bontrager (USAID); Zita Weise Prinzo (WHO); Dolores Rio (UNICEF); Andre Briend (University of Copenhagen and University of Tampere); Catherine Adu-Asare (Ghana Health Service); Saul Guerrero, Grace Funnell, and others (Action Against Hunger); Kate Golden, Natalie Sessions, and others (Concern Worldwide); Susan Butler and Nicky Connell (Save the Children); Colleen Emary (World Vision International); Suzanne Brinkmann (International Medical Corp [IMC]); Jeanette Bailey and Bethany Marron (International Rescue Committee [IRC]); and Kevin Phelan (Alliance for International Medical Action [ALIMA]).

We would also like to thank the following members of the Management of At-risk Mothers and Infants Under 6 Months (MAMI) Special Interest Group: Marko Kerac and Louise Day (London School of Hygiene & Tropical Medicine), Jay Berkely (KEMRI/Wellcome Trust); Hatty Barthorp (GOAL); Katie Beck (Partners in Health); Indi Trehan and Kirrily de Polnay (Médecins Sans Frontières [MSF]); Nigel Rollins (WHO); and Mija-Tesse Ververs (U.S. Centers for Disease Control and Prevention [CDC]).

For her work editing the revised training materials, we would like to acknowledge Pam Sutton (FANTA).

We also would like to thank all the agencies that have implemented community-based therapeutic care (CTC) and CMAM programmes and that have directly and indirectly contributed to the experience and learning to date from which these modules have been developed.

PREFACE

In 2017, the World Health Organisation (WHO), United Nations Children's Fund (UNICEF), and the World Bank estimated that wasting, a form of acute malnutrition, affects the lives of approximately 50.5 million children under 5 years of age globally. Most of these children live in South Asia and Sub-Saharan Africa. Malnutrition is a major public health concern and the underlying cause of deaths in children under 5 years of age; children with acute malnutrition are also three to nine times more likely to die than well-nourished children¹.

To address the high rates of acute malnutrition, community-based management of acute malnutrition (CMAM), which evolved from the Community-Based Therapeutic Care (CTC) approach, was developed in 2001². The approach aims to reach the maximum number of children with acute malnutrition and to ensure quality, access, and coverage by allowing a majority of children to be treated at many decentralised outpatient care sites. In many countries, CMAM was introduced as an emergency intervention, but it is now increasingly being integrated into routine health service delivery and scaled up as an essential solution for the management of acute malnutrition. Over 70 countries are currently implementing CMAM,³ with many of them integrating the management of severe acute malnutrition (SAM) into government policies.

The CMAM approach consists of four main components: community outreach, outpatient care for the management of SAM without medical complications, inpatient care for the management of SAM with medical complications, and programmes for the management of moderate acute malnutrition (MAM), such as a supplementary feeding programme (SFP).

The Scope of the Training Guide for CMAM

This training guide focuses on the management of SAM in children 6–59 months of age and takes into account emerging evidence on the management of MAM and the “management of at-risk mothers and infants under 6 months of age (MAMI)”⁴. The training guide is designed to increase participants' knowledge of and build practical skills to implement CMAM in emergency and non-emergency settings. The guide complements the WHO guidelines and protocols for the management of acute malnutrition and the WHO training modules for inpatient management of severely malnourished children⁵. The guide is intended to be adapted to the local context to ensure that national guidelines and protocols for the management of acute malnutrition and local models and materials are considered. Note that while national guidelines must be respected, this guide reflects evidence-based guidance and/or current best practices, unless otherwise stated.

¹ Collins et al. 2006. Management of severe acute malnutrition in children. *The Lancet*. 368: 1992–2000.

² Collins, S. 2004. “Community-Based Therapeutic Care: A New Paradigm for Selective Feeding in Nutritional Crisis.” Humanitarian Practice Network Paper 48. Overseas Development Institute (ODI).

³ UNICEF. 2014. *Nutridash 2013: Global Report on the Pilot Year*. New York: UNICEF. Available at: <https://unicefpronutritionwashtoolkit.files.wordpress.com/2017/09/unicef-global-nutridash-report-2013.pdf>.

⁴ In 2017, this term was redefined from ‘management of acute malnutrition in infants under 6 months’ to ‘management of at-risk mothers and infants under 6 months’ to reflect the profile of the mother-infant pair being identified, their associated risks, and consequently, the wider scope of interventions needed to cater for or support them; these include but are not limited to nutrition.

⁵ The training modules are:

WHO. 2013. *Updates on the Management of Severe Acute Malnutrition in Infants and Children*. Geneva: WHO.

WHO. 2012. *Technical Note on Supplementary Foods for the Management of Moderate Acute Malnutrition in Infants and Children 6–59 Months*. Geneva: WHO.

WHO. 1998, updated in 2017–2018. *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*. Geneva: WHO.

WHO. 2002, updated in 2009. *Training Course on the Management of Severe Acute Malnutrition*. Geneva: WHO.

WHO. 2000. *Management of the Child with Serious Infection or Severe Acute Malnutrition*.

What Is New in the 2018 Revision?

The 2018 revision of this training guide reflects guidance and recommendations from the following publications: *Updates on the Management of Severe Acute Malnutrition in Infants and Children* (WHO 2013), *Updates on HIV and Infant Feeding* (WHO 2016), the *Technical Note on Supplementary Foods for the Management of Moderate Acute Malnutrition in Infants and Children 6–59 Months of Age* (WHO 2012), and the *Joint Statement on WHO Child Growth Standards and the Identification of SAM in Infants and Children* (WHO/UNICEF 2009). The revision also provides additional guidance based on the most recent evidence, lessons learned, and best practices. Below are highlights of the changes made to the training guide:

- 1. Identification, Admission, and Discharge of Children with Acute Malnutrition:** Mid-upper arm circumference (MUAC) and bilateral pitting oedema are used as the primary criteria in the community for the initial screening of acute malnutrition and referral for treatment. Training mothers and family members on MUAC measurement and assessment of bilateral pitting oedema of their children has been added as a strategy to facilitate early case detection and referral for treatment. In addition, the following changes have been made:
 - Admission of children 6–59 months for treatment of SAM is based on a MUAC of <115 mm and any degree of bilateral pitting oedema; for MAM treatment, admission is based on a MUAC of 115 to <125 mm.
 - The weight-for-height/weight-for-length (WFH/WFL) <-3 z-score of the WHO reference standards is also used to admit for treatment of SAM, and WFH/WFL -3 to <-2 z-score is used to admit for treatment of MAM.
 - The same anthropometric indicator used to identify and confirm SAM or MAM on admission is used to determine recovery and discharge from treatment.
- 2. Vitamin A Supplementation in the Treatment of SAM:** A high dose of vitamin A is not given to infants and children if they are receiving therapeutic foods that comply with WHO specifications. A high dose of vitamin A is given on admission only if the therapeutic foods provided are not fortified as recommended in the WHO specifications and vitamin A is not part of other daily supplements.

A high dose of vitamin A is given on day 1 to children with SAM who also have eye signs of vitamin A deficiency and to children with SAM who recently had measles, with a second and a third dose on day 2 and day 15, respectively, regardless of the type of therapeutic food the child is receiving.

- 3. Management of HIV-Infected Children with SAM:** In addition to the recommendations provided in the 2013 WHO updates on the management of SAM in infants and children, treatment of HIV-infected children with acute malnutrition should follow the national HIV protocols. In high prevalence areas, universal testing of children with acute malnutrition is encouraged if HIV status is unknown. If a child is failing to respond to treatment of acute malnutrition, and HIV status is unknown, it is recommended that the child be tested for HIV as part of the routine treatment.
- 4. Management of At-Risk Mothers and Infants under 6 Months of Age (MAMI):** Following the 2013 WHO updates on the management of SAM in infants and children, infants under 6 months should be managed according to the same basic principles as children age 6–59 months, including distinguishing those infants with medical complications from those without medical complications and managing the uncomplicated cases in outpatient care. Currently, there is a lack of evidence on the case management of at-risk mothers and infants under 6 months of age; this includes an ongoing debate on anthropometric and non-anthropometric indicators and what criteria to use to define nutritional risk. While research on MAMI is ongoing, expert opinion and programming experiences from members of the MAMI Special Interest Group have been used to provide guidance in this training guide. The technical content is drawn from and references to the C-MAMI Tool Version 2.0. Prior to country level implementation, it is recommended that users refer to latest evidence and recommendations as details of case management strategies and approaches are evolving rapidly. Additional references are available here: <https://www.ennonline.net/ourwork/research/mami>.

Key guiding principles to the MAMI content in this training guide are as follows:

- Instead of “acute malnutrition”, the term “nutrition vulnerability” is preferred because it captures broader characteristics of the needs of infants under 6 months of age and recognizes that not all these infants are equally vulnerable; for example, some had a low birth weight but are subsequently growing well, while other infants are presently not wasted but are at risk and therefore in need of intervention. It is important that infants “at risk” are distinguished and that the case management identifies and addresses underlying problems such as ability to feed, underlying medical conditions, maternal illness and poor mental health, and adverse social circumstances.
 - Nutritionally vulnerable infants under 6 months of age without complications are managed in outpatient care, whereas nutritionally vulnerable infants with complications are referred for 24-hour inpatient care.
 - Nutrition support, particularly establishment of effective exclusive breastfeeding, is the main intervention in the case management of infants under 6 months.
 - The well-being of an infant is strongly influenced by a mother’s health, mental health, nutrition, and social circumstances; therefore, the mother and infant are best considered as a “mother-infant pair” and are enrolled and managed together.
- 5. Combined Protocol for SAM and MAM Treatment:** In exceptional emergency situations, the combined protocol for SAM and MAM treatment has been provided as an option in the absence of a SFP and/or outpatient care for the management of SAM without medical complications.
 - 6. Strengthening the Health System and Planning and Managing Increased Demand for Acute Malnutrition:** The training guide emphasizes integration of services for management of acute malnutrition into national health care systems where they exist and provides additional guidance and references on how health systems can better cope with periodic peaks in demand for CMAM services.

Emerging Evidence on the Management of Acute Malnutrition

Ongoing research and emerging evidence on the management of acute malnutrition is anticipated to become available in 2018–2020. Some of the priority research topic areas are:

- Effective approaches to detect, diagnose, and treat acute malnutrition
- Appropriate entry and discharge criteria for treatment of acute malnutrition on a continuum to ensure optimal outcomes

- Optimal dosage of ready-to-use food (RUF) for treatment of acute malnutrition
- Effective treatment of diarrhoea in children with SAM
- Rates and causal factors of post-treatment relapse across contexts
- Identification and management of at-risk mothers and of infants under 6 months of age
- Alternative formulations for RUF for acute malnutrition

Where necessary, online links to the research and global discussions on the topic areas have been provided in the training guide modules.

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ABBREVIATIONS AND ACRONYMS

ACF	Action Contre La Faim
ACT	artemisinin-based combination therapy
AED	Academy for Educational Development
ARI	acute respiratory infection
ART	antiretroviral therapy
ARV	Antiretroviral
AWG	average daily weight gain
BCC	behaviour change communication
BMS	breast milk substitute
CBO	community-based organisation
CCC	Community Care Coalition
CDC	U.S. Centers for Disease Control and Prevention
CHC	child health card
CHP	community health promoter
CHPS	Community-Based Health Planning and Services Initiative
CHPS-TA	Community-Based Health Planning and Services Initiative – Technical Assistance
CHW	community health worker
CMAM	community-based management of acute malnutrition
C-MAMI	Community-Based Management of At-Risk Mothers and Infants under 6 Months
CMV	combined mineral and vitamin mix
CRS	Catholic Relief Services
CSAS	centric systematic area sampling
CSB	corn-soy blend
CTC	community-based therapeutic care
DHMT	district health management team
DHS	Demographic Health Survey
DSM	dry skim milk
EBF	exclusive breastfeeding
EDL	Essential Drug List
ENA	Essential Nutrition Actions
ENN	Emergency Nutrition Network
EPI	expanded programme of immunisation
FANTA	Food and Nutrition Technical Assistance Project
FAO	Food and Agriculture Organisation of the United Nations
FBF	fortified blended food
GAM	global acute malnutrition
GHS	Ghana Health Services
GI	Gastrointestinal
GMP	growth monitoring and promotion
GSHIP	Ghana Sustainable Health Project
HBC	home-based care
HEW	health extension worker
HFA	height-for-age
HIRD	High Impact and Rapid Delivery
HIV	human immunodeficiency virus
HMIS	health management information system
IEC	information, education, and communication

IFE	Infant Feeding in Emergencies
IMAM	integrated management of acute malnutrition
IMCI	integrated management of childhood illness
INAAM	Integrated Nutrition Action Against Malnutrition
ITN	insecticide-treated net
IU	international units
IYCF	infant and young children feeding
KCAL	Kilocalories
LFA	length-for-age
LNS	lipid-based nutrient supplement
LOS	average length of stay
LRTI	lower respiratory tract infection
M&E	monitoring and evaluation
MAM	moderate acute malnutrition
MAMI	Management of Acute Malnutrition in Infants Project of the Institute of Child Health
MAMI	management of at-risk mothers and infants under 6 months of age
MCH	maternal and child health
MCHN	maternal and child health and nutrition
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
MSF	Médecins Sans Frontières
MUAC	mid-upper arm circumference
NCHS	National Centre for Health Statistics
NFDM	nonfat dry milk
NGO	nongovernmental organisation
NRC	nutrition rehabilitation centre
NRU	nutrition rehabilitation unit
OI	opportunistic infection
OICI	Opportunities Industrialization Centers International
OPD	outpatient department
OTP	outpatient therapeutic programme
OVC	orphans and vulnerable children
PD	Positive Deviance
PHC	primary health care
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission of HIV
PRA	Participatory Rural Appraisal
QHP	Quality Health Partners
ReSoMal	Rehydration Solution for Malnutrition
RRA	Rapid Rural Appraisal
RUF	ready-to-use food
RUSF	ready-to-use supplementary food
RUTF	ready-to-use therapeutic food
SAM	severe acute malnutrition
SC	stabilisation centre
SC-USA	Save the Children USA
SD	standard deviation
SFP	supplementary feeding programme

SMART	Standardised Monitoring and Assessment for Relief and Transition
SNNPR	Southern Nations, Nationalities, and People's Region
SQUEAC	semi-quantitative evaluation of access and coverage
SST	supplementary suckling technique
SWOT	strengths, weaknesses, opportunities, and threats
TB	Tuberculosis
TF	task force
TFC	therapeutic feeding centre
UN	United Nations
UNICEF	United Nations Children's Fund
UN/SCN	United Nations System Standing Committee on Nutrition
USAID	United States Agency for International Development
VCT	voluntary counselling and testing
WFA	weight-for-age
WFH	weight-for-height
WFL	weight-for-length
WFP	World Food Programme
WHO	World Health Organisation
WSB	wheat-soy blend

TRAINER'S GUIDE

1. Training Participants and Trainers

Participants

The training guide is designed for health care managers and health care providers who manage, supervise, and implement services for the management of SAM. This includes health care providers who are involved in health outreach activities (e.g., health outreach coordinators, community mobilisation coordinators, district supervisors for community health workers [CHWs]). It will also be useful for Ministry of Health (MOH) officials at the national, regional, and district levels; health and nutrition programme managers and technical staff of nongovernmental organisations (NGOs); and United Nations (U.N.) technical staff involved in the management of acute malnutrition in children. The guide is designed to be adapted for the target audience when necessary.

Trainers/Facilitators

At least two trainers/facilitators per 15–25 participants should lead the training. The trainers should be familiar with CMAM and experienced in the practical application of community-based outpatient care for SAM. This overview module contains guidance for trainers/facilitators on planning the course and describes the communication and training methods used in the guide.

Training in the Classroom and the Field

The training methods and activities used throughout the modules will be practical and participatory, building on participants' knowledge, skills, and experience. In addition to the written materials and practical exercises in the classroom, some of the training modules include fieldwork in communities, health facilities, and outpatient and inpatient care sites. This fieldwork complements the theory learned in the classroom and gives participants an opportunity to develop the practical skills required to implement CMAM.

2. Methods and Materials

The full course takes about 11 days and places significant emphasis on developing practical skills. It requires about 4½ days of classroom work and about 6½ days in the field.

Modules

There are eight modules ordered sequentially. Trainers/facilitators may adapt the length of the modules, leave out a module or change the order of the modules according to the context and the target audience's needs. The modules are generic. Every context is different, and trainers/facilitators will need to modify the modules according to the context, guidelines, and national protocols in a given country.

For trainers: The complete trainer course materials include this trainer guidance and information, the eight modules, and participant handouts. The eight modules are designed to be used by trainers/facilitators as guidance and are not intended to be given to participants. An evaluation form, included as a handout at the end of this overview, can be used for each module.

Each module includes:

- An overview
- A table detailing learning objectives and related handouts for classroom work
- A list of materials required, including reference materials (if applicable)
- Advance preparation that the trainer will need to do

- Suggested activities and training methods based on each learning objective, with instructions for the trainer/facilitator
- A wrap-up and evaluation session for the module
- A table detailing learning objectives and related handouts for the field visit (when applicable)
- Suggested activities and methods to be conducted during the field visit (when applicable)

For participants: Participants are given a package that contains handouts for each module.

Additional reference materials:

- *Guideline: Updates on the Management of Severe Acute Malnutrition (SAM) in Infants and Children* (WHO 2013), available at: http://www.who.int/nutrition/publications/guidelines/updates_management_SAM_infantandchildren/en/
- *Guidelines for the Inpatient Treatment of Severely Malnourished Children* (WHO), expected publication in 2018/2019 at www.who.int/nut/publications
- WHO, WFP, United Nations System Standing Committee on Nutrition, and UNICEF 2007 joint statement on community-based management of severe acute malnutrition, available at https://www.unicef.org/publications/index_39468.html
- National guidelines and protocols for SAM, outpatient care, inpatient care, and management of moderate acute malnutrition (MAM)
- Local outpatient care treatment cards, inpatient care treatment cards, supplementary feeding treatment cards, ready-to-use therapeutic food (RUTF) ration cards and supplementary feeding ration cards

The trainers/facilitators will need to provide all other course materials, including videos, blank cards, calculators, pens, and notebooks, as needed.

Methods for Instruction

This course is designed to build upon the participants' knowledge and experience and to be relevant to their needs and the needs of their communities. It uses a variety of training methods including written exercises, practical exercises in small groups, discussions, role-plays, video demonstrations, practice, case studies and guest speakers. These methods give participants a thorough overview of concepts and protocols. The course structure is designed to challenge participants to come up with their own solutions to problems. The practical field component will reinforce theory learned in the classroom and give participants an opportunity to develop the practical skills required to implement services. Descriptions of methods and guidance for conducting trainings with adult learners appear at the end of this module.

Participants also serve as resources for one another. Respect for individual trainees is central to the training, and sharing of experiences is encouraged throughout.

3. Course Planning

Course Time Frame

The approximate time it takes to cover each full module is noted in the table below as a guide for planning purposes. Course plans will vary according to the target audience and the context, and trainers/facilitators should adapt the training modules to suit participants' needs. Trainers may choose to shorten or skip some modules and spend extra time on others depending on the participants' knowledge, skills, and objectives, as well as the training time available. Note that if Module One is skipped for any reason, trainers should give participants the following Module One handouts that are referred to in other modules: **Handout 1.1 Abbreviations and Acronyms**, **Handout 1.2 Terminology for CMAM** and **Handout 1.3 References and Further Reading**.

Module	Approximate Classroom Time	Approximate Site Visit/Field Practice Time
Introduction	1 hour	
1 Overview of Community-Based Management of Acute Malnutrition (CMAM)	1 ½ hour	1 day site visit
2 Defining and Measuring Acute Malnutrition	3 hours	See Module Four
3 Community Outreach	3 ½ hours	1 day field practice
4 Outpatient Care for the Management of SAM Without Medical Complications	8 hours	3 days field practice, during which participants will also practice skills covered in Module Two
5 Inpatient Care for the Management of SAM with Medical Complications in the Context of CMAM	2 hours	½ day site visit
6 Management of Moderate Acute Malnutrition (MAM) in the Context of CMAM	2 hours	½ day site visit
7 Planning CMAM Services at the District Level	8 hours	
8 Monitoring and Reporting on CMAM	5 hours	½ day field practice
Total	34 hours (about 4½ days)	6½ days

Planning the Agenda for a CMAM Training

Trainers/facilitators should develop a course plan that best suits the needs of their participants and their resources. Here are some considerations when planning the training agenda:

- Health care providers (practitioners) will usually complete all classroom modules, one to two days of site visits and 4½ days of practice in the field.
- Health care managers will usually complete all classroom modules and one to two days of site visits.
- Conduct a site visit as soon as possible so participants can see the relevance of the classroom sessions.
- To facilitate the hands-on nature of the field visits, it is ideal to have no more than five to seven participants at the same site at the same time. It might be necessary to schedule visits at multiple sites or times to accommodate all the participants.
- Provide sufficient time for transportation to and from field sites.
- Schedule time for debriefing and discussion of field visits.
- Be aware of the schedules of the sites you are visiting. For example, if outpatient care is available only in the morning, those field visits should be conducted in the morning.

- Schedule time on the first and last days for formal opening and closing of the overall training, as necessary and appropriate.

Training Tasks and Responsibilities: Key Points for Preparation and Planning Before Training

It is necessary to plan for optimal outcomes well before the training. The following checklist outlines some essential tasks and responsibilities. The list should be adapted for the specific needs of a given training. Trainers/facilitators and key stakeholders in the participants' organisations should decide who is responsible for each task.

1. Setting the Objectives and Expectations of the Training

- Identify and collaborate with appropriate organisations and partners.
- Trainers/facilitators and organisations together identify the desired **goals and objectives**.
- Commit resources.
- Develop a training strategy to achieve the results, including refresher trainings and follow-up.
- Establish and commit to a system of supervision/mentoring.

2. Participant Selection

- Establish participant selection criteria.
- Know the audience (number and type of participants, e.g., MOH, NGO, doctors, nurses, auxiliaries, CHWs, health care managers, health care providers).
- Inform participants of the purpose of the training and clarify their roles and responsibilities after training (i.e., clear job expectations).
- Ask participants to bring relevant materials to share:
 - Nutrition surveys according to district/region
 - Information on health, nutrition and undernutrition preventive and curative services in their communities and countries
 - Information on the context of their health system: How it works, whether it is centralised or de-centralised, who operates in key areas (e.g., NGO, MOH)

3. Understanding the Participants' Context: Mini-Situation Analysis

- Identify the problem in participants' settings:
 - Emergency/development
 - Urban/rural
 - Seasonal challenges
- Identify national guidelines for the management of SAM and MAM.
- Research nutrition surveys according to district/region.
- Investigate health, nutrition and undernutrition preventive and curative services in participants' communities and countries.
- Describe the context of participants' health systems: how they work, whether they are centralised or de-centralised, who operates in key areas (e.g., NGO or MOH).

4. Training Content

- Adapt course content to the context; limit the content to what participants need to perform their professional responsibilities well.
- Ensure that course materials are consistent with national guidelines on indicator cutoffs for admission and discharge, mid-upper arm circumference (MUAC) or use of weight-for-height/weight-for-length (WFH/WFL) as determined by the WHO child growth standards.
- Prepare the training agenda and identify persons responsible for each element.
- Establish evaluation criteria.

5. Logistics

- Identify training days and times.
- Determine the training location (establish criteria for adequate workspace, supplies, equipment, job aids).
- Identify guest speakers, if applicable, ensure their availability and determine possible logistical needs (e.g., specific timing, transportation)
- Identify locations for the field visits.
- Plan the field visits with the sites' supervisors and staff:
 - Review the schedule of visits.
 - Ensure that staffing and supplies are sufficient.
 - Ensure that site-based resource persons can participate.
 - Consider doing a field visit as early as possible in the training. .
- Organise transportation for the field visits.
- Plan for any language barriers (between trainer and participants or between participants and locals). When available, pair participants with translators or community members who speak their language and the local language. Arrange for the translators (e.g., transportation if needed, compensation if applicable).
- Invite participants.

ANNEX 1. PRINCIPLES OF ADULT LEARNING

1. **Dialogue:** Adult learning is best achieved through dialogue. The majority of adults have adequate life experience to dialogue with any teacher about any subject and will learn new attitudes or skills best in relation to that life experience. Dialogue must be encouraged and used in formal training, informal talks, one-on-one counselling sessions or any situation where adults learn.
2. **Safety in environment and process:** Make people feel comfortable about the possibility of making mistakes. Adults are more receptive to learning when they are both **physically and psychologically comfortable**.
 - Physical surroundings (e.g., temperature, ventilation, overcrowding, light) can affect learning.
 - Learning is best done when there are no distractions.
3. **Respect:** Appreciate learners' contributions and life experience. Adults learn best when their experience is acknowledged and when new information builds on their past knowledge and experience (see "Relevance to previous experience" below).
4. **Affirmation:** Learners need to receive praise for even small attempts. They need to be sure they are correctly recalling or using information they have learned.
5. **Sequence and reinforcement:** Start with the easiest ideas or skills and build on them. Introduce the most important ones first. Reinforce key ideas and skills repeatedly. People learn faster when information or skills are presented in a structured way.
6. **Practice:** Allow learners to practice first in a safe place and then in a real setting.
7. **Ideas, feelings, and actions:** Learning takes place through thinking, feeling, and doing and is most effective when it involves all three.
8. **20/40/80 rule:** We remember 20 percent of what we hear, 40 percent of what we hear and see, and 80 percent of what we hear, see, and do. Learners remember more when visuals are used to support the verbal presentation, and they remember best when they practice the new skill.
9. **Relevance to previous experience:** People learn faster when new information or skills are related to what they already know or can do.
 - **Immediate relevance:** People learn best when they can apply to the new topic things that they have learned in life or on the job.
 - **Future relevance:** People generally learn faster when they recognise that what they are learning will be useful in the future.
10. **Teamwork:** Encourage people to learn from one another and solve problems together. This makes learning easier to apply to real life.
11. **Engagement:** Involve learners' emotions and intellect. Adults prefer to be **active participants** in learning rather than passive recipients of knowledge. People learn faster when they actively process information, solve problems, or practice skills.
12. **Accountability:** Ensure that learners understand and know how to put what they have learned into practice.

13. **Motivation:** People learn faster and more thoroughly when they want to learn. The trainer's challenge is to create conditions in which people want to learn.
- Learning is natural, as basic a function of human beings as eating or sleeping.
 - Some people are more eager to learn than others, and even within an individual, there are different levels of motivation.
 - The principles outlined here will help the learner become motivated.
14. **Clarity**
- Messages should be clear.
 - Words and sentence structures should be familiar.
 - Trainers should explain technical words and make sure the learners understand the terms.
 - Messages should be VISUAL.
15. **Feedback:** Feedback informs the learner about her/his strengths or weaknesses.

Adapted from J. Vella. 1994. *Learning to Listen, Learning to Teach*.

ANNEX 2. TRAINING METHODS AND HOW TO USE THEM

Training Method	How to Use
Group discussion: A group of no more than seven participants discuss and summarise a given subject or theme. The group selects a chairperson, a recorder and/or someone to report to plenary.	Outline the discussion's purpose and write questions and tasks clearly to provide focus and structure. Allow enough time for all groups to finish the task and give feedback. Announce remaining time at regular intervals. Ensure that participants share or rotate roles.
Buzz group: Two to three participants discuss their immediate reactions to information presented and share examples and experiences.	Clearly state the topic or question to be discussed along with the objectives.
Brainstorm: A spontaneous process through which group members' ideas and opinions on a subject are voiced and written for selection, discussion, and agreement. All opinions and ideas are valid.	State clearly the brainstorming rule that there is no wrong or bad idea. Ask for a volunteer to record the ideas.
Plenary: The entire group comes together to share ideas.	Appoint a timekeeper. Pose a few questions for group discussion.
Role-play: Participants act out a specific situation based on the details about the "person" they are asked to play.	Structure the role-play well, keeping it brief and clear in focus. Give clear and concise instructions to participants.
Case study: Pairs or small groups are told or read about a specific situation, event or incident and asked to analyse and solve it.	Make the situation, event or incident real and focused on the topic.
Demonstration: A resource person performs a specific task, showing others how to do it. The participants then practice the same task.	Demonstrate the appropriate and inappropriate ways to perform a task and discuss the differences. Have participants perform the task and give them feedback.
Field visit: Participants and trainers/facilitators visit a health facility or community setting to observe a task or procedure and then practice.	Before the visit, coordinate with the site, give participants clear directions before arrival, and divide them into small groups accompanied by a facilitator. Meet with the site supervisor, staff, or other representative on arrival. Provide opportunity to share experiences and give and receive feedback.

Action plan preparation: Participants synthesise knowledge, skills, attitudes, and beliefs into a doable plan. This bridges classroom activities with practical application at work site.	Share action plans.
Talk/presentation: A speaker shares information, sometimes using audio or visual aids.	Start with a story or visual that captures the audience's attention. Present an initial case problem around which the talk/presentation will be structured. Ask participants test questions even if they have little prior knowledge to motivate them to listen to the talk/presentation for the answer. Set a time limit. Allow time for feedback, comments, and questions. Pose a question for participants to solve based on the talk/presentation.

ANNEX 3. SUGGESTED REVIEW ENERGISERS (GROUP AND TEAM BUILDING)

1. The participants and trainers form a circle. One trainer throws a ball to a participant and asks the participant a question. When the participant answers correctly to the group's satisfaction, she/he throws the ball to another participant and asks another question. The process is repeated until all participants answer a question satisfactorily.
2. The participants form two rows facing each other, each row representing a team. A participant from one team/row asks a question of the participant opposite him/her in the facing team/row. The participant answering the question can ask for him/her team's help with the question. When the question is answered correctly, the responding team earns a point and then asks a question of the other team. If the question is not answered correctly, the team that asked the question responds and earns the point. The team with the most points wins.
3. The participants form two teams. Each person receives a written answer to a question that the facilitator will ask. When a question is asked, the participant who believes she/he has the correct answer reads the answer. If correct, the person scores a point for his/her team. The team with the most points wins.
4. A participant picks a question from a basket and answers it; other participants give feedback. The process is repeated for the other participants.

HANDOUT – EVALUATION FORM FOR MODULE

1. Did the information presented meet the module's objectives?
2. What information would you like to see more in-depth?
3. What information was not particularly useful/helpful?
4. Were the materials presented in the module useful overall?
5. What materials were particularly useful? Please describe.
6. What materials were not useful? Please describe.
7. Do you feel you mastered the skill(s) needed for a given exercise/field practice?
8. How could the exercises/field practice be improved?
9. Which exercises or field practice sessions do you think worked best?
10. How could this module be improved to meet the objectives?
11. Do you have any suggestions on the training mechanics (e.g., training space, site visits, visual presentations, length of the course)?

Please feel free to use the other side to continue responses. Thank you!

MODULE ONE: OVERVIEW OF COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION (CMAM)

Module Overview

This module is a general orientation and overview of community-based management of acute malnutrition (CMAM). It describes the extent of the problem of acute malnutrition, and outlines the key concepts, principles, and components of CMAM. The module also discusses ready-to-use therapeutic food (RUTF) and the use of mid-upper arm circumference (MUAC) as a rapid screening and admission tool for potential beneficiaries. The module briefly looks at the evidence to date and notes how CMAM might be applicable in different contexts and incorporated into routine health services, national policies, and guidelines. In addition, global commitments to CMAM are mentioned.

CMAM evolved from Community-Based Therapeutic Care (CTC), a community-based approach for the management of acute malnutrition developed in 2001. The CMAM approach consists of four main components: community outreach, outpatient care for the management of SAM without medical complications, inpatient care for the management of SAM with medical complications, and programmes for the management of moderate acute malnutrition (MAM), such as a supplementary feeding programme (SFP). In some countries, CMAM is referred to as the integrated management of acute malnutrition (IMAM).

Learning Objectives	Duration	Handouts and Exercises
Introduce Participants, Training Course, Modules, and Course Objectives	10 minutes	Handout 1.1 Abbreviations and Acronyms Handout 1.2 Terminology for CMAM PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
1. Discuss Acute Malnutrition and the Need for a Response	10 minutes	Handout 1.3 Key Information on Undernutrition PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
2. Identify the Principles of CMAM	10 minutes	Handout 1.4 CMAM Principles PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
3. Describe Innovations and Evidence Making CMAM Possible	15 minutes	Handout 1.5 Classification of Acute Malnutrition for CMAM Handout 1.6 Screening, Admission, and Discharge Using MUAC PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM) RUTF packets Coloured MUAC tapes (designed for use in community-based programmes)
4. Identify the Components of CMAM	15 minutes	Handout 1.7 CMAM Components and How They Work Together

and How They Work Together		PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
5. Explore How CMAM Can Be Implemented in Different Contexts	15 minutes	Handout 1.8 Case Studies Handout 1.9 Implementing CMAM in Different Contexts Handout 1.10 Factors to Consider in Seeking to Provide Services for the Management of SAM Handout 1.11 Integrating CMAM into Routine Health Services at the District Level PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
6. Identify Key National and Global Developments and Commitments Relating to CMAM	10 minutes	2007 joint statement on community-based management of severe acute malnutrition by WHO, WFP, the UN/SCN, and UNICEF PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)- <i>also see Handout 1.14 PowerPoint Presentation Slide Images.</i>
Wrap-Up and Module Evaluation	5 minutes	Handout 1.12 Essentials of CMAM
Field Visit to Outpatient Care Site	1 day	Handout 1.13 Field Visit Checklist

Module Duration: 1½ hours in classroom followed by a one-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 learning objectives and activities.

Materials

- Computer and projector for PowerPoint: Overview of Community-Based Management of Acute Malnutrition (CMAM)
- Sticky notes or coloured cards
- Flip chart and markers
- Masking tape
- RUTF packets
- Coloured MUAC tapes
- World Health Organisation (WHO), World Food Programme (WFP), the United Nations System Standing Committee on Nutrition (UN/SCN), and the United Nations Children's Fund (UNICEF). 2007. *Community-Based Management of Severe Acute Malnutrition: A Joint Statement*. https://www.unicef.org/publications/files/Community_Based_Management_of_Sever_Acute_Malnutrition.pdf.

Advance Preparation

- Room setup, materials noted above
- Review and, if necessary, adapt “Overview of CMAM” PowerPoint presentation (this may include removing, adding, or reorganising slides). Review all participant handouts.
- **Optional:** Arrange for a guest speaker(s) to discuss the design and planning of a CMAM intervention. The speaker should preferably be someone from the Ministry of Health (MOH) (regional or district level) who has experience in planning and setting up CMAM services. The speaker can also be someone from a nongovernmental organisation (NGO) who has worked closely with the MOH. (Give guidance on the case study to be presented if a guest speaker is invited.)
- Review relevant reference resources and further reading resources listed below.

Reference Resources

1. World Health Organisation (WHO). 2013. *Guideline: Updates on the Management of Severe Acute Malnutrition in Infants and Children*. Geneva: WHO. Available at: http://www.who.int/nutrition/publications/guidelines/updates_management_SAM_infantandchildren/en.
2. WHO and UNICEF. 2009. *WHO Child Growth Standards and Identification of Infants and Children with Severe Acute Malnutrition: A Joint Statement*. Available at: <http://www.who.int/nutrition/publications/severemalnutrition/9789241598163/en/>.
3. WHO, World Food Programme (WFP), the United Nations System Standing Committee on Nutrition (UN/SCN), and UNICEF. 2007. *Community-Based Management of Severe Acute Malnutrition: A Joint Statement*. Available at: https://www.unicef.org/publications/files/Community_Based_Management_of_Sever_Acute_Malnutrition.pdf.
4. Valid International. 2006. *Community-based Therapeutic Care: A Field Manual*. Oxford: Valid International. Chapters 9 and 10. Available at: <https://www.fantaproject.org/sites/default/files/resources/CTC-Field-Manual-Oct2006-508.pdf>.

Further Reading Resources

1. Bhutta, Z.A. et al. 2017. “Severe Childhood Malnutrition.” *Nature Reviews Disease Primers*. 3, 17067. Available at: <https://www.nature.com/articles/nrdp201767>.
2. Council of Research & Technical Advice on Acute Malnutrition (CORTASAM). 2018. *A Research Agenda for Acute Malnutrition*. Available at: https://static1.squarespace.com/static/58da81cdd1758e39ca705526/t/5a5cbfcdf9619a9a191c6f34/1516027854696/NoWastedLives_Research_Agenda_2018.pdf.
3. UNICEF/WHO/World Bank. 2017. *Levels and Trends in Child Malnutrition*. UNICEF, WHO and World Bank Group. Available at: <http://www.who.int/nutgrowthdb/estimates2016/en/>.
4. UNICEF. 2013. *Evaluation of Community Management of Acute Malnutrition: Global Synthesis Report*. Available at: https://www.unicef.org/evaldatabase/index_CMAM.html.
5. Bhutta, Z.A. et al. 2013. “Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?” *The Lancet* maternal and child health series. Available at: <https://www.thelancet.com/series/maternal-and-child-nutrition>.
6. Caulfield, L.; de Onis, M.; Blössner, M.; and Black, R. 2004. “Undernutrition as an Underlying Cause of Child Deaths Associated With Diarrhea, Pneumonia, Malaria, and Measles.” *American Journal of Clinical Nutrition*. 80:193–8.

7. Collins, S. 2004. "Community-Based Therapeutic Care: A New Paradigm for Selective Feeding in Nutritional Crisis." *Humanitarian Practice Network Paper 48*, Overseas Development Institute (ODI). Available at: www.validinternational.org.
8. Collins, S. et al. 2006. "Management of Severe Acute Malnutrition in Children." *Lancet*. 368:1992–2000. Available at: www.validinternational.org.
9. Collins, S. and Yates, R. 2003. "The Need to Update the Classification of Acute Malnutrition." *Lancet*. 362:249.
10. Diop, E. et al. 2003. "Comparison of the Efficacy of a Solid Ready to Use Food and Liquid Milk Based Diet for the Rehabilitation of Severely Malnourished Children: A Randomized Trial. *American Journal of Clinical Nutrition*. 78:302–7.
11. Gatchell, V.; Forsythe, V.; and Rees Thomas, P. *The Sustainability of Community-Based Therapeutic Care (CTC) in Non-Acute Emergency Contexts. WHO Technical Background Paper*. Available at: http://www.who.int/nutrition/topics/backgroundpapers_The_sustainability.pdf.
12. Gross, R. and Webb, P. 2006. "Wasted Time for Wasted Children: Severe Child Undernutrition Must Be Resolved in Non-Emergency Settings." *Lancet*. 367:1209–1211. Available at: www.thelancet.com.

Module 1 Introduce Participants, Training Course, Modules, and Course Objectives

TRAINER: Become familiar with **Handout 1.1 Abbreviations and Acronyms** and **Handout 1.2 Terminology for CMAM**.

ICEBREAKER: PRESENTATION OF NEIGHBOUR. Ask participants to introduce themselves and say a little about why they are attending the training, what their interest is in attending the course, and how they plan to use the skills they will acquire.

ALTERNATIVE ICEBREAKER: Ask participants to pair up and interview each other about their experience with programmes managing acute malnutrition. Have them ask each other whether they are involved in services or programmes to address severe acute malnutrition (SAM) or moderate acute malnutrition (MAM), and whether the service/programme is community-based or facility-based, etc. Then, have participants introduce their partners and share this information. Discuss similarities and varieties of experiences.

POWERPOINT: PRESENTATION OF COURSE PURPOSE AND OBJECTIVES (Show slide 1). Ask participants to write three things they expect to gain from the training on cards or sticky notes, one expectation per card. Collect the expectations and group similar ones together. Post the expectations in the training room and discuss them.

PRESENT THE COURSE PURPOSE AND OBJECTIVES (SLIDES 1–2). Compare the learning objectives to participants' expectations, and explain which expectations are likely and unlikely to be met during the training. Leave the expectations posted during training and review them at the end of each day.

Tell participants that a flip chart will be kept free to post ideas, questions, and suggestions that arise throughout the course (often referred to as a “parking place”). Check the parking place periodically throughout the course and respond.

Refer participants to **Handout 1.1 Abbreviations and Acronyms** and **Handout 1.2 Terminology for CMAM**. Ask them to use them as reference tools and invite questions now or at any point in the training.

Module 1 Learning Objective 1: Discuss Acute Malnutrition and the Need for a Response

TRAINER: Become familiar with **Handout 1.3 Key Information on Undernutrition.**

BRAINSTORM: UNDERNUTRITION AS A PUBLIC HEALTH CONCERN. Ask participants to contemplate the statement “Undernutrition is a public health concern” and to brainstorm reasons whether and why this statement is true.

PARTICIPATORY LECTURE: INTRODUCTION TO ACUTE MALNUTRITION. Ask participants “What is acute malnutrition?” and “Why is a focus on acute malnutrition important?” Discussion should touch on the difference between MAM and SAM, and text from **Handout 1.3 Key Information on Undernutrition.**

	Bilateral Pitting Oedema	MUAC	WFH z-score (WHO standards)
SAM	Present	< 115 mm	< -3 z-score
MAM	Not present	≥ 115 mm and < 125 mm	≥ -3 and < -2

POWERPOINT: UNDERNUTRITION AND ACUTE MALNUTRITION. (Show slides 3–6.)

- Slide 3: Explain undernutrition and its types.
- Slide 4: Ask participants what they see and to describe the nutritional status of all three children. Tell participants all three children are the same age. Discuss how this changes their impressions of the children’s nutritional status. Note: The child on the left is stunted, the middle child is normal, and the child on the right is wasted and probably stunted as well.
- Slide 5 and 6: Remind participants that wasting contributes to 875,000 deaths of children under 5 each year. The *Lancet* series and the UNICEF/WHO/World Bank joint child malnutrition estimates highlight the extent of the problem of acute malnutrition. Note to participants that:
 - Acute malnutrition does not just occur in emergencies and is not limited to Africa.
 - Wasting occurs in both emergencies and non-emergencies.
 - Acute malnutrition is not only caused by inadequate food intake but a combination of factors including underlying infections and environmental factors.
 - India and Pakistan (non-emergency settings) have the highest number of children with wasting.
 - Ranking is based on absolute numbers and will change when based on overall wasting.

Module 1 Learning Objective 2: Identify the Principles of CMAM

TRAINER: Become familiar with **Handout 1.4 CMAM Principles**.

BUZZ GROUPS: WHAT IS CMAM? Have participants form groups of two or three to quickly name, if they can, a few key facts about CMAM. Write responses on a flip chart.

POWERPOINT: INTRODUCTION TO CMAM (Show slides 7–14.) Highlight the four main components:

1. Community outreach
2. Outpatient care for SAM without medical complications
3. Inpatient care for SAM with medical complications
4. Services or programmes for management of MAM can be provided depending on the context

DISCUSSION: CMAM. Ask participants to quickly highlight some advantages and disadvantages of CMAM services. Discuss and write responses on a flip chart and be prepared to return to this topic.

POWERPOINT: PRINCIPLES OF CMAM (Show slides 15–17.) Refer participants to **Handout 1.4 CMAM Principles** and review briefly together. Explain that in bringing together the four main components of CMAM, services can be carried out according to the following key principles:

1. Maximum access and coverage
2. Timeliness
3. Appropriate medical and nutrition care
4. Care for as long as it is needed

POWERPOINT: KEY PRINCIPLE 1. MAXIMUM ACCESS AND COVERAGE (Show slides 18–20.) Slide 19: Explain that establishing decentralised outpatient care sites increases access and geographic coverage of services.

POWERPOINT: KEY PRINCIPLE 2. TIMELINESS (Show slides 21–24.) Slide 23: Note to participants that this is a child with SAM who is still alert, likely has a good appetite, and can be treated as an outpatient. Timely identification also helps us identify children with MAM before it deteriorates to SAM. The coloured strip measures MUAC in infants and children. Outreach workers (e.g., community health workers [CHWs], volunteers), mothers and other family members (e.g., aunts, grandmothers, and fathers) can easily identify children with acute malnutrition using MUAC tape and can be trained to recognise bilateral pitting oedema. This makes it easy to identify children with acute malnutrition in the community.

POWERPOINT: KEY PRINCIPLE 3. APPROPRIATE MEDICAL AND NUTRITION CARE (Show slides 25–26.) Slide 26: An assessment of the medical condition following the integrated management of childhood illness (IMCI) approach as well as an appetite test will determine whether the infant or child can be treated as an outpatient with regular visits to the health facility or must be referred to inpatient care.

POWERPOINT: KEY PRINCIPLE 4. CARE FOR AS LONG AS IT IS NEEDED (Show slides 27–28.)

DISCUSSION: Ask participants if they have further thoughts on the advantages or disadvantages of CMAM. Then ask how each component contributes to achieving the principles.

Module 1 Learning Objective 3: Describe Innovations and Evidence Making CMAM Possible

TRAINER: Become familiar with **Handout 1.5 Classification of Acute Malnutrition for CMAM** and **Handout 1.6 Screening, Admission, and Discharge Using MUAC**.

ELICITATION: Ask participants if any can name innovations that have made CMAM possible. Direct conversation to the following three innovations:

1. Availability of RUTF
2. Classification of acute malnutrition for CMAM
3. Screening, admission, and discharge using MUAC

POWERPOINT: AVAILABILITY OF RUTF (Show slides 29–33.)

Slide 30: Explain that RUTF is an oil-based paste with very low water content. It does not grow bacteria even when accidentally contaminated. It is safe to use in most environments. It is energy-dense but the quantity of proteins, fat, vitamins, and minerals per 100 kilocalories (kcal) is equivalent to that of F100, recommended by WHO for the inpatient treatment of SAM. RUTF can be eaten straight from the packet or pot and can be consumed easily by children from the age of 6 months. No water is added.

Slide 31: RUTF has several advantages. It can be kept in simple packaging for several months without refrigeration. RUTF can be kept for several days even when opened. Also, RUTF contains iron, vitamin A, and several other micronutrients needed for the SAM child to recover.

Slide 32: RUTF can be produced locally using simple equipment. However, thorough inspections and quality control are needed for local production to ensure that there is no risk of contamination of the ingredients and that the product has the right composition and quality. The cost for local production can vary based on availability of ingredients and the capacity of local manufacturers.

DEMONSTRATION: FAMILIARIZATION WITH RUTF AND ITS PACKAGING. After the PowerPoint slides, distribute RUTF packets so that participants can familiarize themselves with the product.

POWERPOINT: ACUTE MALNUTRITION CLASSIFICATION FOR CMAM (Show slides 34–35.)

Slide 34: Note to participants that in the past, acute malnutrition was divided into two categories that determined the mode of treatment.

Slide 35: An updated classification has been proposed for use in CMAM: dividing the category for children with SAM into SAM with medical complications and SAM without complications.

ELICITATION: COMPARING THE TWO CLASSIFICATIONS. Ask participants what has changed between the two classifications and what implications this has for treating children with SAM. Fill in the gaps:

- The new classification recommends that children with SAM and medical complications be treated in inpatient care until their condition is stabilised. This ensures that children with increased mortality risk are treated appropriately.

- It also recommends that those with SAM with appetite and without medical complications be treated in outpatient care.

Ask participants about critical factors in identifying children with medical complications. Note that the most critical indicator of whether a child with SAM requires inpatient or outpatient care is APPETITE.

POWERPOINT: SCREENING, ADMISSION, AND DISCHARGE USING MUAC (Show slides 36–38.)

Slide 36: Note that:

- MUAC makes it easy to understand how children are classified and whether they will qualify for treatment. This increases transparency and community support for service delivery.
- MUAC is simple to use. A MUAC tape can be used by one person and is easily transportable. It can fit into a pocket. It also does not require literacy, numeracy, or additional equipment. This makes it easy to use at the community level, increasing the likelihood of early identification and presentation. However, simple training is needed to ensure correct use of the MUAC tape.

Slide 37: Note that:

- MUAC is used for identification of acute malnutrition during screening at the community level admission and discharge from treatment at the health facility. Using MUAC alone for admission means that all children who are referred by CHWs and who come to outpatient care would be admitted and therefore would not be rejected if they do not meet the weight-for-height (WFH) criteria for admission.
- Using MUAC alone as an independent criterion for identification, admission, and discharge for treatment of SAM is recommended by WHO.
- There is recent emerging evidence on the use of MUAC to identify nutritionally vulnerable in **infants under 6 months**. However, a classification cutoff for this age group has not yet been established. Countries and programmes are encouraged to collect MUAC data for infants under 6 months to help build the evidence base for cutoffs and case management.

DEMONSTRATION: FAMILIARISATION WITH MUAC TAPES. Distribute coloured MUAC tapes and briefly show how they are used. Allow participants to familiarise themselves with them. Refer participants to **Handout 1.6 Screening, Admission, and Discharge Using MUAC** and review the categorisation by colour and what they mean. Answer any questions.

Module 1 Learning Objective 4: Identify the Components of CMAM and How They Work Together

TRAINER: Become familiar with **Handout 1.7 CMAM Components and How They Work Together**.

POWERPOINT: CMAM COMPONENTS (Show slides 39–51). Review the four components of CMAM (below) and refer participants to **Handout 1.7 CMAM Components and How They Work Together** for future reference.

1. Community outreach
2. Outpatient care for SAM without medical complications
3. Inpatient care for SAM with medical complications
4. Programmes for MAM (e.g., SFPs, depending on the context)

POWERPOINT: HOW THE COMPONENTS OF CMAM WORK TOGETHER (Show slides 52–53.)

Slide 52: Point out each of the components and ask participants why the circles are of different sizes. Explain that:

- If community outreach is effective and intervention is timely, children with acute malnutrition will be identified early and most will have MAM without medical complications. They can then be referred to programmes to treat MAM.
- More than 80 percent of those with SAM will have no medical complications and will qualify for outpatient care.
- The few children with SAM who have medical complications or no appetite will require referral to inpatient care.

GROUP DISCUSSION: HOW THE COMPONENTS WORK TOGETHER. Have participants break into groups of four to five people, show slide 52 (Components of CMAM), and ask the groups to discuss:

- The component where children most at risk are treated
- The component where children at medium risk are treated
- The component where children at lower risk are treated

Ask groups to diagram the movement of the following child among CMAM components based on the information below. Ask the questions below one at a time and make sure the groups have answered the current question before you ask the next question

- Identified by community-level screener with red MUAC
 - Where does the child go next? (outpatient care)
- In outpatient care, the child is found to have red MUAC and medical complications
 - Where does the child go next? (inpatient care)
- The child's medical complications resolve, but s/he still has red MUAC
 - Where does child go next? (outpatient care)
- The child has been in treatment for the minimum amount of time and MUAC shows s/he is now moderately malnourished
 - Where does the child go next? (programmes for management of MAM, e.g., supplementary feeding, if available)

Ask participants to discuss their own experiences with implementing the different components.

Module 1 Learning Objective 5: Explore How CMAM Can Be Implemented in Different Contexts

TRAINER: Become familiar with **Handout 1.8:** Case Studies, **Handout 1.9:** Implementing CMAM in Different Contexts, **Handout 1.10:** Factors to Consider in Providing Services for the Management of SAM, and **Handout 1.11:** Integrating CMAM into Routine Health Services at the District Level.

WORKING GROUPS: Ask participants to form groups of five or six. Give each group **Handout 1.8: Case Studies**. Ask the groups: "Which case study best represents your working context, and why"? Ask the groups to present back and then discuss. If not raised in discussion, ask whether the context was an emergency setting or not, whether CMAM services were integrated into routine health services, and whether there was a high HIV prevalence rate.

POWERPOINT: CMAM IN DIFFERENT CONTEXTS (Show slides 54–55.) Highlight to participants the following characteristics of CMAM in different contexts:

- **Emergency and post-emergency settings:** CMAM works well in an emergency context because large numbers of children with acute malnutrition can be reached, due to the availability of external financial and technical resources to introduce or strengthen services.
- **Non-emergency context:** CMAM can take place in the context of ongoing health programming. Inpatient care takes place at existing health facilities with 24-hour care (e.g., hospitals, health centres with hospitalisation), while outpatient care operates at the first-level health facility (e.g., health centres, clinics, health posts).
- **In high HIV prevalence areas:** A large proportion of children with SAM in inpatient and outpatient care will be HIV-positive. Most HIV-positive children with SAM will benefit from community-based treatment with RUTF. Strong linkages between CMAM, HIV testing and counselling, and treatment services (i.e., offering antiretroviral [ARV] and cotrimoxazole prophylaxis) are essential.

WORKING GROUPS: INTEGRATING CMAM INTO EXISTING HEALTH SERVICES. With participants in the same working groups, refer them to **Handout 1.11 Integrating CMAM into Routine Health Services at the District Level**. Ask participants to read it quietly and then discuss what programmes in their district could be integrated with CMAM and how. Ask them to take into account the factors outlined in **Handout 1.10 Factors to Consider in Providing Services for the Management of SAM**.

Module 1 Learning Objective 6: Identify Key National and Global Developments and Commitments Relating to CMAM

TRAINER: Become familiar with the **WHO, WFP, UN/SCN, and UNICEF 2007 Joint Statement on Community-Based Management of Severe Acute Malnutrition**.

POWERPOINT: GLOBAL COMMITMENT FOR CMAM (Show slides 56–57.)

DISCUSSION: Distribute the **WHO, WFP, UN/SCN, and UNICEF 2007 Joint Statement on Community-Based Management of Severe Acute Malnutrition** and briefly review the contents together. Make particular note of the joint statement's support for:

- Adopting national policies and programmes to:
 - Ensure that national protocols for management of SAM have a strong community component
 - Achieve high coverage through reaching children who need treatment through effective community outreach and active case-finding
 - Provide training and support for CHWs to identify children with SAM and to recognise those with medical complications that need urgent referrals
 - Provide training for improved management of SAM at all levels so there is an effective integrated approach (i.e., combined inpatient and outpatient care)
- Provide the resources needed for effective management of SAM including:
 - Making RUTF available in community-based services and programmes as well as other essential items (e.g., F75, ReSoMal, scales, MUAC tapes)
 - Encouraging national production of RUTF
 - Ensuring funding to provide free treatment for SAM
- Link CMAM with other health and nutrition activities, including IMCI and prevention services

Further, highlight to the participants additional global commitments on the management of acute malnutrition in the past 10 years:

- WHO and UNICEF joint statement on child growth standards and identification of SAM in infants and children (2009) – calls for identification and admission of infants and children with SAM using MUAC and the use of weight for height (WFH) z-score of the WHO growth standards.
- WHO update on the management of SAM in infants and children (2013), which provides updated evidence and best practices to inform the management of SAM in outpatient and inpatient care
- A new UN (WHO/UNICEF/WFP) joint statement, expected to be released in 2018/19, that will reflect on the emerging evidence and global commitments on the management of acute malnutrition

DISCUSSION: Ask a few participants to give examples of national commitments and policies regarding CMAM.

GUEST SPEAKER: Listen to a guest speaker share his/her experiences in planning, implementing, and integrating a CMAM programme.

Module 1 Wrap-Up and Module Evaluation

SUGGESTED METHOD: REVIEW OF LEARNING OBJECTIVES AND COMPLETION OF EVALUATION FORM

- Review the learning objectives of the module. In this module you have:
 1. Discussed acute malnutrition and the need for a response
 2. Identified the principles of CMAM
 3. Described innovations and evidence making CMAM possible
 4. Identified the components of CMAM and how they work together
 5. Developed an appreciation for the issues related to implementing CMAM
 6. Explored how CMAM can be implemented in different contexts
 7. Identified key national and global commitments relating to CMAM
- Ask for any questions and feedback on the module.
- Direct participants to **Handout 1.12 Essentials of CMAM** for future reference.
- Tell participants that they will have an opportunity to observe procedures and talk with staff during the field visit.
- Ask participants to complete the module evaluation form.*

*The evaluation form can be distributed at the end of each day or periodically, depending on trainers' preferences.

FIELD VISIT TO OUTPATIENT CARE SITE

Overview

- Trainer: Become familiar with Handout 1.13 Field Visit Checklist.
- A maximum of five participants should be at each outpatient care 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 both the local language and the participants' language.
- Introduce participants to the person in charge.

Learning Objectives

1. Observe the following activities:
 - How nutritionally vulnerable at-risk mothers and infants under 6 months of age are admitted and discharged, if possible
 - How children with SAM are admitted and discharged, if possible
 - How children with SAM are treated and evaluated in outpatient care follow-on sessions (e.g., anthropometric measurement, medical assessment, supply of RUTF)
 - How nutritionally vulnerable at-risk mothers and infants under 6 months are managed and monitored in outpatient care follow-on sessions (feeding assessment, medical assessment, anthropometric measurements, counselling, and feeding support)
2. Discuss with staff the following:
 - What do they like and dislike about the CMAM service?
 - How does this service affect their overall workload?
 - What shortcomings or problems do they see with the service?
 - How do they work with outreach workers (e.g., CHWs, volunteers)?
 - How do they link with other health services (e.g., expanded programme of immunisation [EPI], HIV testing and counselling)?
 - What type of support is provided to the child's family after the child is discharged (e.g., social protection including cash transfers, agricultural support, infant and young child feeding [IYCF] counselling)
3. Talk with mothers/caregivers:
 - How did they find out about the service?
 - What do they like and dislike about the service?

Activity: Feedback on Field Visit Session

After the field visit, conduct a feedback session in which participants will:

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

MODULE TWO: DEFINING AND MEASURING ACUTE MALNUTRITION

Module Overview

This module reviews common nutrition and anthropometric terms and the causes of undernutrition and provides practical skills on how to measure acute malnutrition, and nutrition vulnerability in at-risk mothers and infants under 6 months of age.

The module will give field implementers an overview of methods used to determine the nutritional status of an infant or child: testing for bilateral pitting oedema; using mid-upper arm circumference (MUAC), weight, height, and age as measures; and assessing feeding in infants under 6 months. Proficiency in these skills is critical for identifying infants and children who might be eligible for management. Hands-on practice using these methods will be provided in the field visits to outpatient care sites in Module Four.

Learning Objectives	Duration	Handouts and Exercises
1. Discuss Causes and Consequences of Undernutrition and Undernutrition Terminology	30 minutes	Handout 2.1 Causal Framework of Undernutrition Handout 2.2 Undernutrition Definitions, Indices, Indicators, and Indicator Cutoffs
2. Identify the Clinical Signs of Acute Malnutrition	15 minutes	Handout 2.3 Clinical Manifestations of Acute Malnutrition
3. Measure, Calculate, and Classify Acute Malnutrition	1 hour, 15 minutes (1¼ hours)	Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight, and Height Handout 2.5 Weight-for-Height/Length Tables for Field Use Exercise 2.1 Grades of Bilateral Pitting Oedema Exercise 2.2 Calculating WFH/WFL and Classifying Acute Malnutrition
4. Assess and Classify Nutritional Vulnerability in At-Risk Mothers and Infants Under 6 Months of Age	45 minutes	Handout 2.6 C-MAMI Tool Version 2.0
Wrap-Up and Module Evaluation	15 minutes	

Module Duration: 3 hours

Note: Depending on the needs of their audiences, 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.

Materials

- Blank cards
- Flip chart, markers
- Masking tape
- Cards with headings: Basic, Underlying, Immediate, and Consequences
- Sets of cards with undernutrition terms and sets of cards with matching definitions
- Calculators (*only needed if training covers WFH/WFL*)
- Salter scales (calibrated to zero ["0"])
- Electronic scale (e.g., UNISCALE) (calibrated to zero ["0"])
- Height/length boards (*only needed if training covers WFH/WFL*)
- Numbered and simple three-colour MUAC tapes
- Photos of children with marasmus, kwashiorkor, and marasmic kwashiorkor

Advance Preparation

- Room setup, materials noted above
- Review all participant handouts
- Arrangements should be made for participants to conduct anthropometric measurements of children in the context of ongoing screening or CMAM services
- Review relevant reference and further reading resources listed below.

Reference Resources

1. Emergency Nutrition Network (ENN). 2018. C-MAMI Tool Version 2.0. Available at <https://www.enonline.net/c-mami>.
2. Food and Nutrition Technical Assistance III Project (FANTA). 2018. *Anthropometry Pocket References for Children and Adolescents*. Available at: <https://www.fantaproject.org/tools/anthropometry-pocket-reference>.
3. Cashin, K. and Oot, L. 2018. *Guide to Anthropometry: A Practical Tool for Program Planners, Managers, and Implementers—Module 6: Protocols and Equipment*. Washington, DC: FANTA/FHI 360. (For reference material on weight and height equipment and on where to purchase equipment and available kits.) Available at: <https://www.fantaproject.org/sites/default/files/resources/MODULE-6-FANTA-Anthropometry-Guide-May2018.pdf>.
4. Food and Agriculture Organisation (FAO). 2008. Guidelines for Estimating the Month and Year of Birth of Young Children. Available at: <http://www.fao.org/docrep/pdf/011/aj984e/aj984e00.pdf>
5. World Health Organisation (WHO). 2006. WHO Child Growth Standards. Available at: <http://www.who.int/childgrowth/standards/>.

Further Reading Resources

1. Council of Research & Technical Advice on Acute Malnutrition (CORTASAM). 2018. *A Research Agenda for Acute Malnutrition*. Available at:

https://static1.squarespace.com/static/58da81cdd1758e39ca705526/t/5a5cbfcdf9619a9a191c6f34/1516027854696/NoWastedLives_Research_Agenda_2018.pdf.

2. Briend, A.; Mwangome, M.K.; and Berkley, J.A. 2017. "Using Mid-Upper Arm Circumference to Detect High-Risk Malnourished Patients in Need of Treatment." Preedy, V.R. and Patel, V.B. (eds.). *Handbook of Famine, Starvation, and Nutrient Deprivation*. DOI 10.1007/978-3-319-40007-5_11-1.
3. Lelijveld, N. et al. 2017. *A Review of Methods to Detect Cases of Severely Malnourished Infants Less than 6 Months for Their Admission into Therapeutic Care*. Emergency Nutrition Network. Available at: <https://www.enonline.net/mamicasedetectionreview>.
4. Tang, A.M. 2016. *Determining a Global Mid-Upper Arm Circumference Cutoff to Assess Malnutrition in Pregnant Women*. Washington, DC: FHI 360/FANTA. Available at: <https://www.fantaproject.org/sites/default/files/resources/FANTA-MUAC-cutoffs-pregnant-women-June2016.pdf>.
5. Blackwell, N. et al. 2015. "Mothers Understand and Can Do It (MUAC): A Comparison of Mothers and Community Health Workers Determining Mid-Upper Arm Circumference in 103 Children Aged from 6 Months to 5 Years." *Archives of Public Health*. Available at: <https://archpublichealth.biomedcentral.com/articles/10.1186/s13690-015-0074-z>.
6. WHO and UNICEF. 2009. *WHO Child Growth Standards and the Identification of SAM in Infants and Children: A Joint Statement*. Available at: <http://www.who.int/nutrition/publications/severemalnutrition/9789241598163/en/>.
7. UNICEF. *Nutrition in Emergencies*. Available at: <https://www.unicef.org/nutrition/training/list.html>.
8. WHO Department of Health and Development. 2002. *Training Course on the Management of Severe Malnutrition*. Geneva: WHO. Module 2.
9. WHO. 1983. *Measuring Change in Nutritional Status*. Geneva: WHO.
10. WHO. 2000. *Management of Nutrition in Major Emergencies*. Geneva: WHO.
11. Young, H. and Jaspars, S. 2006. *The Meaning and Measurement of Acute Malnutrition in Emergencies: A Primer for Decision-Makers*. Overseas Development Institute (ODI), Humanitarian Practice Network Paper No. 56, November.

Module 2 Learning Objective 1: Discuss Causes and Consequences of Undernutrition and Undernutrition Terminology

TRAINER: Become familiar with **Handout 2.1** Causal Framework of Undernutrition and **Handout 2.2** Undernutrition Definitions, Indices, Indicators, and Indicator Cutoffs.

BRAINSTORM: CAUSES OF MALNUTRITION. Give each participant two blank cards and ask them to think about what the causes of child undernutrition are and to write one cause on each card. Ask participants to post their cards and share their ideas.

Using cards marked “Immediate,” “Underlying” and “Basic,” have participants work together to group the causes by category and to place under the correspondingly labelled card.

- Immediate: e.g., food intake, illness
- Underlying: e.g., food insecurity, inadequate feeding and care practices, poor sanitation/water and inadequate health services
- Basic: e.g., political, cultural, religious, economic and social systems including women’s status

Direct participants to **Handout 2.1. Causal Framework of Undernutrition** and ask participants if they can name some specific causes of undernutrition.

Note to participants that these causes contribute to all forms of undernutrition, and their presence and interaction will determine how they manifest themselves in a child or a population over time.

ELICITATION: UNDERNUTRITION. If covered in **Module One**, ask participants to define undernutrition and the forms it can take. If not, present the following points:

Undernutrition is a consequence of a deficiency in nutrients in the body and can take the form of:

- Acute malnutrition (bilateral pitting oedema or wasting)
- Stunting
- Underweight
- Micronutrient deficiencies

Note to participants that malnutrition comprises overnutrition (e.g., overweight and obesity) and undernutrition, but the term malnutrition is most often utilized for forms of undernutrition (e.g., acute malnutrition).

Ask participants to name consequences of undernutrition (e.g., increased risk of illness, increased risk of morbidity and mortality due to weakened ability to fight illness, as well as poor growth and cognitive development).

PARTICIPATORY LECTURE: ACUTE MALNUTRITION. Ask participants if they can identify the five methods commonly used to assess the nutritional status of children (if participants have no nutrition background, simply deliver the information in lecture): 1) bilateral pitting oedema; 2) MUAC; 3) WFH/WFL; 4) height-for-age (HFA)/length-for-age (LFA); 5) weight-for-age (WFA). Remind participants that these training modules focus on acute malnutrition, and nutrition vulnerability in at-risk mothers and infants under 6 months of age. Ask participants which assessment methods (above) assess acute malnutrition.

- Define acute malnutrition and the cutoffs for SAM and MAM.

- **Acute malnutrition** is caused by inadequate food consumption and/or illness resulting in bilateral pitting oedema or sudden weight loss. It is defined by the presence of **bilateral pitting oedema** or **wasting** (low MUAC or WFH/WFL).
- **Acute malnutrition** comprises both SAM and MAM and can have the following indicators (with cutoffs for children age 6–59 months):

	Bilateral pitting oedema	MUAC	WFH/WFL z-score
SAM:	Present	< 115 mm	< -3
MAM:	Not present	≥ 115 mm and < 125 mm	≥ -3 and < -2

- Further explain that MUAC is a better predictor of mortality in children under 5 than WFH z-score. It is also relatively easy to measure and can be done by mothers and other family members in the community.

BRAINSTORM: NUTRITION VULNERABILITY IN AT-RISK MOTHERS AND INFANTS UNDER 6 MONTHS OF AGE. Ask participants to identify indicators used to identify nutrition vulnerability in infants under 6 months and the limitations of the indicators. Complete the responses by explaining the following:

- There is growing evidence on the use of MUAC to identify nutrition vulnerability in infants under 6 months. However, classification cutoffs have not yet been established. It is recommended that MUAC data for infants under 6 months be collected to help build the evidence to inform case management.
- Recent evidence has shown that WFA can help identify underweight infants who are also at higher risk of mortality. WFA will therefore be used as a criteria for admission of nutritionally vulnerable infants under 6 months of age.
- In infants under 6 months of age, assessment of nutrition vulnerability is not limited to anthropometric indicators. Ability to feed, medical condition, and maternal mental, physical, and social circumstances are also of primary importance.
- The infant's well-being is determined by the mother's well-being; therefore, the mother and infant are considered as a "mother-infant pair."
- More information will be covered later in this module under **Objective 4: Assess and Classify Nutrition Vulnerability of At-Risk Mothers and Infants Under 6 Months of Age.**

PRACTICE: ACUTE MALNUTRITION AND NUTRITION VULNERABILITY DEFINITIONS. Have participants form pairs. Give each pair a set of matching cards: 6 with undernutrition terms and 6 with matching definitions (see below). Ask each pair to match the terms with the definitions. Discuss in plenary.

Refer participants to **Handout 2.2 Undernutrition Definitions, Indices, Indicators and Indicator Cutoffs** for later reading and reference.

Match term with correct definition (answer key)

Terms	Definitions
Nutrition vulnerability in at-risk mothers and infants under 6 months	• Bilateral pitting oedema +/++/+++ • WFL z-score < -2 (low WFL) • WFA z-score < -2 (low WFA) • MUAC (cutoff TBD) • Inadequate weight gain or growth faltering • Ability to feed effectively • Medical condition of the infant (see details in C-MAMI Tool Version 2.0) • Mother's or caregiver's mental, nutrition, health and social circumstances
Acute malnutrition in children 6–59 months	• Bilateral pitting oedema • MUAC < 125 mm • Or WFH/WFL z-score < -2 (low WFH or WFL)
Moderate acute malnutrition (MAM) in children 6–59 months	• MUAC < 125 mm and ≥ 115 mm • Or WFH/WFL z-score < -2 and ≥ -3

Severe acute malnutrition (SAM)

In children 6–59 months	• Bilateral pitting oedema +/++/+++ • MUAC < 115mm • Or WFH/WFL z-score < -3
Clinical manifestations of SAM	• Marasmus (severe wasting) • Kwashiorkor (bilateral pitting oedema or swelling of nutritional origin) • Marasmic kwashiorkor (both bilateral pitting oedema and severe wasting)
Bilateral pitting oedema	• A sign of SAM • Also called kwashiorkor, nutritional oedema, or oedematous malnutrition • An abnormal infiltration and excess accumulation of serous fluid in connective tissue or in a serous cavity • Verified when thumb pressure applied on top of both feet for three seconds leaves a pit (indentation) in both feet after the thumb is lifted
Severe wasting	• A sign of SAM • MUAC < 115mm in children 6–59 months • Or WFH/WFL z-score < -3 A child with severe wasting has a high risk of death

Module 2 Learning Objective 2: Identify the Clinical Signs of Acute Malnutrition

TRAINER: Become familiar with **Handout 2.3** Clinical Manifestations of Acute Malnutrition.

BRAINSTORM AND WORKING GROUPS: CLINICAL MANIFESTATIONS OF ACUTE MALNUTRITION. In plenary, ask participants if they can name the three clinical manifestations of acute malnutrition:

- Marasmus (severe wasting)
- Kwashiorkor (bilateral pitting oedema)
- Marasmic kwashiorkor (severe wasting and bilateral pitting oedema)

Divide participants into working groups and ask them to name the characteristics of clinical manifestations of acute malnutrition: marasmus, kwashiorkor and marasmic kwashiorkor. Have one group present their answers and the other groups add additional points. Fill in any gaps.

Refer participants to **Handout 2.3 Clinical Manifestations of Acute Malnutrition** and review the classifications together. Invite and answer any questions.

PRACTICE: CLINICAL MANIFESTATIONS. Show pictures of children with marasmus, kwashiorkor and marasmic kwashiorkor and ask participants to classify them by clinical manifestation. Answer any questions.

Module 2 Learning Objective 3: Measure, Calculate, and Classify Acute Malnutrition

TRAINER: Become familiar with **Handout 2.4** Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height and **Handout 2.5** Weight-for-Height/Length Tables for Field Use.

PARTICIPATORY LECTURE: ASSESSING AGE. Ask participants if they know when estimation of a child's age is important. Note that age is relevant because the cases of infants under 6 months and children 6–59 months are managed differently. In cases where the age of the child cannot be verified through a child health card (CHC) or immunisation card, methods of estimating age include:

- Estimating the month and year of birth with the help of a local events calendar.
- Recall of the mother/caregiver which is easier to estimate in infants and younger children.
- For older children, age may be estimated based on height. The standard international proxy for children 59 months is 110 cm.

PARTICIPATORY LECTURE: BILATERAL PITTING OEDEMA. Describe how bilateral pitting is assessed (see **Handout 2.4**), noting that it is important that both feet are tested. If it is neither bilateral nor pitting, the oedema is not of nutrition origin. Describe the three grades of bilateral pitting oedema. Discuss how to assess bilateral pitting oedema grades ++ and +++. Note that participants will have the opportunity to assess bilateral pitting oedema in field site visits. Underline the importance of a second opinion in cases where bilateral pitting oedema is present.

PRACTICE: RECOGNISING BILATERAL PITTING OEDEMA. Refer participants to **Exercise 2.1 Grades of Bilateral Pitting Oedema**. Have the participants work in pairs to look at the photos and identify the severity of the bilateral pitting oedema. Review answers together.

Exercise 2.1 Grades of Bilateral Pitting Oedema (with answers)

PHOTO 1

Bilateral pitting oedema +

This child has bilateral pitting oedema in both feet. This is grade + (mild). But the child might have grade ++ or +++, so the legs and face also should be checked.



PHOTO 2 <u>Bilateral pitting oedema ++</u> This child's feet, lower legs, hands and lower arms are swollen. This is grade ++ (moderate).	
PHOTO 3 <u>Bilateral pitting oedema +++</u> This child has generalised bilateral pitting oedema, including feet, legs, arms, hands and face. This is grade +++ (severe).	

DEMONSTRATION: USING MUAC TAPE. Refer participants to **Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height/Length**. Ask how many participants have used a MUAC tape. Pass out MUAC tapes to participants and review briefly the cutoffs for SAM and MAM and how to find the measures on the tape. Demonstrate how to use MUAC tapes, outlining the process described in **Handout 2.4, Section 3**. Explain the meaning of the colours on the MUAC – red (SAM), yellow (MAM) and green (normal nutritional status). Ask participants to practice on each other.

PARTICIPATORY LECTURE: MEASURING WEIGHT AND HEIGHT/LENGTH. Show participants the Salter scale and the United Nations Children's Fund (UNICEF) UNISCALE, noting that they will encounter these scales in the field and have the opportunity to practice. For the Salter scale, outline the considerations in **Handout 2.4, Section 4**. For the UNISCALE, briefly outline how the child can be weighed in the mother/caregiver's arms.

PARTICIPATORY LECTURE: MEASURING HEIGHT/LENGTH. (Note: In cases where bilateral pitting oedema and MUAC are used for admission criteria, adapt the training to reflect the national guidelines.) Show participants the height board and note that length is measured for children under two or with a height below 87 cm, while height is measured for children over two or with a height above 87

cm. Describe the procedure outlined in **Handout 2.4, Section 5**. Note that in the case of children over two who are unable to stand, the measure will be taken lying down. In this case an adjustment downward of 0.7 cm is made to the measurement.

PARTICIPATORY LECTURE: CALCULATING WFH/WFL Z-SCORE. Refer participants to **Handout 2.5 Weight-for-Height/Length Tables for Field Use** and ask participants if they are familiar with the tables. If not, carefully review the WFH/WFL tables with them.

Demonstrate step-by-step on a flip chart the process of how to determine WFH/WFL z-score:

1. Determine the age of the child in order to decide whether to use the length table or the height table. Remind participants that if a child over the age of 2 (or over 87 cm) must be measured lying down for whatever reason, subtract 0.5 cm from the measurement.
2. Find the child's height in the height column if using the height table or child's length in length column if using the length table. Note that length and height measurements ending on one decimal are rounded up or down:
 - 0.1, 0.2, 0.3, 0.4 are rounded down to 0.0 cm
 - 0.5, 0.6, 0.7 0.8, 0.9 are rounded up to 1.0 cm
3. Looking at the right side of the chart for a girl or the left side of the chart for a boy, find the median weight for a child of that height or length. Determine whether the weight of the child is above or below -1, -2, -3 or -4 standard deviations (SDs).
4. Calculate the exact z-score by subtracting the median weight from the child's weight and dividing by the SD (in kg).

$$\frac{(\text{child's weight}) - (\text{standard child's weight})}{(\text{one SD})} = \text{z-score}$$

PRACTICE: CALCULATING WFH/WFL Z-SCORE. Refer participants to **Exercise 2.2 Calculating WFH/WFL and Classifying Acute Malnutrition**. Work in plenary to calculate the WFH/WFL z-score for child 1 and 2 in the exercise. Answer any questions, then ask participants to work in pairs to calculate the WFH/WFL z-score for child 3–10. Ask volunteer pairs to read their answers aloud. Answer further questions.

Exercise 2.2 Calculating WFH/WFL and Classifying Acute Malnutrition

PART A. WFH/WFL Z-Score							
Child Name	Sex	Age (in years unless noted)	Bilateral Pitting Oedema	MUAC (mm or colour)	Height (cm)	Weight (kg)	WFH/WFL Z-Score
Child 1	F	3		Green	98.2	12.5	< -1 and > -2
Child 2	M	5		123	110.0	14.8	< -2 and > -3
Child 3	M	5	++	Yellow	102.2	13.5	< -2 and > -3
Child 4	F	4		110	91.1	9.3	< -3
Child 5	M	9 months		125	69.9 (Length)	6.7	< -2 and > -3

Child 6	F	4	+++	Yellow	105.2	18.0	> median
Child 7	F	8 months	+	105	68.2 (Length)	5.0	< -3
Child 8	M	1		Red	84.3 (Length)	8.9	= -3
Child 9	F	2		109	97.2	11.0	< -2 and > -3
Child 10	M	1.5	+	Green	89.7	12.9	= median

PRACTICE: DETERMINING CHILD'S NUTRITIONAL STATUS. Refer participants back to **Exercise 2.2 Calculating WFH/WFL and Classifying Acute Malnutrition**. Still working in pairs, ask them to use the information on the presence of bilateral pitting oedema and MUAC scores to determine whether the child has SAM or MAM or is normal. Remind participants to use all the information on the sheet to make their determinations. Note to participants that:

- If a child has bilateral pitting oedema, it is still useful to measure MUAC or WFH/WFL to check for marasmic kwashiorkor.
- Bilateral pitting oedema could increase the child's WFH/WFL and mask wasting or other warning signs; however a child with bilateral pitting oedema is automatically classified as having SAM.
- In countries that use only bilateral pitting oedema and MUAC as entry criteria, information on height and weight should be adjusted to reflect the national guidelines.

Ask for volunteer pairs to read their answers aloud and then discuss and summarize in plenary. Ask participants what they would record for Child 7's admission criterion (this child has marasmic kwashiorkor). Refer to answer sheet and fill in gaps.

Exercise 2.2 Calculating WFH/WFL and Classifying Acute Malnutrition (with answers)

Part B. Bilateral Pitting Oedema and MUAC				
Child Name	Age (in years unless noted)	Bilateral Pitting Oedema	MUAC (mm or colour)	Classification
Child 1	3		Green	OK
Child 2	5		123	Moderate
Child 3	5	++	Yellow	Severe (bilateral pitting oedema)
Child 4	4		115	Moderate
Child 5	9 months		125	Moderate
Child 6	4	+++	Yellow	Severe (bilateral pitting oedema)
Child 7	8 months	+	105	Severe (marasmic kwashiorkor)
Child 8	1		Red	Severe (MUAC)
Child 9	2		114	Severe (MUAC)
Child 10	1.5	+	Green	Severe (bilateral pitting oedema)

PART C. Bilateral Pitting Oedema, MUAC, and WFH/WFL Z-Score								
Child Name	Sex	Age (in years unless noted)	Bilateral Pitting Oedema	MUAC (mm or colour)	Height (cm)	Weight (kg)	WFH Z-Score	Classification
Child 1	F	3		Green	98.2	12.5	< -1 and > -2	Moderate
Child 2	M	5		123	110.0	14.8	< -2 and > -3	Moderate
Child 3	M	5	++	Yellow	102.2	13.5	< -2 and > -3	Severe (bilateral pitting oedema)
Child 4	F	4		115	91.1	9.3	< -3	Severe (WFH)
Child 5	M	9 months		125	69.9	6.7	< -2 and > -3	Moderate
Child 6	F	4	+++	Yellow	105.2	18	> median	Severe (bilateral pitting oedema)
Child 7	F	8 months	+	105	68.2	5.0	< -3	Severe (marasmic kwashiorkor)
Child 8	M	1		Red	84.3	8.9	= -3 z	Severe (MUAC)
Child 9	F	2		114	97.2	11	< -2 and > -3	Severe (MUAC)
Child 10	M	1.5	+	Green	89.7	12.9	= median	Severe (bilateral pitting oedema)

Module 2 Learning Objective 4: Assess and Classify Nutritional Vulnerability in At-Risk Mothers and Infants Under 6 Months of Age

TRAINER: Become familiar with **Handout 2.6** C-MAMI Tool Version 2.0.

PARTICIPATORY LECTURE: ASSESS AND CLASSIFY NUTRITION VULNERABILITY OF AT-RISK MOTHERS AND INFANTS UNDER 6 MONTHS OF AGE (MOTHER-INFANT PAIR). Using the text in **Handout 2.6** C-MAMI Tool Version 2.0 as a reference, review the steps for assessing infants under 6 months of age and their mothers. Highlight the following areas:

- **Triage** the infant to check for general danger signs or signs of severe disease. Explain that triaging should follow the assessment protocols for integrated management of childhood illness (IMCI) and actions should be taken according to IMCI or the national guidelines. For mothers: Check for severe depression, anxiety, and/or distress.
- **Feeding assessment** for the breastfed infant—Identify breastfeeding problems (attachment, suckling, frequency of breastfeeds, and giving water and/or other liquids/foods) and abnormalities. For mothers: Identify any breast conditions and perception of not having enough breast milk.
- For the non-breastfed infant-mother/caregiver—Determine the infant's birth history, whether the mother is the primary caregiver, whether the infant was ever breastfed, the infant's access to breast-milk substitute and quantity consumed, and the possibility of wet nursing.
- **Clinical assessment** of the following in the infant—Any jaundice, severe pallor/anaemia, diarrhoea, vomiting, dehydration, and chest in-drawing signs; any possible underlying conditions such as HIV or TB; pre-term or low birth weight; thrush; and multiple delivery. For mothers: Assess for severe anaemia.
- **Anthropometric assessment** will involve WFL and WFA, review of the child weight and growth chart, and assessment of bilateral pitting oedema and any other complications. Remind participants that there is growing evidence on the use of MUAC in infants under 6 months of age. However, cutoff points are yet to be established; therefore it is important to collect data on MUAC to generate evidence in this area. For mothers: Assess MUAC.
- **Maternal mental health assessment**—Check for signs and symptoms of depression, anxiety, and distress. Additionally, assess the food security situation and the mother's economic situation.

Ask the participants to form pairs and review the **Handout 2.6: C-MAMI Tool Version 2.0—Assessment for Nutritional Vulnerability in At-risk Mothers and Infants under 6 Months**. Answer any questions that arise.

Module 2 Wrap-Up and Module Evaluation

Suggested Method: Review the learning objectives and complete the evaluation form.

- Review the learning objectives of the module. In this module you have:
 1. Discussed causes and consequences of undernutrition, as well as undernutrition terminology
 2. Identified the clinical signs of acute malnutrition
 3. Measured, calculated and classified acute malnutrition
 4. Assessed and classified nutrition vulnerability in at-risk mothers and infants under 6 months of age
- Place the following questions in a basket. Ask volunteers to pick a question and answer it. Discuss answers.
 1. What are some basic causes of undernutrition?
 2. What kinds of actions are being taken in your community to address undernutrition?
 3. What is acute malnutrition? How is SAM defined?
 4. How do you measure bilateral pitting oedema?
 5. What does the red colour mean on a MUAC tape?
 6. What is nutrition vulnerability?
 7. How do we assess nutritional vulnerability in at-risk mothers and infants under 6 months of age?
- Let participants know that they will have an opportunity to assess for bilateral pitting oedema, use MUAC tapes, measure WFH/WFL, and assess feeding of infants under 6 months during field visits.
- Ask participants to complete the evaluation form.

MODULE THREE: COMMUNITY OUTREACH

Module Overview

This module explains why community outreach is an indispensable component of community-based management of acute malnutrition (CMAM). The module also explains why community outreach should be approached systematically and well in advance of actual CMAM start-up.

Community outreach is not a new concept within the health sector. It is important to emphasise that all efforts should be made to assess the existing health outreach systems and actors and that community outreach for CMAM should build upon and further strengthen these existing systems.

The suggested activities and methods explain what community outreach is, address what the barriers are to accessing CMAM-type services, and what preparations are needed to effectively reach communities with malnourished children. The module reviews the elements in and components of mobilising community outreach with the goal of maximising CMAM services, empowering communities, minimising the number of defaulters, and ultimately reducing deaths due to acute malnutrition.

The module provides participants with information, tools, and skills to plan their own CMAM community outreach activities and an opportunity to practice these skills in the field. During the field visit, participants will go through all the steps needed to develop a community outreach strategy and an action plan.

To strengthen infant and young child feeding (IYCF) practices in target communities and households, this training module should be complemented with the training course on **Integration of IYCF support into CMAM**, available at <https://www.enonline.net/integrationiycfintocmam>. This two-day training helps to build the knowledge and skills of health care providers and community health workers involved with CMAM service delivery in the following areas:

- Identifying gaps between actual and recommended IYCF practices in the CMAM communities
- Discussing the recommended IYCF practices with mothers and caregivers
- Supporting mothers and caregivers to optimally feed their infants and young children less than 2 years of age

Learning Objectives	Duration	Handouts and Exercises
1. Explain the Importance of Community Outreach to CMAM Outcomes	30 minutes	Handout 3.1 Principles of Community Outreach in the Context of CMAM Exercise 3.1 Barriers to Access Role-Play Exercise 3.2 Overcoming Obstacles to Community Participation in CMAM
1. Identify Key Elements of a Community Assessment	45 minutes	Handout 3.2 Community Assessments Handout 3.3 Community Assessment Steps and Methods
2. Identify Key Steps in Developing a CMAM Outreach Strategy	45 minutes	Handout 3.4 Community Outreach: From Assessment to Strategy Handout 3.5 Community Outreach Strategy Handout 3.6 Example: Selection of Candidates for

		House-to-House Case-Finding Exercise 3.3 Comparison of Case-Finding Models Exercise 3.4 Worksheet: Selection of Candidates for Community Outreach
3. Discuss Considerations for Developing and Using CMAM Messages	30 minutes	Handout 3.7 Developing Simple and Standardised CMAM Messages Handout 3.8 Reference: Handbill Messages Handout 3.9 Reference: Visual Communication Tools
4. Discuss Preparations for Community Mobilisation and Training	45 minutes	Handout 3.10 Key Actions in Community Mobilisation and Training Handout 3.11 Planning and Implementing a Mass Training Campaign for Mothers and Family Members
Wrap-Up and Module Evaluation	15 minutes	Handout 3.12 Elements and Sequencing of CMAM Community Outreach
Field Visit for Community Outreach	1 day	Interview guide developed and provided by trainer Handout 3.4 Community Outreach: From Assessment to Strategy Handout 3.8 Reference: Handbill Messages Handout 3.13 Team Checklist for Community Outreach Field Visit

Module Duration: Three and half hours (3½ hours) in classroom followed by one-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.

Materials

- Flip chart, markers
- Cards for **Exercise 3.1 Barriers to Access Role-Play**

Advance Preparation

- Room setup, materials noted above, flip charts, markers, masking tape
- The evening before the training or earlier, select six players to take part in a role-play and distribute role-play cards to the selected participants
- Review relevant reference resources and further reading resources listed below.

Reference Resources

1. Alliance for International Medical Action (ALIMA). 2016. *Mother-MUAC: Teaching Mothers to Screen for Malnutrition—Guidelines for Training Mothers*. Available at: <https://www.alima-ngo.org/uploads/b5cb311474e9a36f414a69bd64d39596.pdf>

2. Dessie, M. et al. 2015. *Community Engagement for CMAM*. Coverage Monitoring Network. Available at: <http://www.coverage-monitoring.org/wp-content/uploads/2015/07/Technical-brief-Community-Engagement-for-CMAM-20151.pdf>.
3. Kittle, B. 2013. *A Practical Guide to Conducting a Barrier Analysis*. New York, NY: Helen Keller International. Available at: https://pdf.usaid.gov/pdf_docs/PA00JMZW.pdf.
4. Emergency Nutrition Network (ENN). 2009. *Integration of IYCF Support into CMAM*. Available at: <https://www.enonline.net/integrationiycfintocmam>.
5. Valid International. 2006. *Community-based Therapeutic Care (CTC) A Field Manual*. Oxford: Valid International. Available at: <https://www.fantaproject.org/sites/default/files/resources/CTC-Field-Manual-Oct2006-508.pdf>.
6. Catholic Relief Services (CRS). 1999. *Rapid Rural Appraisal and Participatory Rural Appraisal: A Manual for CRS Field Workers and Partners*. Available at: <https://www.crs.org/sites/default/files/tools-research/rapid-rural-appraisal-and-participatory-rural-appraisal.pdf>.

Further Reading Resources

1. Alvarez Moran, J.L. et al. 2018. "Quality of Care for Treatment of Uncomplicated Severe Acute Malnutrition Delivered by Community Health Workers in a Rural Area of Mali." *Maternal & Child Nutrition*. Jan.:14(1). doi: 10.1111/mcn.12449. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28378463>.
2. Rogers, E. et al. 2018. "Cost-Effectiveness of the Treatment of Uncomplicated Severe Acute Malnutrition by Community Health Workers Compared to Treatment Provided at an Outpatient Facility in Rural Mali." *Human Resources for Health*. 16:12. Available at: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-018-0273-0>.
3. Franck, G.B. et al. "Mothers Screening for Malnutrition by Mid-Upper Arm Circumference Is Non-Inferior to Community Health Workers: Results from a Large-Scale Pragmatic Trial in Rural Niger." *Archives of Public Health: The Official Journal of the Belgian Public Health Association*. 2016. 74:38. Available at: <https://doi.org/10.1186/s13690-016-0149-5>.
4. Blackwell, N. et al. 2015. "Mothers Understand and Can Do It (Mid-Upper Arm Circumference [MUAC]): A Comparison of Mothers and Community Health Workers Determining Mid-Upper Arm Circumference in 103 Children Aged from 6 Months to 5 Years." *Archives of Public Health*. Available at: <https://archpublichealth.biomedcentral.com/articles/10.1186/s13690-015-0074-z>.
5. Puett, C.; Hauenstein Swan, S.; and Guerrero, S. 2013. *Access for All, Volume 2: What Factors Influence Access to Community-Based Treatment of Severe Acute Malnutrition?* (Coverage Monitoring Network, London, November 2013). Available at: https://www.actionagainsthunger.org/sites/default/files/publications/Access_For_All_Volume_2_11.2013.pdf.
6. Forsythe, V. et al. 2010. *Community Outreach for Community-Based Management of Acute Malnutrition in Sudan: A Review of Experiences and the Development of a Strategy*. Washington, DC: FHI 360: Food and Nutrition Technical Assistance Project (FANTA). Available at: https://www.fantaproject.org/sites/default/files/resources/Sudan_Community_Outreach_CMAM_Dec2010.pdf.

Module 3 Learning Objective 1: Explain the Importance of Community Outreach to CMAM Outcomes

TRAINER: Become familiar with **Handout 3.1 Principles of Community Outreach in the Context of CMAM**, **Exercise 3.1 Barriers to Access Role-Play**, and **Exercise 3.2 Overcoming Obstacles to Community Participation in CMAM**.

BUZZ GROUPS AND PARTICIPATORY LECTURE: WHAT IS COMMUNITY OUTREACH IN THE CONTEXT OF CMAM? If participants took part in **Module One**, ask them to form groups of 2-3 and quickly describe what they know about community outreach in the context of CMAM. Ask a few volunteers to briefly respond and fill in the gaps in the discussion with **Handout 3.1 Principles of Community Outreach in the Context of CMAM, Sections 1-3**. Make particular note of these key activities of community outreach in the context of CMAM: 1) community mobilisation, 2) active case-finding for early detection and referral, 3) home visits for follow-up of high-risk cases [i.e., those not thriving or responding, absentees, and defaulters], and 4) linking with other community services, programmes, and initiatives. Explain that this training module looks at how to most effectively establish these four characteristics through a four-step process.

Write the following four steps on a flip chart so that they can be referred to throughout the module.

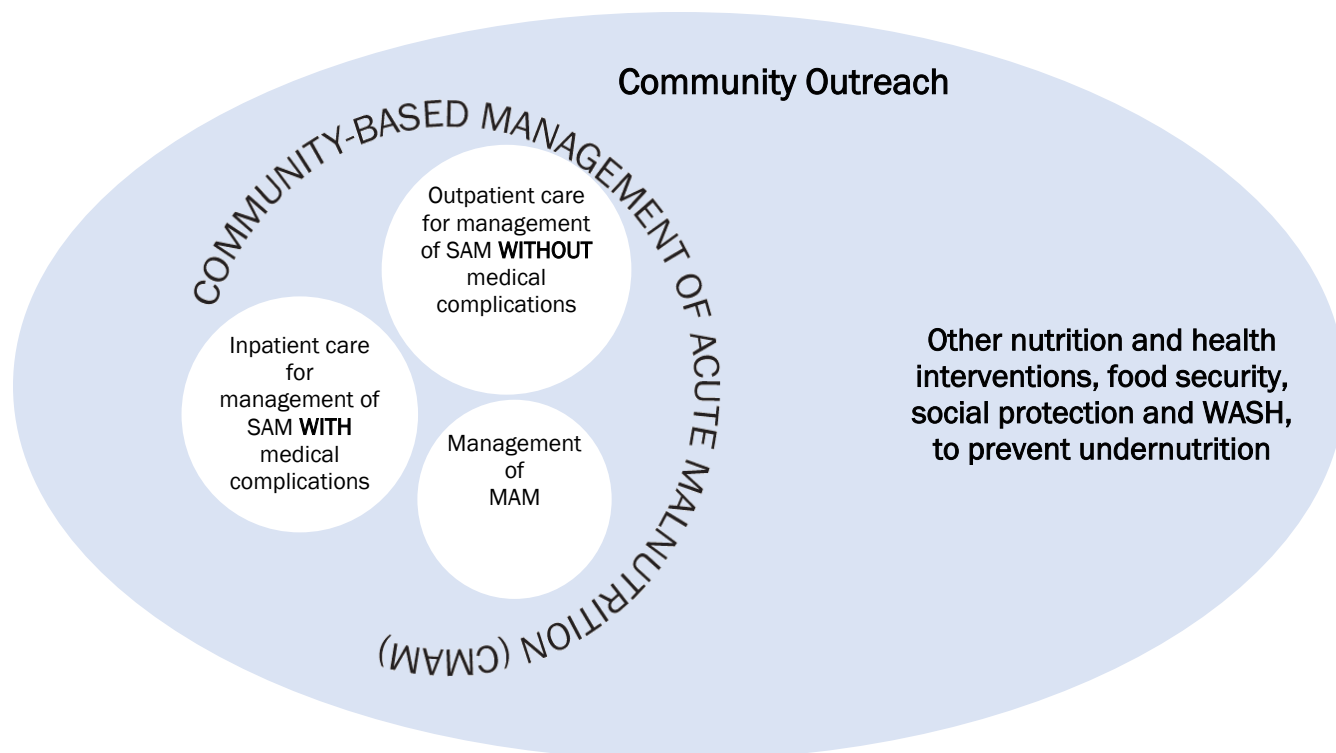
- Step One: Community Assessment
- Step Two: Formulation of Community Outreach Strategy
- Step Three: Development of Messages and Materials
- Step Four: Community Mobilisation and Training

GROUP DISCUSSION: THE POWER OF COMMUNITY OUTREACH. Draw **Figure 3.1**

(below) on the flip chart and review the components of CMAM. Ask participants why community outreach surrounds the other components.

Fill in gaps in the discussion, noting that community outreach feeds into and is necessary for the other components to function well. Experience with CMAM has demonstrated repeatedly that provision of outpatient care without community outreach will rarely result in high service or programme service access and uptake (or service coverage). Therefore, case-finding and referral at the community level are necessary to ensure that coverage reaches acceptable levels (i.e., the Sphere standards: 70% in urban and camp settings and >50% in rural settings) and that acute malnutrition is identified and presented early, which lead to good clinical outcomes and decreased strain on inpatient facilities.

Figure 1. Core Components of CMAM



BRAINSTORM AND GROUP DISCUSSION: OBSTACLES TO PARTICIPATION IN CMAM. Ask participants to think of obstacles faced in a community that might impede participation in CMAM. Write responses on the flip chart and fill in gaps:

- **Poor awareness** of acute malnutrition
- **Poor awareness** of CMAM service within the community being served
- **Community mobilisation has been overly broad**, resulting in too many ineligible cases arriving and being rejected
- **Referral and admission criteria are not aligned** (e.g., mid-upper arm circumference [MUAC] is used for community screenings but final admission at site is based on weight-for-height [WFH]), leading to rejection of referred individuals at the site and hurting the programme's reputation
- People might be aware that there is a new nutrition service, but **local medico-cultural traditions do not connect advanced wasting or swelling with undernutrition**, as awareness of traditional medicines might be stronger
- There might be **stigma in the community** that is associated with acute malnutrition
- The **influence of peers or family members** might serve as a disincentive
- Community mobilisation might have overlooked **important community gatekeepers or opinion-makers**
- **Other services at the primary health care (PHC) facility are poorly regarded** by the community (e.g., because medicines are not available, because hours are irregular, because staff are

overworked, because treatment requires long waits), and as a result, when CMAM is established at the PHC facility, it is viewed negatively by association

- The **location of outpatient care sites** might require an unreasonable amount of travel time for target communities or make the sites inaccessible due to barriers like seasonal flooding
- Participation is **interrupted by seasonal labour patterns** beyond the control of the service, such as temporary relocation of families from homes to more remote farms during the weeding or harvesting seasons

EXERCISE 3.1 BARRIERS TO ACCESS ROLE-PLAY. Confirm that the players have read the role-play cards (copy below) distributed in advance (see Advance Preparation). Explain that the role-play should unfold as a series of scenes between the mother and the other players. Spend five minutes with all the players to answer questions they may have and suggest ways to make their performance more realistic.

The audience (those not acting out the role-play) should not be present when you explain the roles to the players. They may, however, be asked to participate in the final scene, where they may collectively act as a crowd of curious onlookers and care-seekers at the outpatient care site.

After the role-play, help the participants to list the obstacles and analyse the scenario:

- Which of these barriers are likely to be an issue in their own community?
- What other factors hinder participation?
- What measures would help eliminate these barriers?

Community Mother: You are a mother of five children, living in a community that is a two-hour walk from the nearest government health post. Your 2-year-old daughter has been sick since her younger sister's birth six months ago. You have tried many local remedies but nothing seems to make her better. She is now very thin and has almost no energy. You are very worried. You have heard that there are people going house to house to measure children's arms, but you are not sure why. You are sceptical of these volunteers because some of the same people were appointed as "health messengers" last year and have a reputation for harassing people about building latrines. There are even rumours that some families in a nearby community were fined for not building latrines, and your husband (who is out) forbade you from allowing the messengers into the family compound. When a messenger arrives and asks to see your children, you have mixed feelings: You want to obey your husband, but you do not wish to anger the community chairman by refusing his emissaries. When the messenger assures you that s/he is not here to look at your latrine, you reluctantly agree to admit him/her. At first, you are not planning to show him/her your sick child.

Nutrition Volunteer (male or female): You are trained to perform MUAC measurements on children by going house to house. Your work area covers four communities, including your own. You have limited formal schooling, but you are clever and are respected by people in your community who know you, even though you are young. While you are fairly confident of your ability to measure MUAC, you have not yet attended an outpatient care day because of the distance to the health post, so you are uncertain about what happens to the children you refer there. In this encounter, you are starting at a disadvantage: several months ago, you asked mothers/caregivers from your communities to gather their children in one spot for vaccination, but the vaccines did not arrive on time, leaving the mothers/caregivers waiting. You had to make a second appointment, and some mothers/caregivers are still resentful about having wasted their morning. This mother seems a little anxious, but you sense she might be persuaded to let you examine her children. After she finally allows you into her compound, you cannot answer all her questions. You therefore try to emphasise two important points to her and her husband (who has returned): 1) you are trying to save the lives of the sickest children, and 2) there is a new treatment for the most malnourished cases that can be given at home so that mothers/caregivers no longer have to spend weeks in the town hospital with their children.

First Neighbour (in community): You are spending the morning in the compound of your friend (community mother) when she is visited by the health messenger. You recognise him/her as the person who wasted your time on immunisation day and are openly antagonistic to him/her. Why should your friend waste her time with his/her new services? And aren't his colleagues causing people to be fined over latrines? When your friend finally shows her sick child to him/her, you recognise this as a problem created not by undernutrition but by "spoiled" breast milk. You counsel your friend to get roots from a community healer, boil them and bathe the child with the water. However, your friend eventually decides to accept referral to outpatient care, so you try to help by watching her other children for the day and cooking for her husband.

Husband: You come home to find your wife talking with the health messenger and are initially annoyed that she has let him/her into the compound. However, when it becomes clear he/she is not trying to make you build a latrine, you relax. You have to choose between the traditional remedy suggested by your neighbour and the messenger's advice to let your wife go to the health post where your child will receive a new treatment that can be brought home. You would not mind your wife's going to the health post, but in the past, you have seen that children in this condition have been moved from the health post to the district hospital with their mothers/caregivers where they spent weeks under care. You love your daughter and want her to recover, but you are also afraid of how this would affect your family. How would your family eat? Furthermore, it is the weeding season, and the time your wife spends at the health post—away from home—will reduce your harvest. You want assurances that she will be able to return from the health post promptly.

Second Neighbour (returning on the road): You are on your way back from the outpatient care site and are very annoyed. Yesterday you were called to attend a screening in your community. You waited all morning in the sun while children were measured. Your child was selected to attend outpatient care. But today, after walking over an hour to the health post, the outpatient care staff re-measured your child and refused to admit him. You and several other mothers/caregivers waited to speak to the head clinician because you thought the measurers were cheating you. After all, you were referred from the community with a note! However, the programme seemed to be taking all day, the staff were overworked and short-tempered, and the crowding was stressful. Therefore, you left without presenting your grievance. Why, you wonder, are people forced to waste their time like this during the harvest? As you walk home, you meet a woman from a neighbouring community (community mother) who says she was referred to the same programme. You tell her your story and bitterly advise her not to waste her time.

Outpatient Care Nurse: You have been busy all morning examining children as part of these new services. You are glad there is finally an effective treatment for malnourished children, but things cannot go on as they are in the same disorganised fashion. People are everywhere in the clinic, asking for food and assistance. This is not a general store! You are a clinician, but increasingly you are being asked to manage a relief operation. The stress has been making you irritable, especially with mothers/caregivers who have been deliberately returning to the screening queue after being rejected just minutes earlier. Now here comes a mother (community mother) trying to get into the outpatient care line without even going to the screening queue first! The irritation is too much for you. You angrily tell her to go away. Now the crowd is getting involved. As you turn your attention back to the child in front of you, the last thing you see is the mother surrounded by people loudly offering contradictory advice.

WORKING GROUPS: OVERCOMING OBSTACLES THROUGH COMMUNITY OUTREACH. Divide participants into working groups and refer them to **Exercise 3.2 Overcoming Obstacles to Community Participation in CMAM**. Point out that it contains a summary of some of the obstacles just discussed. Ask the working groups to think about who should be involved in planning for community outreach to best overcome these obstacles and what other steps might be needed. Discuss.

Direct participants to **Handout 3.1** for future reading and reference.

Module 3 Learning Objective 2: Identify Key Elements of a Community Assessment

TRAINER: Become familiar with **Handout 3.2** Community Assessments and **Handout 3.3** Community Assessment Steps and Methods.

GROUP DISCUSSION: THE ROLE OF THE COMMUNITY ASSESSMENT. Note for participants that this is the first step in preparation for CMAM community outreach. In plenary, ask participants why a community assessment is important, what kind of information can be gathered, and how it can be used. Fill in gaps in the discussion as necessary, noting that:

- The assessment is an opportunity to consider community participation and service access and uptake in CMAM in a systematic way and in a specific implementation context.
- To best overcome barriers and reinforce existing boosters to participation, the community assessment can shed light on how the community is organised, how undernutrition is viewed, how the new service is likely to be received, and how the community can best support the outreach component.
- The community assessment should be used as an opportunity to identify and acknowledge the limits of staff knowledge of the local community.

PARTICIPATORY LECTURE: WHAT COMMUNITY ASSESSMENTS CONSIST OF. Review the content on **Handout 3.2 Community Assessments, Section B** making note of the two key questions that community assessments must answer: 1) what is likely to affect demand for CMAM locally, and 2) how can community outreach be organised (supply) to meet and increase this demand most effectively?

WORKING GROUPS: METHODS OF COMMUNITY ASSESSMENT. Divide participants into working groups of four or five. Refer them to **Handout 3.2 Section B**. Ask them to think of their own communities and the most relevant factors affecting demand there. Reminding them that the assessment is an opportunity to identify and acknowledge the limits of staff knowledge of the local community, ask them who in the community they should approach to learn more about factors affecting demand. Have one group briefly report back in plenary.

Ask the same groups to think through the supply side and try to answer the questions in **Handout 3.2, Section C**. As with the demand side, ask them who in the community must be involved to help answer these questions. Have another group briefly report back in plenary.

Refer participants to **Handout 3.3 Community Assessment Steps and Methods**. Review in plenary and discuss any differences between their responses to the assessment steps and those involved on the handout.

PARTICIPATORY LECTURE: METHODS OF COMMUNITY ASSESSMENT. Referring back to **Handout 3.3**, note for participants that:

- Assessment methods vary but are qualitative and in the spirit of Rapid Rural Appraisal (RRA) or Participatory Rural Appraisal (PRA). The RRA and PRA approaches should aim to incorporate the knowledge and opinions of the community members, including mothers and caregivers, in the planning and management of CMAM services including community outreach.

>>Step One: Community Assessment

Step Two: Formulation of Community Outreach Strategy

Step Three: Development of Messages and Materials

Step Four: Community Mobilisation and Training

- Access to relevant secondary information should be assessed and information reviewed.
- The objective is to quickly generate usable information, not to produce a lengthy report.
- The steps and methods in **Handout 3.3** are a recommended minimum that can be built upon over time or if additional resources are available.

Highlight the importance of gathering information on breastfeeding practices to support the management of at-risk mothers and infants under 6 months who are nutritionally vulnerable.

Module 3 Learning Objective 3: Identify Key Steps in Developing a CMAM Outreach Strategy

TRAINER: Become familiar with **Handout 3.4** Community Outreach: From Assessment to Strategy, **Handout 3.5** Community Outreach Strategy, **Handout 3.6** Example: Selecting Candidates for House-to-House Case-Finding, **Exercise 3.3** Comparison of Case-Finding Models, and **Exercise 3.4 Worksheet:** Selecting Candidates for Community Outreach.

BRAINSTORM: INSIGHTS FROM COMMUNITY ASSESSMENTS.

Note for participants that formulation of an outreach strategy is the second step in preparation for CMAM community outreach. Ask participants to summarize some of the insights obtained from a community assessment that could help to form the basis of a community outreach strategy. Answers may include:

- The objectives and nature of the CMAM service: short term or long term; nongovernmental organisation (NGO)-assisted or Ministry of Health (MOH)-run; integrated or temporary/stand-alone
- Opportunities and barriers influencing participation (demand) in the community
- Resources and capacities influencing the availability of services (supply), particularly with regard to community outreach.
- Opinion leaders and key influencers including traditional healers, traditional birth attendants, leaders, religious leaders, teachers, grandmothers, fathers, hairdressers, shop owners, and pharmacists
- Opportunities for integration with other sector initiatives including maternal and child health; reproductive health; gender-based violence and child protection; and water, sanitation and hygiene (WASH)

Step One: Community Assessment

>>Step Two: Formulation of Community Outreach Strategy

Step Three: Development of Messages and Materials

Step Four: Community Mobilisation and Training

WORKING GROUPS: FROM COMMUNITY ASSESSMENT TO STRATEGY. Divide participants into four working groups. Tell them you will explain four different key findings from a community assessment in Ethiopia and want each group to discuss one finding and how the community outreach strategy can address it:

1. Locally, a variety of causes are thought to underlie swelling and wasting, and not all are food-related. Presumed causes include breastfeeding while pregnant, exposure to bright sunlight, malevolent spirits, and the displeasure of ancestors.
2. Local churches are often the first resort families with sick children turn to; they borrow funds for treatment.
3. All parts of the community are uncertain about the relationship between proposed outpatient care of SAM and pre-existing anthropometric screening for the targeted general ration.
4. A cadre of unpaid community health workers (CHWs) are already conducting house-to-house health education regularly, but only literate workers receive regular training.

Ask each working group to report back on their findings and discuss together. Refer participants to Handout 3.4 Community Outreach: From Assessment to Strategy and compare the “implications for strategy” found in the second column with the working groups’ responses. Discuss and fill in any gaps by explaining that the community outreach strategy will be determined by several factors including:

- What the needs are—as identified by the community assessment
- What case-finding model will be adopted
- How participants will be trained (what tools, what scope) in case-finding and sensitisation
- Whether community outreach workers will be remunerated or motivated by other means
- What materials and tools will be used and how they will be supplied (e.g., MUAC tapes, referral slips)
- What communication channels will be supported between communities and health facilities
- What linkages may exist between community outreach for CMAM services and other nutrition-specific and nutrition-sensitive community mobilisation activities (e.g., cooking demonstrations, care groups, mother-to-mother support groups, growth monitoring, PD Hearth, demonstration gardens, health promotion, hygiene promotion, village savings and loans)

PARTICIPATORY LECTURE AND BRAINSTORM: METHODS OF CASE-FINDING. Explain to participants that an important aspect of a community outreach strategy may be deciding how case-finding will be conducted. Define the three models found in **Handout 3.5 Community Outreach Strategy**:

- House-to-house case-finding
- Community case-finding
- Mother and family case-finding

Ask participants to describe some factors that would suggest which model (or sequence or combination) to use. Possible answers include: the degree of acute malnutrition in the community; community awareness of the signs of acute malnutrition; accessibility of homes and degree to which they are clustered; existing networks of CHWs and their workloads; time and resources available for training and outreach; whether or not case-finding is envisioned as a permanent need or temporary measure.

PRACTICE: DETERMINING METHODS OF CASE-FINDING. With participants still in working groups, refer participants to **Exercise 3.3 Comparison of Case-Finding Models**. Taking the three models for case-finding in sequence, ask groups to discuss the categories and fill in the matrix. Remind them of some of the factors discussed above, and if necessary get them started by asking which of the models are appropriate for start-up and which for post-start-up. In discussing the responses, note that there are no 'right answers' for every situation. The most important lesson from this exercise is that many decisions are trade-offs that balance convenience for community members against convenience for the service providers.

PARTICIPATORY LECTURE: SELECTION OF CANDIDATES FOR HOUSE-TO-HOUSE CASE-FINDING. Explain to participants that once a decision has been made concerning the type of case-finding to employ, the team will need to see who can most easily undertake this work. In some settings, the options may be very limited and the choice obvious. Where there are several options available, it can be a useful process to consider systematically the strengths and weaknesses of each in order to arrive at the best compromise.

Ask participants to look at **Handout 3.6 Example: Selection of Candidates for House-to-House Case-Finding**. The example is from the Southern Nations, Nationalities, and People's Region (SNNPR) in Ethiopia. The matrix ranks the candidates for house-to-house case-finding with a simple three-point scale across each of the key attributes: X is the low (poor) end of the scale and XXX is the high (good) end. The conclusion drawn in this case was that although all three types of CHWs had attributes in their favour, only the community health promoter (CHP) could both perform the house-to-house visits and accept the additional workload.

Exercise 3.3 Comparison of Case-Finding Models (with answers)

Model	Suitable for	Strengths	Weaknesses
House-to-House Case-Finding	Both startup and post-startup Situations where going house-to-house is the most appropriate way to announce the new service Situations where house-to-house outreach workers (e.g., CHWs, volunteers) are readily available Situations where social fragmentation or other factors prevent households from gathering together for community case-finding	Can more easily find “hidden” cases kept at home due to stigma, misdiagnosis or other factors. Can increase the number of infants and children detected if it is done exhaustively	Requires a much larger number of trained volunteers Can be difficult to sustain over the long term Volunteers’ MUAC measurements might not be accurate without high quality-training If visits are too frequent, house-to-house case-finding can become an intrusion to the families
Community Case-Finding	Both startup and post-startup Situations where families are already bringing infants and children to centralised location for other services (e.g., immunisation, supplementary feeding services or programmes, screenings) Communities where distance between households makes it difficult to conduct house-to-house visits Situations where house-to-house volunteers cannot easily be recruited Situations where there is little likelihood of stigma or shame in publicly presenting a very malnourished child	Less effort for outreach workers than house-to-house case-finding Fewer screeners are needed than for house-to-house, allowing emphasis during training on securing reliable MUAC measurement from a smaller number of trainees	Gathering too many households in one location can create confusion and waste families’ time. Could reproduce existing patterns of access, catering to families who already are well served, while the marginalised stay home Screeners cannot come unannounced; people must be told when screening team will arrive, which requires advance planning and sticking to the plan
Mother and Family Case-Finding	Both startup and post-startup Situations where community health workers (CHWs) exist but have a high workload The approach can be combined with mass community trainings and campaigns. Situations where CHWs play an important role in training, monitoring, and supporting mothers and family members and in checking the mother’s diagnosis Situations where distances between households make it difficult for CHWs or volunteers to conduct regular house-to-house screening of children	Puts the mother at the centre of screening, therefore encourages early identification of nutritionally vulnerable infants and children who are acutely malnourished. More regular screening because the mother is always in contact with the child, and accuracy of MUAC measurement may increase with repeated use. If all mothers within the catchment area are trained, the approach can greatly improve the coverage of CMAM services.	It is labour-intensive at the start, which includes planning and implementing mass training campaigns for mothers and family members. It requires sourcing large quantities of MUAC tapes. Mothers’ MUAC measurements might not be accurate without quality training and routine follow up.

PRACTICE: SELECTING CANDIDATES FOR CASE-FINDING. Break participants into groups according to their districts and ask each group to fill in its own matrix using **Exercise 3.4 Worksheet: Selection of Candidates for Community Outreach**, based on local extension workers and volunteers. Ask them to list and consider the merits of at least three categories of candidates:

1. Health extension workers (HEWs) and volunteers (e.g., CHWs, community-based family planning distributors/educators, home-based care [HBC] volunteers, vitamin A distributors)
2. Other extension workers and volunteers (e.g., agricultural extension workers, social welfare officers, NGO project workers)
3. Important community figures (e.g. teacher, priest or catechist, secondary school leavers, elected leaders, cultural leaders, traditional healers)

PARTICIPATORY LECTURE: HOME VISITS AND FOLLOW-UP OF HIGH-RISK CASES. Note to participants that because follow-up home visits are required only for high-risk cases (i.e., those not thriving or responding, absentees, and defaulters), the majority of outpatient care cases, which are not high risk, can easily be neglected. However, it is important to make adequate provision for them.

As with arrangements for case-finding, plans for follow-up home visits should be made before the first outpatient care patients are received. Since the range of personnel available for follow-up home visits can vary from one outpatient care site to another, it might be impossible to make a “one-size-fits-all” arrangement. Instead, responsibilities might need to be worked out separately for each site.

Module 3 Learning Objective 4: Discuss Considerations for Developing and Using CMAM Messages

TRAINER: Refer back to **Exercise 3.1** Barriers to Access Role-Play and become familiar with **Handout 3.7** Developing Simple and Standardised CMAM Messages, **Handout 3.8** Reference: Handbill Messages, and **Handout 3.9** Reference: Visual Communication Tools.

GROUP DISCUSSION: THE NEED FOR STANDARD CMAM MESSAGES. Remind participants that the development of messages and materials is the third step in preparation for CMAM community outreach. In plenary, explain that the most important messages are simple, standardised messages describing the program itself. Ask participants to describe why this is important. Remind them of what they witnessed in **Exercise 3.1 Barriers to Access Role-Play**. Possible answers include:

- To clarify how the service is offered and to whom
- To ensure that the community is relying on accurate information and not rumours which can hurt community participation and service access and uptake
- To facilitate the spread of information through word of mouth

BRAINSTORM: DEVELOPING STANDARD CMAM MESSAGES. Ask participants to think through the key information (what? how? who? where? when?) that would need to be conveyed to make sure the community's understanding of the CMAM services is both accurate and complete. Write answers on a flip chart, filling in gaps with the typical content found in **Handout 3.7 Developing Simple and Standardised CMAM Messages, Section A**. Note for participants the importance of using the key messages as an opportunity to address concerns raised in the community assessment.

WORKING GROUPS: DEVELOPING AND USING HANDBILLS. Describe the process of creating a handbill from the standard CMAM messages (i.e. simplifying messages, translation into local language, back-translation, photocopying, disseminating, and tracking misconceptions once disseminated, reworking as necessary). Ask participants to form working groups of three or four and to think of different venues and audiences where the handbills could be used to spread accurate and complete information throughout the community. Also ask them to think of their own local circumstances and to try to think of how the handbill could be used to communicate through radio, public address systems, etc. Discuss and refer participants to **Handout 3.7 Section B** and **Handout 3.8 Reference: Handbill Messages**. Compare responses.

PARTICIPATORY LECTURE: USING VISUAL COMMUNICATION TOOLS. Refer participants to **Handout 3.9 Reference: Visual Communication Tools** and explain that visual communication tools such as posters, leaflets, and fliers can play an important role in reminding communities, families, mothers, and caregivers of what, where, and when services are available.

Step One: Community Assessment

Step Two: Formulation of Community Outreach Strategy

>>Step Three: Development of Messages and Materials

Step Four: Community Mobilisation and Training

Module 3 Learning Objective 5: Discuss Preparations for Community Mobilisation and Training

TRAINER: Become familiar with **Handout 3.10** Key Actions in Community Mobilisation and Training and **Handout 3.11** Planning and Implementing a Mass Training Campaign for Mothers and Family Members.

PARTICIPATORY LECTURE: PREPARING FOR COMMUNITY MOBILISATION AND TRAINING.

Refer participants to **Handout 3.10 Key Actions in Community Mobilisation and Training**, reminding participants that this is the fourth step in preparation for CMAM community outreach. Outline the four key actions in preparing for community mobilisation and training:

- Establish reliable communications between service providers, community, mothers, and families.
- Assist communities with selection of outreach workers where necessary.
- Train outreach workers (e.g., CHWs, volunteers) to perform case-finding.
- Train mothers and family members to regularly screen their children for acute malnutrition
- Engage civil society partners.

For each of the key actions, ask participants why the action is important using the content in column two ("Why?") of **Handout 3.10** as a guide for the discussion. Then describe the pointers in column three ("How?"). Answer any questions.

PARTICIPATORY LECTURE: PLANNING AND IMPLEMENTING A MASS TRAINING CAMPAIGN.

Refer participants to **Handout 3.11 Planning and Implementing a Mass Training Campaign for Mothers and Family Members**. Outline the six steps used to prepare for and implement mass training campaigns for mothers and family members:

- Determining the coverage area
- Determining human resources needed for a mass training campaign
- Determining the budget
- Determining what to prepare for the trainers
- Developing a training session
- Following up with the mothers

For each step, review the essential activities that should be undertaken. Use **Handout 3.11** as a guide for the discussion. Answer any questions.

WORKING GROUPS: USING MOBILISATION AND TRAINING TO INCORPORATE BEHAVIOUR CHANGE COMMUNICATION (BCC) IN CMAM SERVICES.

Explain to participants that through exploring the causal factors behind the prevalence of acute malnutrition, CMAM staff may be able to find ways to introduce or reinforce preventive messages into CMAM routines. Ask participants to form working groups of three or four and to discuss how efforts in community mobilisation and training can be expanded upon to: identify relevant behaviour change messages; access information, education and communication (IEC) and BCC materials; and create a mechanism for their dissemination.

Step One: Community Assessment

Step Two: Formulation of Community Outreach Strategy

Step Three: Development of Messages and Materials

>>Step Four: Community Mobilisation and Training

Examples include:

- Once CMAM is under way, CMAM health care providers should talk with outpatient care providers and outreach workers to learn what the major causal factors appear to be based on admissions to the outpatient care to date.
- The district health management team, implementing agencies operating in the area, and local health facilities are likely to have access to a range of BCC and IEC materials on various topics about factors contributing to SAM (e.g., complementary foods, exclusive breastfeeding [EBF], dietary variety).
- Outreach workers conducting community-level or house-to-house MUAC screenings might benefit from simple training in the management of diarrhoea in children so they can answer questions about this during their rounds. Or, outpatient care staff or volunteers could share information about family planning options to the mothers/caregivers gathered for CMAM.

Module 3 **Wrap-Up and Module Evaluation**

Suggested Method: Review of learning objectives and completion of evaluation form

- Review the learning objectives of the module. This module covered:
 1. The importance of community outreach to CMAM outcomes
 2. The obstacles and enablers of community participation in CMAM
 3. The areas of investigation that make up the community assessment
 4. The steps involved in moving from assessment to strategy
 5. Why it is important to simplify and standardise CMAM messages
 6. The main steps required to initiate active CMAM outreach
- Ask for any questions and feedback on the module.
- Refer participants to **Handout 3.12 Elements and Sequencing of CMAM Community Outreach**.
- Let participants know that they will have an opportunity to meet with community leaders, HEWs, volunteers, and community mothers/caregivers during the community outreach field visit.
- Ask participants to fill out the module evaluation form.

FIELD VISIT FOR COMMUNITY OUTREACH

The field visit is designed to allow participants to practice the steps needed to develop a community outreach strategy and an action plan. During the field visit, participants will interview one of the following four groups: community leaders; existing extension workers, CHWs and volunteers; younger community mothers/caregivers; older community mothers/caregivers including grandmothers. Participants then will consolidate findings from the interviews, create a handbill (messages to communicate) and begin devising a community outreach strategy and an action plan.

It can be difficult to practice realistic community outreach activities in an area that already has CMAM services. The visit should be done at a location that is not serviced by CMAM.

Preparations include meeting with community leaders to arrange for the group interviews, selecting community members for the group interviews, lining up translators, arranging transportation, and developing simple interview guides (lists of questions). Trainers might need to work through contacts in the community to make some of the arrangements.

The period allotted for this field visit is a fraction of the time needed to cover all aspects of community outreach. This particular site visit plan emphasises the community assessment, strategy and materials components.

These notes are a map of activities to be conducted during the visit. They are not meant to substitute for technical aids to qualitative research, such as focus group manuals, or for the trainer's knowledge and abilities. The trainer must use his/her judgment of the local setting to adapt the module content for best effect. The trainer must ensure that participants are aware of any cultural or community norms so they can adapt to them as necessary (e.g., if certain attire is expected).

Note: If the training course on integration of infant and young child feeding (IYCF) support into CMAM is conducted to complement this module, additional time should be set aside for the additional IYCF support field visit activities. Details can be found at <https://www.enonline.net/integrationiycfintocmam>.

Field Visit Objectives	Handouts to Take to Field Visit
Practice Conducting Interviews with Communities	Interview guide developed and provided by trainer
Consolidate Findings from Interviews	Handout 3.4 Community Outreach: From Assessment to Strategy
Practice Developing a Handbill	Handout 3.8 Reference: Handbill Messages
Practice Developing a Community Outreach Strategy and an Action Plan	Handout 3.13 Team Checklist for Community Outreach Field Visit

Materials

- Spiral-bound notebooks

Advance Preparations

- One week in advance, make arrangements with leaders of two communities to hold eight two-hour meetings in the communities. Four meetings will be held simultaneously in each community. Ideally, two communities that are very different from each other (e.g., environment, ethnicity, accessibility) should be selected, but the degree of local heterogeneity and availability of resources—especially transportation—will determine whether this is possible.
- Pointers:
 - Explain to the community leaders that the purpose of the meetings is to train health care managers and providers to consult with the community and that they will be asking community members about nutrition practices.
 - Select seven people for each community group.
 - If possible, have the mother/caregiver groups include women who are from different parts of the community but are likely to be comfortable talking together. The groups should not end up being dominated by one individual.
 - The interviews should be conducted where they are unlikely to be disturbed by curious onlookers. This need not necessarily be inside. It is best to avoid any spot connected with a powerful force such as the community council or the church/mosque.
 - The interview sites in each community should be separate enough so as not to disturb each other but close enough for the facilitator to circulate between them.
- While making arrangements for the locations, secure translators for each of the interview groups, assuming that the participants are not native speakers of the local language(s). This can be difficult, since good translation is a matter of temperament as well as of language competence. It should be sufficient for translators to be competent in spoken English; it is not necessary to use professional translators or individuals who have advanced knowledge of written English.
- One to two days in advance, the facilitators should re-familiarise themselves with the content of Module 3, especially the sections on conducting community assessment, formulating an outreach strategy, and developing messages and materials.
- One to two days in advance, the facilitators should develop three simple interview guides (lists of questions) covering questions for community leaders; extension workers, CHWs and volunteers; and the two community mothers/caregiver groups. Facilitators will need to tailor the questions to local contexts.
- The evening before the practicum, assign each participant to one of the eight groups. Ask the participants to designate two moderators/interviewers and one recorder for each group. Distribute the interview guides and ask the participants to review them and become comfortable with the content before the interviews. Have the moderators/interviewers decide which questions each will ask. Make sure designated recorders have spiral-bound notebooks for recording the discussion.
- The day before, ensure that transportation is available and, if appropriate, send a message to the communities confirming the team's arrival time. If possible, travel to the communities to confirm that arrangements for the group interviews are in place and to answer any questions the community members might have.

Module 3 FIELD VISIT ACTIVITY 1: PRACTICE CONDUCTING COMMUNITY INTERVIEWS

Small Working Groups: Conduct interviews with community leaders; existing extension workers, CHWs and volunteers; younger community mothers/caregivers; and older community mothers/caregivers including grandmothers using simple interview guides developed by trainers.

- Form small working groups, with two participants serving as moderator/interviewers and one serving as recorder.
- Transport participants to the two communities.
- Thank community leaders for allowing this learning opportunity, then have participants join their assigned groups.
- In each community, at least one facilitator circulates between the interview groups, noting progress and helping correct any problems or misunderstandings.
- In each group, have the two designated moderator/interviewers take turns asking questions and managing the interview.
- After the interview, the recorder should seek clarification for any uncertain points. After the interview subjects leave, the recorder completes the group's notes with the help of the other participants.
- Refer to **Handout 3.13 Team Checklist for Community Outreach Field Visit**.

Module 3 FIELD VISIT ACTIVITY 2: CONSOLIDATE FINDINGS FROM INTERVIEWS

Working Group Presentations, Feedback/Discussion: Consolidate and Present Findings

- Have participant groups consolidate findings from each community group they interviewed according to questions from the interview guides and this module's community assessment session.
- Ask each group to present its findings and write them on the flip chart. Help to tease out insights from the group presentations. Information is triangulated.
- Ask participants to discuss their experiences with the interviews. Offer an assessment based on observation of the interviews.
- Lead participants through a process of revision of the interview guides, stressing that the discipline of daily reflection and revision based on emerging insights is an important part of the assessment.
- Emphasise to participants that insights based on initial interviews must remain tentative. The normal practice is to conduct at least one such investigation for each outpatient care site.
- Develop a short list of emerging insights to guide discussion of strategy.
- Refer to **Handout 3.13 Team Checklist for Community Outreach Field Visit**.

Module 3 FIELD VISIT ACTIVITY 3: DEVELOP A HANDBILL

Working Groups: Develop a Handbill

- Form five working groups.
- Using **Handout 3.8 Reference: Handbill Messages** as an example, have each group develop a handbill, working through several stages, including: discussing and agreeing on the main messages; summarising these in bullet points; writing the text out in full sentences and agreeing on the wording; and refining text to the simplest language possible for a “final” draft.
- If time allows, trainers can arrange for translators (ideally two per group) to translate the handbill into the language of local CMAM users. The two translators should do this independently, compare their versions and discuss differences with the participants to select the most accurate rendering.
- Ask groups to share their handbills.
- Discuss in plenary.

Module 3 FIELD VISIT ACTIVITY 4: PRACTICE DEVELOPING A COMMUNITY OUTREACH STRATEGY AND AN ACTION PLAN

Group Discussion: Community Outreach Strategy and Action Plan

- Using **Handout 3.4 Community Outreach: From Assessment to Strategy** as a model, help participants review insights from the interviews to draw conclusions about strategy. Emphasize that the conclusions must be practical and actionable.
- Structure the discussion by asking participants to consider at least the following: the appropriate duration of outreach, whether or how long to rely on active case-finding and which model to use, the pros and cons of using existing networks of volunteers or extension workers, and the involvement of civil society and other partners outside the official health sector. If time allows, trainers may wish to address these strategic questions in smaller groups and compare the groups’ conclusions.
- Summarise the emerging strategy as bullet points on the flip chart, taking care to review the assessment insights that led to the conclusions.
- Ask participants to structure action plans around building a continuous relationship with the community, assisting the community with selecting outreach workers, training volunteers to perform case-finding, and engaging civil society partners.
- With the insights into the community that have been accumulated and shared, ask participants how they would allocate time for different mobilisation activities.

Activity: Feedback on Field Visit Session

Method: Feedback/Discussion

After the field visit, conduct a feedback session in which participants will:

- Provide feedback on strengths observed in the community outreach activities
- Raise issues for clarification by facilitators
- Identify key gaps that need more observation time

MODULE FOUR: OUTPATIENT CARE FOR THE MANAGEMENT OF SAM WITHOUT MEDICAL COMPLICATIONS

Module Overview

This module introduces participants to the concepts and protocols used in outpatient care for children with severe acute malnutrition (SAM) without medical complications. It provides an overview of admission and discharge processes and criteria, medical treatment and nutrition rehabilitation in outpatient care. Emphasis is placed on the use of an action protocol, which helps health care providers determine which children require referral to inpatient care and which children require follow-up at home.

To align with the 2013 World Health Organisation (WHO) guidance on the management of SAM in infants and children, this module has also been updated to provide guidance on the management of at-risk mothers and infants under 6 months of age (MAMI) without medical complications in outpatient care.

The module complements the WHO 2013 updates on the management of SAM in infants and children and the WHO training modules for the inpatient management of SAM with medical complications. It is intended to be used alongside national guidelines and national treatment protocols for the management of SAM.

The module also includes a field visit where participants will practice assessing and admitting at-risk mothers and infants under 6 months as pairs and children 6–59 months with SAM without medical complications to outpatient care. The field visit will also enable participants to practice managing infants and children in an outpatient care follow-on session. Participants will also have the opportunity during this field visit to practice the skills covered in **Module 2. Defining and Measuring Acute Malnutrition**.

Learning Objectives	Duration	Handouts and Exercises
1. Describe Outpatient Care for the Management of SAM Without Medical Complications	15 minutes	PowerPoint: Overview of CMAM from Module 1 (optional)
2. Describe Admission Criteria in Outpatient Care (Infants Under 6 Months and Children 6–59 Months)	45 minutes	Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria for Infants Under 6 Months and Children 6–59 Months Exercise 4.1 Outpatient Care Admission for Infants Under 6 Months and Children 6–59 Months
3. Describe the Process for Admissions and Outpatient Care Follow-On Sessions for Children 6–59 Months	1 ½ hours	Handout 4.3 Outpatient Care: Admission Process for Children 6–59 Months Handout 4.4 Outpatient Care Treatment Card for Children 6–59 Months Handout 4.5 RUTF Ration Card for Children 6–59 Months Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months

		Exercise 4.2 Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months
4. Explain Medical Treatment for the Management of Children With SAM Without Medical Complications in Outpatient Care	1 hour	Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference)
5. Explain Nutrition Rehabilitation for the Management of SAM Without Medical Complications in Outpatient Care (Children 6–59 Months)	30 minutes	Handout 4.11 Nutrition Rehabilitation and RUTF for Children 6–59 Months
6. Describe the Key Messages for Mothers/Caregivers of Children 6–59 Months Used in Outpatient Care	30 minutes	Handout 4.12 Key Messages for Individual Counselling for Mothers/Caregivers of Children 6–59 Months in Outpatient Care
7. Explain the Management of At-Risk Mothers and Infants under 6 Months of Age Without Medical Complications in Outpatient Care	1 hour	Handout 4.13 C-MAMI Tool Version 2.0: Breastfeeding Counselling and Support Actions Handout 4.14 Outpatient Care: Admission Process for At-Risk Mothers and Infants Under 6 Months Handout 4.15 Outpatient Care Treatment Card for At-Risk Mothers and Infants Under 6 Months
8. Recognising When Further Action Is Needed: Referral to Inpatient Care and Follow-Up Home Visits	45 minutes	Handout 4.16 Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months Handout 4.17 Referral to Inpatient Care or Follow-Up Home Visits for Infants Under 6 Months and Children 6–59 Months Handout 4.18 Referral Slip for Infants Under 6 Months and Children 6–59 Months Exercise 4.3 Identifying Infants Under 6 Months and Children 6–59 Months Who May Need Follow-Up Home Visits or Referral to Inpatient Care
9. Explain Discharge Criteria and Procedures for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months	30 minutes	Handout 4.19 Outpatient Care: Discharge Criteria for At-risk Mothers and Infants Under 6 Months and Children 6–59 Months Handout 4.20 Discharge Criteria and Exit Categories for CMAM Exercise 4.4 Partially Completed Outpatient Care Treatment Cards
10. Describe Linkages Between Outpatient Care and Other	30 minutes	Handout 1.11 Integrating CMAM into Routine Health

Services, Programmes, and Initiatives		Services at the District Level
Wrap-Up and Module Evaluation	15 minutes (additional 15–20 minutes for the optional exercise)	Handout 4.21 Essentials of Outpatient Care for SAM Without Medical Complications Optional Exercise 4.5 Outpatient Care Admissions Role Play
Field Visit for Outpatient Care	3 days	Handout 4.22 Outpatient Care Field Practice Checklist

Module Duration: Eight hours in classroom; three-day field practice

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.

Materials

- Mid-upper arm circumference (MUAC) tapes (numbered) and weighing scale
- Height board and weight-for-height (WFH) z-score chart (optional)
- Packets of ready-to-use therapeutic food (RUTF)
- Napkins (for sampling RUTF)
- Scissors
- Flip charts
- Markers
- Masking tape
- Handout 4.13 C-MAMI Tool Version 2.0: Breastfeeding Counselling and Support Actions
- Outpatient care treatment cards for children 6–59 months
- C-MAMI outpatient care treatment card for at-risk mothers and infants under 6 months
- RUTF ration cards for children 6–59 months
- Referral slips from outreach workers
- Projector (optional)
- PowerPoint from Module One (optional)

Advance Preparation

- Review national guidelines and protocols for the treatment of SAM in the country where the training is being conducted. Determine what age and criteria are used for admission. Determine whether weight-for-height (WFH)/ weight-for-length (WFL) is required for admission. If WFH/WFL is not required, use only the bilateral pitting oedema and MUAC criteria during the training. If WFH/WFL is required, include it in the training and use the tables for the WFH/WFL z-scores of the WHO standards (gender specific).
- Review the **Handout 4.13 C-MAMI Tool Version 2.0: Breastfeeding Counselling and Support Actions** and determine what adaptations need to be made to accommodate the management of at-risk mothers and infants under 6 months of age without medical complications in outpatient care.

- Ensure that you have the breastfeeding videos downloaded or available for the demonstration sessions in **Learning Objective 7: Explain the Management of At-Risk Mothers and Infants Under 6 Months of Age without Medical Complications in Outpatient Care.**
- Prepare sets of laminated cards with the admission and discharge criteria for at-risk mothers and infants under 6 months and children 6–59 months, action protocol, medical treatment, and nutrition rehabilitation protocols.
- Prepare a chart of national protocols for first-line antibiotic treatment for children with SAM, antihelminth, and malaria treatments.
- Obtain local versions of outpatient care treatment cards and RUTF ration cards if possible or use the standard cards.
- If optional **Exercise 4.5 Outpatient Care Admissions Role Play** is done, make cards with the roles' descriptions as well as copies of blank outpatient care treatment cards, blank RUTF ration cards, referral slips from outreach workers indicating red MUAC, and **Handout 4.11 Nutrition Rehabilitation and RUTF** (specifically the section on **RUTF Ration**). Also, make sure to have MUAC tapes and a doll available.
- Review relevant reference resources and further reading resources listed below.

Reference Resources

1. National guidelines for CMAM
2. World Health Organisation (WHO). 2013. *Guideline: Updates on the Management of Severe Acute Malnutrition in Infants and Children*. Geneva: WHO. Available at: http://www.who.int/nutrition/publications/guidelines/updates_management_SAM_infantandchildren/en/.
3. WHO. 2014. *Integrated Management of Childhood Illnesses (IMCI) Chart Booklet*. Available at: http://www.who.int/maternal_child_adolescent/documents/IMCI_chartbooklet/en/.
4. Emergency Nutrition Network (ENN). 2018. C-MAMI Tool Version 2.0. Available at <https://www.ennonline.net/c-mami>.
5. Core Group. 2015. *Essential Nutrition Actions and Essential Hygiene Actions Framework*. Available at: <http://coregroup.nonprofitsoapbox.com/resources/488-essential-nutrition-actions-and-essential-hygiene-actions-framework>.
6. Emergency Nutrition Network (ENN). 2009. *Integration of IYCF Support into CMAM*. Available at: <https://www.ennonline.net/integrationiycfintocmam>.
7. Valid International. 2006. *Community-based Therapeutic Care (CTC): A Field Manual*. Oxford: Valid International. Available at: <https://www.fantaproject.org/sites/default/files/resources/CTC-Field-Manual-Oct2006-508.pdf>

Further Reading Resources

1. National guidelines for integrated management of childhood illness (IMCI)
2. WHO. 2013. *Pocket Book of Hospital Care for Children: Guidelines for Management of Common Childhood Illnesses. 2nd Edition*. Available at: http://www.who.int/maternal_child_adolescent/documents/child_hospital_care/en/.

3. Lelijveld, N. et al. 2017. *A Review of Methods to Detect Cases of Severely Malnourished Infants Less than 6 Months for Their Admission into Therapeutic Care*. Emergency Nutrition Network. Available at: <https://www.enonline.net/mamicasedetectionreview>.
4. Bailey, J. et al. 2016. *Combined Protocol for SAM/MAM Treatment: The ComPAS study*. Available at: <https://www.enonline.net/fex/53/thecompasstudy>.
5. Maust, A. et al. 2015. "Severe and Moderate Acute Malnutrition Can Be Successfully Managed with an Integrated Protocol in Sierra Leone." *Journal of Nutrition*. Available at: <https://pdfs.semanticscholar.org/d5c2/e4bed4e18d6cdfa6d6b3b31f69d0ee347d54.pdf>.
6. Philip, T.J. et al. 2015. "Low-Dose RUTF Protocol and Improved Service Delivery Lead to Good Programme Outcomes in the Treatment of Uncomplicated SAM: A Programme Report from Myanmar." *Maternal & Child Nutrition*. 11(4):859–69. doi: 10.1111/mcn.12192. Epub 2015 Apr 7. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4672709/pdf/mcn0011-0859.pdf>.

Module 4 Learning Objective 1: Describe Outpatient Care for the Management of SAM Without Medical Complications

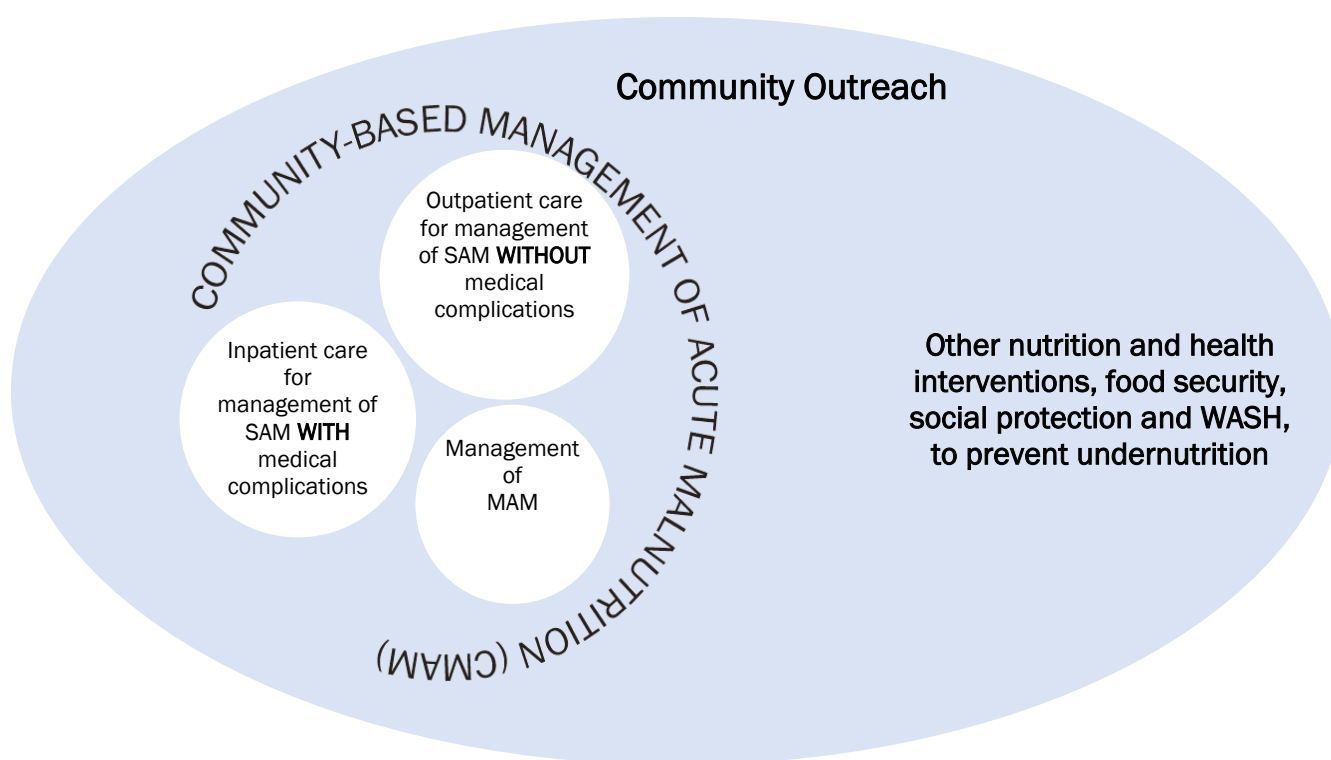
TRAINER: If necessary, review **Module One PowerPoint** presentation slides 48 through 53 on outpatient care for the management of SAM without medical complications.

GROUP DISCUSSION: COMMUNITY-BASED MANAGEMENT OF ACUTE MALNUTRITION. Draw **Figure 1** on the flip chart. Ask participants:

1. What is outpatient care? What does it entail?
2. Who receives outpatient care?
3. How does outpatient care for SAM without medical complications differ from inpatient care for SAM with medical complications?

Discuss and fill in gaps.

Figure 1. Core Components of CMAM



Module 4 Learning Objective 2: Describe Admission Criteria in Outpatient Care (Infants Under 6 Months and Children 6–59 months)

TRAINER: Become familiar with **Handout 4.1** Admission Criteria and Entry Categories for CMAM, **Handout 4.2** Outpatient Care: Admission Criteria for Infants Under 6 Months and Children 6–59 Months, and **Exercise 4.1** Outpatient Care Admission for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months.

BRAINSTORM: ADMISSION CRITERIA FOR OUTPATIENT CARE. Ask participants to name the characteristics of infants and children who should be admitted to outpatient care (i.e., infants under 6 months who are nutritionally vulnerable [i.e., moderate nutrition risk] with no medical complications and children 6–59 months who have SAM, have no medical complications, have an appetite). Write responses on the flip chart. If not named by the participants, explain that there are a few additional categories of children who should be admitted:

- Infants under 6 months of age who are nutritionally vulnerable without medical complications (i.e., moderate nutritional risk) or bilateral pitting oedema can be admitted for management in the outpatient care. Management of breastfed infants under 6 months of age should prioritize establishing or re-establishing effective exclusive breastfeeding by the mother or other female caregiver. Infants under 6 months who are not breastfed will also need to be assessed and provided targeted feeding support.
- Infants under 6 months who are nutritionally vulnerable with medical complications (i.e., high nutritional risk) and children 6–59 months with SAM and medical complications whose mother/caregiver refuses inpatient care despite advice. The infant will require follow-up home visits and close monitoring while in outpatient care.
- Children who a health care provider has determined should be admitted, such as children over 5 years of age with bilateral pitting oedema or who are severely wasted.
- Infants and children whose medical complications have resolved in inpatient care and have been referred to outpatient care to complete their nutrition rehabilitation.
- Infants and children who are recuperating from SAM and who return after defaulting (discharged after being absent for three consecutive sessions) and need to continue their treatment.

Refer participants to **Handout 4.1 Admission Criteria and Entry Categories for CMAM**. Walk participants through the information and answer any questions. Refer participants to **Handout 4.2 Outpatient Care: Admission Criteria for Infants Under 6 Months and Children 6–59 Months** for future reference.

PRACTICE: ADMISSION CRITERIA FOR OUTPATIENT CARE. Form working groups of three to four people. Distribute **Exercise 4.1 Outpatient Care Admission for Infants Under 6 Months and Children 6–59 Months**. Ask each working group to use the information provided in the exercise to decide whether the sample children should be admitted to outpatient care and to explain why or why not. Have groups share their answers in plenary. Discuss and fill in gaps, referring to **Exercise 4.1 Outpatient Care Admission for Infants Under 6 Months and Children 6–59 Months answer sheet** (on the next page).

Exercise 4.1 Outpatient Care Admission for Infants Under 6 Months and Children 6-59 Months (With Answers)

	Age (months)	Appetite	Bilateral Pitting Oedema	MUAC in mm	*WFH/WFL z-score (WHO)	Other information	Admitted to outpatient care?
Child 1	7	Yes	No	102	-3 ≤ to <-2		YES , based on MUAC and child has appetite
Child 2	24	Yes	No	117	<-3		YES , based on WFH and child has appetite (Note: If only MUAC is used, WFH would not be known and child would not be admitted to outpatient care because MUAC > 115)
Child 3	20	Yes	No	108	<-3		YES , based on MUAC YES , based on WFL and child has appetite
Child 4	16	Yes	++	117	-3 ≤ to <-2		YES , because child has bilateral pitting oedema grade ++ and child has appetite
Child 5	36	Yes	+	118	-3 ≤ to <-2		YES , because child has bilateral pitting oedema grade + and child has appetite
Child 6	12	No	No	95	<-3		NO , because child has SAM and has no appetite; refer to inpatient care
Child 7	50	Yes	No	112	<-3		YES , based on MUAC YES , based on WFH and child has appetite
Child 8	45	Yes	No	116	<-3		NO if MUAC only is used YES , based on WFH and child has appetite
Child 9	7	Yes	No	107	-3 ≤ to <-2		YES , based on MUAC and child has appetite
Child 10	5	No, infant is refusing to breastfeed	No	104	-3 ≤ to <-2	Recent failure to gain weight	YES , infant is nutritionally vulnerable with no medical complications (i.e., moderate nutritional risk). (Note: There is growing evidence on the use of MUAC to identify nutritional vulnerability in infants under 6 months. However, nutritional classification thresholds have not yet been established. It is recommended that MUAC data be collected for this age group to help build the evidence base on thresholds and case management.)

Note: In countries where presence of bilateral pitting oedema and mid-upper arm circumference (MUAC) are used for admission, adjust chart to remove information on weight-for-height (WFH)/ weight-for-length (WFL) z-score.

Module 4 Learning Objective 3: Describe the Process for Admissions and Outpatient Care Follow-On Sessions for Children 6–59 Months

TRAINER: Become familiar with **Handout 4.3** Outpatient Care: Admission Process for Children 6–59 Months, **Handout 4.4** Outpatient Care Treatment Card for Children 6–59 Months, **Handout 4.5** RUTF Ration Card for Children 6–59 Months, **Handout 4.6** Using Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months, and **Exercise 4.2** Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months.

PARTICIPATORY LECTURE: ADMISSION PROCESS FOR OUTPATIENT CARE. Refer participants to the overview of the outpatient care admission process in **Handout 4.3 Admission Process for Outpatient Care for Children 6–59 Months**. Walk participants through the steps, emphasizing the important considerations they need to take into account. Respond to questions.

PRACTICE: FILLING OUT AN OUTPATIENT CARE TREATMENT CARD AND RUTF RATION CARD. Distribute a local outpatient care treatment card if one is available. Otherwise, use **Handout 4.4 Outpatient Care Treatment Card for Children 6–59 Months**. Note that ALL children admitted to CMAM at the outpatient care site receive an outpatient care treatment card, including those being referred to inpatient care. Explain the general column and row details on the outpatient care treatment card and the information needed to fill one out. Review the content below and on **Handout 4.6 Using Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months**.

- Admission information provided on the outpatient care treatment card includes:
 - Name, age and sex of child, name of parents, place of origin
 - Date of admission, admission characteristics
 - Name of health facility with outpatient care site
 - Registration number
 - General food distribution access
 - Breastfeeding status
 - Anthropometry upon admission, admission criteria examined
 - Medical history
 - Physical examination
 - Vaccination status
 - Routine admission medication
 - Other medication
- Follow-up information provided on treatment card includes:
 - Anthropometry
 - Medical history
 - Physical examination
 - RUTF appetite test
 - Number of RUTF packets provided
 - Treatment outcome
 - Action taken

Refer participants to **Handout 4.5 RUTF Ration Card for Children 6–59 Months** and review the information found on there. Ask participants to form pairs and pass out copies of the Outpatient Care Treatment Cards and RUTF Ration Cards. Have participants complete **Exercise 4.2: Outpatient Care Treatment Card and RUTF Ration Card for Children 6–59 Months**. Respond to questions.

Brainstorm: Weekly Sessions at Outpatient Care. Referring back to the process in **Handout 4.3**, ask participants to suggest which activities and procedures occur in outpatient care follow-on sessions. (Answer: All activities and procedures should be included except for assigning a registration number, which occurs only at admission, and measuring height/length, which occurs only once per month if WFH/WFL is used).

Emphasize that during each session, it is essential to determine whether referral or follow-up home visits are necessary and explain the following points:

- The mother/caregiver and child should return to a health facility that provides outpatient care for SAM without medical complications on a weekly basis. If there is a problem with attendance due to distance or other reasons, it might be necessary to ask the mother/caregiver to come to outpatient care every two weeks; if this is the case the mother/caregiver should receive a two-week supply of RUTF.
- Bilateral pitting oedema is assessed and MUAC and weight are taken at each weekly outpatient care follow-on session. Height/length is measured once per month if it is necessary to calculate WFH/WFL z-score to reassess anthropometric status.
- The appetite test is done at every session.
- A nutrition and medical assessment (i.e. anthropometry, medical history, breastfeeding assessment for children 6–23 months, physical examination) is done at every outpatient care follow-on session.
- Complete doses of routine medicines are given according to routine medical protocols (this is covered in **Learning Objective 4**).
- An outpatient care action protocol is followed to determine whether referral or a follow-up home visit is needed (this is covered in **Learning Objective 8**).
- Additional medications given during outpatient care follow-on sessions should be noted on the outpatient care treatment card.
- RUTF is provided according to the child's weight, and the mother/caregiver is counselled on its use.
- The mother/caregiver is asked whether the child has eaten all the RUTF. If there are some packets left over from the previous week, the health care provider reduces the amount of RUTF given by that number of packets. For example, if the mother/caregiver has three packets left from a 14-packet ration, 11 packets are provided for the next week. The health care provider also should collect empty RUTF packets.
- The health care provider completes the outpatient care treatment card and RUTF ration card.

Module 4 Learning Objective 4: Explain Medical Treatment for the Management of Children With SAM Without Medical Complications in Outpatient Care

TRAINER: Become familiar with **Handout 4.7** Medical Treatment for the Management of SAM in Outpatient Care, **Handout 4.8** Routine Medicines for SAM in Outpatient Care, **Handout 4.9** Supplemental Medicines for SAM in Outpatient Care, and **Handout 4.10** Medicine Protocol Rationale for Outpatient Care (Reference).

PARTICIPATORY LECTURE: ROUTINE MEDICAL TREATMENT IN OUTPATIENT CARE. Refer participants to **Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care** and discuss, emphasising:

- When children should NOT receive malaria treatment
- Why iron and folic acid, and Vitamin A are NOT given routinely
- Which treatments are given during the child's first session at outpatient care (i.e., amoxicillin, malaria testing or treatment if appropriate) and which are given later (e.g., deworming, measles vaccination if necessary, treatment for anaemia if necessary)

Answer any questions and refer participants to **Handout 4.8 Routine Medicines for SAM in Outpatient Care**. In plenary, explain the details of the medical treatment protocols as they appear in each column and row. Relay to participants any adaptations/differences that should be made in accordance with country-specific national drug protocols.

PRACTICE: ROUTINE MEDICAL TREATMENT OF SAM. Ask participants to form groups of three. On a flip chart, write the basic information of a number of children in outpatient care (below). Ask participants to determine which medications and dosages each child needs based on whether the child is a new case, what medication s/he has already received, his/her medical condition, and his/her age.

- Patient 1: Girl, age 2 years
 - Referred from inpatient care after 10 days of stabilisation of medical complications, which included eye signs of vitamin A deficiency. The girl is now clinically well, has a good appetite, and received two doses of vitamin A on Day 1 and 2 of inpatient care for the treatment of vitamin A deficiency. It has been 5 days since she was discharged from inpatient care.
 - Bilateral pitting oedema: Grade +
 - Paracheck: Negative
 - Vaccination record: All up to date
 - Vitamin A: Day 1 and 2 of inpatient care

Answer: Give amoxicillin 3 times per day for 7 days; do not give malaria treatment; do not give measles vaccination (given after 4 weeks). Give the third dose of vitamin A (on day 15) to complete the treatment of eye signs.

- Patient 2: Boy, age 18 months
 - New admission
 - Bilateral pitting oedema: No
 - Paracheck: Positive
 - Vaccination record: Incomplete
 - Vitamin A last given: 6 months ago

Answer: Give amoxicillin 3 times per day for 7 days; give malaria treatment according to protocol; give measles vaccination on week four or as soon as possible, plus other vaccines as per expanded programme of immunisation (EPI); do not give vitamin A because it is already in the RUTF.

- Patient 3: Girl, 15 months
 - Second visit to outpatient care
 - Bilateral pitting oedema: grade +
 - Paracheck: Negative
 - Vaccination record: Incomplete
 - Vitamin A last given: 4 months ago
 - Amoxicillin last given: Week one on admission

Answer: Give mebendazole or other deworming; give measles vaccination on week four as well as other vaccines as per EPI; do not give malaria treatment; do not give vitamin A because it is already in the RUTF.

REVIEW AND REFERENCE: Direct participants to **Handout 4.9 Supplemental Medicines for SAM in Outpatient Care**. Review briefly the supplemental medicines on Handout 4.9 and in what circumstances they would be given. Answer any questions. Direct participants to **Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference)** to be used for their reference in the future.

Module 4 Learning Objective 5: Explain Nutrition Rehabilitation for the Management of SAM Without Medical Complications in Outpatient Care (Children 6–59 Months)

TRAINER: Become familiar with Handout 4.11 Nutrition Rehabilitation and RUTF for Children 6–59 Months.

DEMONSTRATION: TASTING RUTF. Form small groups and distribute one packet of RUTF and napkins to each group. Explain how to open the package and ask participants to taste the RUTF. Ask for any feedback from the groups.

Ask groups to describe what they think the RUTF's ingredients are and then write RUTF's typical composition on a flip chart.

- **Composition of lipid-based RUTF**
 - 25% peanut butter
 - 26% milk powder
 - 27% sugar
 - 20% oil
 - 2% combined mineral and vitamin mix (CMV)

GROUP DISCUSSION: USING RUTF. With participants still in small groups, ask them to discuss:

- How RUTF's composition compares with F100 (similar in composition but RUTF has iron and is about five times more energy-nutrient dense)
- Why RUTF can be used for outpatient care (it can be eaten at home and doesn't require cooking or mixing with water, which prevents growth of bacteria)

Discuss further in plenary, fill in any gaps, and answer any questions.

PARTICIPATORY LECTURE: NUTRITION REHABILITATION AND RUTF. Direct participants to **Handout 4.11 Nutrition Rehabilitation and RUTF for Children 6–59 Months**. Point out to participants the tables entitled "RUTF Rations in Outpatient Care" dealing with Plumpy'nut and locally produced RUTF in packets, and explain how to use them. Write different weights on the flip chart then ask participants how many packets to give to a child of each weight.

PRACTICE: DETERMINING RUTF RATION SIZE. Ask participants to regroup into small groups. Ask them to use **Handout 4.11** to determine how much RUTF to give each child in the examples below. Ask for volunteers to write answers on the flip chart. Discuss and fill in gaps.

RUTF RATION PRACTICE.

Example 1: 92 g packets of RUTF are distributed through outpatient care. Child 1 weighs 6.8 kg and comes to outpatient care every two weeks. How much RUTF do you give the child? (Answer: 36 packets)

Example 2: Child 3 weighs 7.2 kg and will return to outpatient care next week. How many packets of your locally produced RUTF will you give the child? (Answer: 18 packets)

When finished with practice, point out to the participants that there is ongoing research on the combined protocol for SAM and MAM treatment to test alternative treatment protocols by reducing the RUTF doses. Refer participants to the evidence from Sierra Leone, review, and answer questions. Details on the combined protocol for SAM and MAM treatment will be covered in **Module 6: Management of MAM in the Context of CMAM**.

Module 4 Learning Objective 6: Describe the Key Messages for Mothers/Caregivers of Children 6–59 Months Used in Outpatient Care

TRAINER: Become familiar with **Handout 4.12** Key Messages for Individual Counselling for Mothers/Caregivers of Children 6–59 Months.

GROUP DISCUSSION: KEY MESSAGES FOR MOTHERS/CAREGIVERS. Explain to participants that outpatient care includes individual counselling, health and nutrition education, and behaviour change communication (BCC) at each session. The initial counselling session should focus only on a few key messages so that the mother/caregiver clearly understands the practices that are essential to managing SAM in a child. As the child’s condition improves, other messages should be given.

In the initial counselling session, health care providers counsel the mother/caregiver with key messages on the following topics:

1. How to feed RUTF to the child
2. When and how to give the medicines to the child
3. When to return to outpatient care
4. Understanding danger signs and making sure the child is brought to the health facility immediately if his or her condition deteriorates

WORKING GROUPS: DEVELOPING KEY MESSAGES FOR MOTHERS/CAREGIVERS. Ask working groups to write six key messages to give to the mother/caregiver during his/her initial session in outpatient care. Have one group present and the other groups add additional messages. Discuss, clarify, and fill in gaps. Also discuss what additional messages would be important in subsequent outpatient care follow-on sessions.

ROLE-PLAY: INDIVIDUAL COUNSELLING. In working groups, have one participant act as a mother/caregiver who has come to outpatient care for the first time and another act as the CMAM counsellor; the rest of the working group’s participants should observe. Have the actors practice counselling with the most important key messages. Ask the observers for feedback. Have the mother/caregiver and counsellor switch roles and continue practicing if time allows.

BRAINSTORM: HEALTH AND NUTRITION EDUCATION. Ask participants to think of key health and nutrition topics that should be made a part of individual counselling in outpatient care follow-on sessions. Write answers on the flip chart and fill in any gaps. Possible answers include:

- Hygiene
- Continuation of recommended breastfeeding behaviours (especially with infants and young children ages 6-23 months)
- The importance of frequent and active feeding
- What local foods to give young children (while reinforcing the message that the child in outpatient care MUST finish eating all RUTF before other foods are given)
- Identifying undernutrition (when to bring children to outpatient care)
- Managing diarrhoea and fever
- Recognising danger signs

ROLE-PLAY: HEALTH AND NUTRITION MESSAGES. With participants in the same working groups, ask the observers in the role-play above to now break into pairs to play the roles of mother/caregiver and CMAM counsellor. Ask them to practice counselling with health and nutrition messages. Ask observers to provide feedback. Switch roles and continue practicing if time allows.

Module 4 Learning Objective 7: Explain the Management of At-Risk Mothers and Infants Under 6 Months of Age Without Medical Complications in Outpatient Care

TRAINER: Become familiar with **Handout 4.13** C-MAMI Tool Version 2.0: Breastfeeding Counselling and Support Actions, **Handout 4.14** Admission Process for Outpatient Care for At-Risk Mothers and Infants Under 6 Months of Age, and **Handout 4.15** C-MAMI Outpatient Care Treatment Card.

PARTICIPATORY LECTURE: ADMISSION PROCESS FOR OUTPATIENT CARE FOR AT-RISK MOTHERS AND INFANTS UNDER 6 MONTHS OF AGE. Refer participants to the outpatient care admission process for at-risk mothers and infants under 6 months of age in **Handout 4.14** Admission Process for Outpatient Care for At-Risk Mothers and Infants Under 6 Months of Age. Walk the participants through the steps, emphasizing the important considerations they need to take into account. Respond to questions.

PRACTICE: FILLING OUT A C-MAMI OUTPATIENT CARE TREATMENT CARD. Distribute a local C-MAMI outpatient care treatment card if one is available. Otherwise, use **Handout 4.15** C-MAMI Outpatient Care Treatment Card. Note that ALL pairs of at-risk mothers and infants admitted for management in the outpatient care site receive an outpatient care treatment card, including those being referred to inpatient care. One treatment card should be issued to one mother-infant pair. Explain the general column and row details on the C-MAMI outpatient care treatment card and the information needed to fill one out.

PARTICIPATORY LECTURE. Ask participants to refer to the **Handout 4.13**, explain recommended breastfeeding practices as well as counselling and support for effective breastfeeding covering the following four areas: good attachment, effective suckling, frequency of breastfeeds, and receiving other liquids and foods. Respond to questions.

DEMONSTRATION: GOOD ATTACHMENT. If possible, show the following videos. After the video session, discuss and respond to questions (*select the appropriate video depending on audience: health worker training and counselling/helping mothers*).

- Breastfeeding attachment: <https://globalhealthmedia.org/portfolio-items/attaching-your-baby-at-the-breast/?portfolioID=10861>
- Breastfeeding positions: <https://globalhealthmedia.org/portfolio-items/positions-for-breastfeeding/?portfolioID=10861>
- Effective suckling and breastfeeding frequency: <https://globalhealthmedia.org/portfolio-items/is-your-baby-getting-enough-milk/?portfolioID=10861>

PARTICIPATORY LECTURE: COUNSELLING AND SUPPORT FOR EFFECTIVE BREASTFEEDING. Ask participants to refer to the **Handout 4.13**. Explain the recommended breastfeeding practices as well as counselling and support for effective breastfeeding. Ensure that you cover the following areas:

- Perception of “not enough” breast milk
- Breast conditions such as engorgement; sore or cracked nipples; plugged ducts and mastitis; flat, inverted, large, or long nipples; thrush in the infant and mother
- Low birth weight infant; kangaroo mother care (KMC)
- Breast milk expression, cup feeding, and storage of breast milk

- Relactation
- Other breastfeeding-related concerns including: Mother expresses concern about diet, mother expresses concern about working or being away from her infant, twin delivery, adolescent mother, mother HIV or TB infected

DEMONSTRATION: COUNSELLING AND SUPPORT FOR EFFECTIVE BREASTFEEDING. If possible, show the following videos. After the video session, discuss and respond to questions. *(Select the appropriate video depending on audience: health worker training and counselling/helping mothers.)*

- Perception of 'not enough' breast milk: <https://globalhealthmedia.org/portfolio-items/increasing-your-milk-supply/?portfolioID=10861>
- Nipple pain: <https://globalhealthmedia.org/portfolio-items/what-to-do-about-nipple-pain/?portfolioID=10861>
- Breast pain: <https://globalhealthmedia.org/portfolio-items/what-to-do-about-breast-pain/?portfolioID=10861>
- Breast engorgement: <https://globalhealthmedia.org/portfolio-items/breast-engorgement/?portfolioID=10861>
- Thrush: <https://globalhealthmedia.org/portfolio-items/thrush/?portfolioID=5638>
- How to express breast milk: <https://globalhealthmedia.org/portfolio-items/how-to-express-breastmilk/?portfolioID=10861>
- Storing breast milk safely: <https://globalhealthmedia.org/portfolio-items/storing-breastmilk-safely/?portfolioID=10861>
- Cup feeding a small baby: <https://globalhealthmedia.org/portfolio-items/cup-feeding-your-small-baby/?portfolioID=13325>

PARTICIPATORY LECTURE: COUNSELLING AND SUPPORT ACTIONS FOR THE MOTHER. Ask participants to refer to **Handout 4.13**. Explain the recommended counselling and support practices covering the following areas: nutrition; health care services; water, sanitation, and hygiene (WASH); health education/information; and social support. Respond to questions.

WORKING GROUPS. Ask participants to form groups of 4–5 people. Each group should discuss and write down the information they would give the mother and community to help explain the process they will experience when admitted in inpatient care. Have one group present and the other groups add additional points. Discuss and clarify any points, referring to **Handout 4.13**.

Module 4 Learning Objective 8: Recognising When Further Action Is Needed: Referral to Inpatient Care and Follow-Up Home Visits

TRAINER: Review **Handout 4.16** Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months; **Handout 4.17** Referral to Inpatient Care or Follow-Up Home Visits for Infants Under 6 Months and Children 6–59 Months; **Handout 4.18** Referral Slip for Infants Under 6 Months and Children 6–59 Months, and **Exercise 4.3** Identifying Infants Under 6 Months and Children 6–59 Months Who May Need Referral to Inpatient Care or Follow-Up Home Visits.

BRAINSTORM: ACTION PROTOCOL FOR REFERRAL AND FOLLOW-UP. Note to participants that an action protocol (in line with integrated management of childhood illness [IMCI] guidelines) has been developed to help health care providers determine:

- Whether infants under 6 months and children 6–59 months should be referred to inpatient care (e.g., due to medical complications, no appetite, deteriorating condition, or presence of any danger sign, including infant feeding difficulties)
- Whether children require follow-up visits at home between outpatient care follow-on sessions (e.g., weight loss, deteriorating condition, not eating enough RUTF, absent from outpatient care follow-on session), which may be done by an outreach worker (e.g., community health worker [CHW], volunteer)

In plenary, ask participants to name danger signs, feeding difficulties, and medical complications that would require referral to inpatient care. Write them on the flip chart. Then ask what medical complications or symptoms might require a follow-up home visit. Refer participants to **Handout 4.16 Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months** and compare responses on the flip chart to those in the second column of the action protocol. Describe symptoms that would require either referral or follow-up visits (e.g., bilateral pitting oedema +++, weight loss for two consecutive weeks) and ask what action is dictated by the protocol: referral to inpatient care or follow-up home visits. Continue asking questions until participants seem comfortable using the action protocol.

PARTICIPATORY LECTURE: PROCEDURES FOR REFERRING PATIENTS. Explain to participants the inpatient care referral system, use of referral slips, referral to tertiary care and key points related to referring for follow-up home visits. Refer participants to **Handout 4.17 Referral to Inpatient Care or Follow-Up Home Visits for Infants Under 6 Months and Children 6–59 Months**.

PRACTICE: IDENTIFYING AND REFERRING CHILDREN. Direct participants to **Exercise 4.3 Identifying Infants Under 6 Months and Children 6–59 Months Who May Need Referral to Inpatient Care or Follow-Up Home Visits**. Have participants form groups of three or four and ask them to read the descriptions of the children and determine what action to take: referral, follow-up home visit or continuation in outpatient care (see **Exercise 4.3** answers below). Ask participants to refer to **Handout 4.16 Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months**. Have groups present and explain their answers.

Distribute **Handout 4.18 Referral Slip for Infants Under 6 Months and Children 6–59 Months** and demonstrate how to fill it out using a sample child from **Exercise 4.3** who required inpatient care.

Exercise 4.3 Identifying Infants Under 6 Months and Children 6–59 Months Who May Need Referral to Inpatient Care or Follow-Up Home Visits (with answers)

Child A

Question: Child A is 2 years old, has a MUAC of 111 mm and has been referred by the CHW to CMAM services. On admission, the child refuses to eat the RUTF during the appetite test. You ask his mother/caregiver to move to a quiet area and try again. After a half-hour, the child still refuses to eat the RUTF. During the medical examination, you discover that the child has been vomiting for two days. What action is needed?

Answer: Refer to inpatient care for medical care and support because the child has a serious danger sign of no appetite.

Child B

Question: Child B is presented at the outpatient care site with bilateral pitting oedema + and a MUAC of 117 mm. The child has good appetite and no other signs of medical complications. What action is needed?

Answer: Admit to outpatient care as a bilateral pitting oedema admission.

Child C

Question: Child C was admitted to outpatient care with a MUAC of 109 mm and weight of 10 kg. The child did not gain any weight in the first three weeks, and by the fourth week has actually lost weight; the child now weighs 9.5 kg. What action is needed?

Answer: This child is not gaining weight after four weeks in the CMAM service; you must refer him/her to inpatient care for further medical assessment and treatment. Ideally this child should have had a follow-up home visit after their outpatient care follow-on session the previous week (after the third week), according to outpatient care action protocols. Refer to the child's outpatient care treatment card (or to the CHW or volunteer who visited the home if nothing was written on the card) to see how the child was doing at home and what the possible reasons for not gaining weight are, based on the follow-up home visit. Discuss this with the mother/caregiver and then refer the child to inpatient care.

Child D

Question: Child D is presented at the outpatient care site with bilateral pitting oedema ++ and a MUAC of 110 mm. What action is needed?

Answer: Refer to inpatient care for medical care and support because the child has marasmic kwashiorkor. All marasmic kwashiorkor cases should be referred to inpatient care.

Child E

Question: Child E is a three-month-old girl. Her mother was ill with the flu and stopped breastfeeding one week ago. The infant is being fed tea and cow's milk, appears not to be gaining weight, and is clinically well. What action is needed?

Answer: The mother-infant pair should be enrolled in outpatient care to re-establish exclusive breastfeeding. Explain the breastfeeding basics—good attachment, effective suckling, frequency of breastfeeding, gradual elimination of tea and cow's milk, supply and demand—building her confidence along the way. Discuss building up her milk supply: what it takes, how long it might take, what is the likelihood of success, what might be other options, and what would be the upside/downside of relactation vs. other options. Address her questions: Will she need to eat more? Is her diet sufficient (quantity/quality)? Mother needs to be linked to family and community support.

Child F

Question: Child F is presented at the outpatient care site with bilateral pitting oedema ++++. You want to refer the child to the hospital. Despite your best efforts to persuade the mother, her family refuses to let her take the child to the hospital. What action is needed?

Answer: All cases of bilateral pitting oedema +++ should be referred to inpatient care for medical care and support. However, if a mother/caregiver refuses to take the child to inpatient care, the child should be admitted to outpatient care and receive the systematic treatment. The child should receive regular follow-up home visits during the first weeks to monitor his/her condition, and the mother/caregiver should be encouraged to bring the child back to the health facility if his/her condition worsens at any time. The child should again be referred to inpatient care if his/her condition worsens.

Child G:

Question: Child G is above 6 months and was admitted with a MUAC of 109 mm and a weight of 5 kg. The child gained a little weight the first week but has not gained weight for the past two weeks. His medical assessment does not show any signs of illness or medical complications.

Answer: The health care provider should talk with the mother/caregiver about how the child is eating the RUTF and observe the appetite test. The health care provider should ask whether the child has had diarrhoea, vomiting or fever and should give counselling. The child also requires a follow-up home visit.

Child H

Question: Child H is a 2-week-old boy whose mother is breastfeeding. The infant has now regained his birth weight. The mother thinks she is not producing enough milk for him and wants to give him some diluted cow's milk. What action is needed?

Answer: The mother-infant pair should be enrolled in outpatient care. Counsel and support the mother (and family) to continue to breastfeed. Review breastfeeding basics: good attachment; effective suckling; frequency of breastfeeds; not giving any plain water, liquids, or solids. Talk with the mother about why she thinks she doesn't have enough breast milk, explain supply and demand, and build her confidence. Connect the mother to any community or facility breastfeeding support. Ask the mother to return with her son the following week.

Module 4 Learning Objective 9: Explain Discharge Criteria and Procedures for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months

TRAINER: Review **Handout 4.16** Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months and become familiar with **Handout 4.19** Outpatient Care: Discharge Criteria for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months, **Handout 4.20** Discharge Criteria and Exit Categories for CMAM, and **Exercise 4.4** Partially Completed Outpatient Care Treatment Cards.

PARTICIPATORY LECTURE: DISCHARGE FROM OUTPATIENT CARE. Using the text in **Handout 4.19 Outpatient Care: Discharge Criteria for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months** as a reference, review the criteria for discharge from outpatient care, noting that:

- A child is discharged from outpatient care when s/he has recovered from bilateral pitting oedema or low weight and, therefore, no longer has SAM.
- The decision to discharge the child is based on his/her recovery from the initial SAM condition, consistently gaining weight and being clinically well and alert.
- Discharge rules differ based on the criteria used to admit the child.

Refer participants to **Handout 4.20 Discharge Criteria and Exit Categories for CMAM**, which deals with outpatient care discharge criteria and exit categories.

PRACTICE: USING OUTPATIENT CARE TREATMENT CARDS TO DETERMINE ACTION NEEDED. Direct participants to **Exercise 4.4 Partially Completed Outpatient Care Treatment Cards** and to refer back to **Handout 4.16** Outpatient Care Action Protocol. Ask them to use the outpatient care action protocol to determine what action is needed (discharge, follow-up home, referral) and to fill out the treatment card accordingly. In plenary, discuss what they decided to do and any issues with completing the outpatient care treatment cards. Discuss and fill in gaps.

Exercise 4.4 Partially Completed Outpatient Care Treatment Cards (with answers)

Example 1 (Jemma Banda): Child Is Ready for Discharge

The pre-filled outpatient care treatment card (to the 12th week) shows that the child was admitted with a MUAC of 109 mm. The child has had sustained weight gain for the past two weeks and is clinically well. *(Participants should determine that the child is ready for discharge and fill out the outpatient care treatment card accordingly).*

Example 2 (Adam Ali): Child Requires Follow-Up

The pre-filled outpatient care treatment card (to the fourth week) shows that the child has not gained weight for the past two weeks and weighs 5 kg. At the next outpatient care follow-on session, the child still weighs 5 kg. *(Participants should determine that the child requires a follow-up home visit and fill out the outpatient care treatment card accordingly, noting what action would be taken [inform the outreach worker]).*

Example 3 (Florence Phiri): Infant Under 6 Months Requires Referral to Inpatient Care

The pre-filled C-MAMI outpatient care treatment card (to the third week) shows that the infant is not breastfeeding effectively, and not gaining weight. The infant was referred to inpatient care on the second

week but mother refused referral. On the third week of outpatient care follow-on session, the infant still weighs 3.4 kg, is unwell and not breastfeeding.

(Participants should determine that the infants requires referral to inpatient, the mother will need intensive counselling and support on what to expect and experience in inpatient care. Participants should fill out the C-MAMI outpatient care treatment card accordingly, noting what action would be taken [referral, counselling and support]).

GROUP DISCUSSION: DISCHARGE PROCESS. Ask participants to think through specific actions to take in the process of discharge from outpatient care. Write answers on the flip chart. If participants have trouble naming actions, provide coaching to elicit the responses, below:

- The child 6-59 months is given a ration of RUTF to support transition to family food. (This usually consists of approximately seven 92-gram packets of RUTF.)
- The immunisation status is checked and updated.
- Make sure the infant or child has received all required medicines (e.g., antibiotics). Give any vaccinations (e.g., measles, other EPI) that were not provided earlier.
- The mother/caregiver is given guidance on care practices and asked to return if the infant's or child's condition deteriorates.

Module 4 Learning Objective 10: Describe Linkages Between Outpatient Care and Other Services, Programmes, and Initiatives

TRAINER: Review **Handout 1.11** Integrating CMAM into Routine Health Services at the District Level. If this content was covered in depth in Module One, it can be briefly reviewed here.

WORKING GROUPS: LINKING OUTPATIENT CARE TO OTHER SERVICES. Note to participants that outpatient care provides a good opportunity to link the management of SAM to other services, including prevention programmes such as growth monitoring and promotion (GMP). Linkages can and should be made with IMCI, postnatal care, national level or nongovernmental organisation (NGO) food distribution programmes, programmes to manage MAM, immunisations and Vitamin A supplementation, family planning, water and sanitation, health and nutrition education, malaria and HIV treatment, food security and livelihoods programmes, and other support services.

Ask participants to form working groups of three or four, by district or region if possible, and distribute cards. Ask each group to write on a card all the health services, programmes and initiatives in their district and explain how these can link to outpatient care (mapping). Ask groups to post their cards and explain their prescribed links to outpatient care. Discuss. Leave the cards posted for the remainder of the training.

Module 4 Wrap-Up and Module Evaluation

TRAINER: Become familiar with **Handout 4.21** Essentials of Outpatient Care for SAM Without Medical Complications and, if applicable, **Optional Exercise 4.5** Outpatient Care Admissions Role-Play.

OPTIONAL ROLE-PLAY: PRACTICING ADMISSION TO OUTPATIENT CARE. To prepare for this role-play, make copies of blank outpatient care treatment cards, blank RUTF ration cards, referral slips from outreach workers indicating red MUAC, and **Handout 4.11 Nutrition Rehabilitation and RUTF for Children 6—59 Months** (specifically the section on **RUTF Ration**). MUAC tapes and a doll are also needed.

Ask for two volunteers: one to play a mother with a small child, and the other to play a nurse in charge of outpatient care. Give each volunteer a card with the description of his/her role, as explained in **Exercise 4.5 Outpatient Care Admissions Role-Play**, below, and after the volunteers have had a few minutes to review their roles, begin the role-play.

Once finished, discuss the role-play in plenary, asking participants to fill in any gaps and to make suggestions on how to keep assessments running smoothly. If time permits, repeat the role-play with other volunteers.

Exercise 4.5 Outpatient Care Admissions Role-Play

Mother with a Small Child:

- Use a doll to simulate your child. Give the child a name (if culturally accepted).
- Your child is about 10 months old (you do not know exactly), and is your youngest. You have five other children. Your husband died about a year ago after a long illness.
- You breastfeed her, but you do not feel very well yourself and the baby does not seem to get any milk. You give her maize porridge and sometimes cow's milk, but she does not have much appetite and is now thin.
- She has had runny diarrhoea for the past week, and this is not the first time. Every time she has diarrhoea, you stop breastfeeding.
- The CHW in your village measured your child with a tape and pressed her feet. He told you that your child was thin. He said you must go to the clinic on Thursday, and they would give you some special food and medicine for your child. He gave you a piece of paper with something written on it and told you to give it to the nurse, but you do not know what it says exactly, because you cannot read.
- You are willing to go to the clinic even though it is a three-hour walk because you heard from other mothers in your village that the clinic is giving a special peanut paste food for thin and swollen children. You hope your visit to the clinic will be worth it this time. You have been there before and never had a good experience. You hope that the nurse will make your child well and that you will get some food.
- You should wait for the nurse to ask you questions about your child and her condition. If the nurse does not ask, you can tell him/her a few things and hope this will lead to more questions.

Outpatient Care Nurse:

- You are a nurse, and run the CMAM outpatient care services at your clinic every Thursday.
- A mother presents with a thin baby.
- You ask for the referral slip from the CHW, which shows a red MUAC. The child has already been weighed and is 4.5 kg.

- You take the MUAC again and find it to be 109 mm. Then take a medical history and ask the mother questions about her child's condition.
- Follow the outpatient care treatment card and make sure you conduct a thorough assessment, including a medical examination and RUTF appetite test, so that you can completely fill in the outpatient care treatment card with the necessary information. Fill in the outpatient care treatment card and, if necessary, ask the mother questions to help fill in any gaps.
- Determine what action is needed: admission to outpatient care, referral to inpatient care, or referral to supplementary feeding.
- If you decide to admit the child to outpatient care, make sure to discuss key messages with the mother. Take note of what the mother tells you when you discuss her child's condition; this will help you to know which messages to emphasise.
- If you give RUTF, determine how much is needed according to the child's weight. Fill in the RUTF ration card with all applicable information.
- Tell the mother about the importance to continue breastfeeding, and before every RUTF feeding. Direct her to increase the number of breast feeds when the baby has diarrhoea. Provide guidance on strengthening lactation.

Suggested Method: Review of learning objectives and completion of evaluation form

- Review the learning objectives of the module. In this module, we have:
 1. Described outpatient care for the management of SAM without medical complications
 2. Described outpatient care admission criteria (infants under 6 months and children 6–59 months)
 3. Described the process for admissions and weekly outpatient care follow-on sessions for children 6–59 months)
 4. Explained medical treatment for the management of children with SAM without medical complications in outpatient care
 5. Explained nutrition rehabilitation for the management of SAM without medical complications in outpatient care (children 6–59 months)
 6. Described the key messages given to mothers/caregivers of children 6–59 months during outpatient care
 7. Explained the management of at-risk mothers and infants under 6 months of age without medical complications in outpatient care.
 8. Used an action protocol to determine when additional action is needed
 9. Explained discharge criteria and procedures for at-risk mothers and infants under 6 months and children 6–59 months
 10. Described linkages between outpatient care and other services, programmes, and initiatives
- Ask for any questions and feedback on the module. Distribute **Handout 4.21 Essentials of Outpatient Care** for SAM Without Medical Complications as a summary of Module 4.
- Let participants know that they will have an opportunity to practice during the outpatient care field visit.
- Ask participants to fill out the module evaluation form.

Module 4 Outpatient Care Field Practice

Overview

A maximum of five participants should be at each outpatient care site on a given day. Coordinate with as many outpatient care sites as necessary to keep the number of participants at five or fewer.

An experienced health care provider, ideally someone affiliated with the outpatient care site, should mentor the participants, first by demonstrating the activities, then by inviting participants to take on more responsibility. Participants must complete all activities under the supervision of an experienced health care provider.

Be certain that participants bring their copies of all handouts dealing with admission and discharge criteria and action, medical treatment, and nutrition rehabilitation protocols (listed below), as well as any other tools trainers deem necessary. The field practice for **Module 2: Defining and Measuring Acute Malnutrition** will be done during this visit, so participants also should bring **Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height/Length**.

Pair participants with someone who speaks the local language.

Preparation of Outpatient Care Field Practice

Refer participants to **Handout 4.22 Outpatient Care Field Practice Checklist** and discuss and review the procedures and steps that participants will undertake at the community-based sites:

- Anthropometry measurements (four children including one infant under 6 months, if possible)
- Assessment of nutritional vulnerability of mothers and infants under 6 months of age (three mother-infant pairs, if possible)
- Admission (four children, if possible)
- Outpatient care follow-on session (four children, if possible)
- Discharge (three children, if possible)
- Accepting referrals from inpatient care
- Talking with staff and mothers/caregivers who come to outpatient care

Participants might need to see as many cases as possible to understand the different scenarios of decision-making during admission, outpatient care follow-on sessions and discharge.

Learning Objectives	Handouts to Take to Outpatient Care Field Practice
1. Assess and Admit a Child to Outpatient Care	Handout 2.4 Assessing Age, Bilateral Pitting Oedema, MUAC, Weight and Height (from Module 2) Handout 4.1 Admission Criteria and Entry Categories for CMAM Handout 4.2 Outpatient Care: Admission Criteria for Infants Under 6 Months and Children 6–59 Months

Learning Objectives	Handouts to Take to Outpatient Care Field Practice
2. Assess and Treat a Child During an Outpatient Care Follow-On Session	Handout 4.3 Outpatient Care: Admission Process for Children 6–59 Months Handout 4.7 Medical Treatment for the Management of SAM in Outpatient Care Handout 4.8 Routine Medicines for SAM in Outpatient Care Handout 4.9 Supplemental Medicines for SAM in Outpatient Care Handout 4.10 Medicine Protocol Rationale for Outpatient Care (Reference)
3. Assess and Manage an At-Risk Mother and Infant Under 6 Months of Age without Medical Complications in Outpatient Care	Handout 4.11 Nutrition Rehabilitation and RUTF for Children 6–59 Months Handout 4.12 Key Messages for Individual Counselling at Outpatient Care for Mothers/Caregivers of Children 6–59 Months 4.13 C-MAMI Tool Version 2.0: Breastfeeding Counselling and Support Actions Handout 4.14 Outpatient Care: Admission Process for At-Risk Mothers and Infants Under 6 Months Handout 4.15 Outpatient Care Treatment Card for At-Risk Mothers and Infants Under 6 Months Handout 4.16 Outpatient Care Action Protocol for Infants Under 6 Months and Children 6–59 Months Handout 4.19 Outpatient Care: Discharge Criteria for At-risk Mothers and Infants Under 6 Months and Children 6–59 Months Handout 4.20 Discharge Criteria and Exit Categories for CMAM Handout 4.22 Outpatient Care Field Practice Checklist

Module 4 Field Practice Learning Objective 1: Assess and Admit a Child to Outpatient Care

Hands-On Practice at site: Practice admission of children to outpatient care (admit four children during hands-on practice)

(NOTE: THIS INCLUDES CHILDREN REFERRED FROM INPATIENT CARE)

Anthropometry

- Assess children for bilateral pitting oedema
- Measure MUAC, weight, height/length
- Classify nutritional status
- Record nutrition indicators on outpatient care treatment cards and RUTF ration cards

New Admissions

- Obtain registration details from mother/caregiver and child's record
- Take medical history
- Conduct physical examination
- Test appetite (wash hands before handling the RUTF)
- Decide: referral to inpatient care if a medical complication exists, admission to outpatient care
- Calculate doses and give routine medicines to child
- Explain medical treatment to mother/caregiver
- Calculate amount of RUTF for child, record it and give ration (based on child's weight and frequency of visit)
- Check breastfeeding status for children 6–23 months
- Discuss key messages with mothers/caregivers
- Fill out RUTF ration cards for children in the service
- Ask mother/caregiver to repeat instructions on giving medicine and RUTF
- Link with outreach worker

Accepting Referrals from Inpatient Care

- Review referral slip from inpatient care and record relevant information on outpatient care treatment card (including medicines)
- Review information and medications provided in inpatient care, confirm medicines received to date with mother/caregiver, and adjust outpatient care medicines for admission
- Follow admission protocols (i.e. test appetite, calculate RUTF ration, breastfeeding status, discuss key messages/practices, fill out RUTF ration card, link with outreach worker)

Module 4 Field Practice Learning Objective 2: Assess and Treat a Child During an Outpatient Care Follow-On Session

Hands-On Practice: Practice conducting an outpatient care follow-on session (conduct visit with three mother-infant pairs and four children during hands-on practice)

Anthropometry

- Assess children for bilateral pitting oedema
- Measure MUAC, weight, length
- Classify nutritional status
- Record nutrition indicators on outpatient care treatment cards and RUTF ration cards

Review Progress and Determine Next Steps

- Practice reviewing information on treatment card to date and interpreting progress (Are the children improving? Are they not improving? Why?)
- Use action protocol to assess need for follow-up home visit, referral to inpatient care or discharge, and make any arrangements, if necessary
- Discuss child's progress with mother/caregiver

Discharge

- Complete the outpatient care treatment card upon discharge
- Provide appropriate information to mother/caregiver about child's discharge (e.g., when to come back with the child, danger signs)
- Give discharge ration of RUTF
- Inform mother/caregiver about linking with other services and/or programmes as appropriate (e.g., growth monitoring and promotion [GMP])

Module 4 Field Practice Learning Objective 3: Assess and Manage an At-Risk Mother and Infant Under 6 Months of Age without Medical Complications in Outpatient Care

Hands-On Practice: Practice managing at-risk mothers and infants under 6 months of age without medical complications in outpatient care (conduct visit with three mother-infant pairs)

Assess and Classify the Mother and Infant Pair

- Assess the mother-infant pair: Triage the infant; conduct anthropometry, breastfeeding, and clinical assessment
- Classify nutritional status (anthropometry)
- Assess the mother for depression, anxiety, and/or distress
- Record information in the C-MAMI treatment card

Management

- Obtain registration details from mother/caregiver and child's record
- Take medical history
- Conduct physical examination
- Conduct feeding assessment
- Decide: referral to inpatient care if a medical complication exists or admission for management in outpatient care
- Provide feeding support: Counselling for the mother, and/or family or community counselling and support
- Link with outreach worker

Activity: Feedback on Field Practice Sessions

Method: Feedback/Discussion

After each field practice, conduct a feedback session in which participants will:

- Provide feedback on strengths observed at each health facility
- Raise issues for clarification by trainers
- Identify key gaps that need more practice or observation time

MODULE FIVE: INPATIENT CARE FOR THE MANAGEMENT OF SAM WITH MEDICAL COMPLICATIONS IN THE CONTEXT OF CMAM

Module Overview

This module provides an orientation of inpatient care for the management of severe acute malnutrition (SAM) with medical complications and notes the issues that should be considered. The module briefly outlines who should be admitted to inpatient care and why. It also covers admission and discharge processes and criteria as well as the basic principles of medical treatment and nutrition rehabilitation. Emphasis is placed on ensuring a smooth referral process between outpatient care and inpatient care, in both directions.

This module is NOT a guide to setting up or managing inpatient care. For this type of guidance, a separate seven-day World Health Organisation (WHO) training course has been designed for health care managers and health care providers who will be managing children with SAM with medical complications in inpatient care. However, participants in the training of this module will partake in a half-day site visit to an inpatient care site to give them a better understanding of CMAM, the comprehensive treatment of SAM, and the referral process between the inpatient and outpatient components.

This module is intended to be used alongside the WHO guidelines for the management of severe malnutrition (1999), the WHO update on the management of SAM in infants and children (2013), and national guidelines and treatment protocols.

Inpatient care is provided in a hospital or health facility with 24-hour care for children with SAM without appetite or with medical complications until their medical condition is stabilised and the complication is resolving. Treatment then continues in outpatient care until the child recovers sufficient weight. For certain cases, inpatient care sites can provide care for the management of SAM until the child is fully recovered.

Learning Objectives	Duration	Handouts and Exercises
1. Outline the Management of Children with SAM with Medical Complications in Inpatient Care	15 minutes	Handout 5.1 Essentials of the Management of SAM With Medical Complications in Inpatient Care
2. Describe Admission and Discharge for the Management of SAM With Medical Complications in Inpatient Care	30 minutes	Handout 5.2 Admission Procedures in Inpatient Care Handout 5.3 Admission Criteria and Entry Categories for CMAM Handout 5.4 Discharge Procedures in Inpatient Care Handout 5.5 Discharge Criteria and Exit Categories for CMAM
3. Review Medical and Dietary Treatment in Inpatient Care	30 minutes	Handout 5.6 Medical and Dietary Treatment of SAM With Medical Complications
4. Practice the Referral Process Between Inpatient Care and Outpatient Care	30 minutes	Handout 5.5 Discharge Criteria and Exit Categories for CMAM Handout 5.7 Practical Implications in Discharges From

		Inpatient Care Exercise 5.1 Referral from Inpatient to Outpatient Care
Field Visit to Inpatient Care Site	½ day	Handout 5.1 Essentials for the Management of SAM With Medical Complications in Inpatient Care Handout 5.8 Inpatient Care Field Visit Checklist Local Inpatient Care Treatment Card
Wrap-Up and Module Evaluation	15 minutes	

Duration: Two hours of classroom time 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.

Materials

- Referral slips (for referral from inpatient care to outpatient care and vice versa or for referral for further medical investigation)
- Copies of a local inpatient care treatment card
- National guidelines for management of SAM
- Handouts and exercises

Advance Preparation

- Room setup, materials, flip charts, markers, masking tape
- Check national protocols for the management of SAM
- Obtain and make copies of a local inpatient care treatment card
- Download and make copies of the updated WHO job aids on the management of SAM in infants and children (*Note: Expected to be published in 2018*)
- Download and make copies of WHO's *Updates on the Management of SAM in Infants and Children* (2013) (see link in reference resources below)
- Download and make copies of WHO's *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Workers* (1999), (available at http://www.who.int/nutrition/publications/en/manage_severe_malnutrition_eng.pdf) and WHO's *Guidelines for the Inpatient Treatment of Severely Malnourished Children* (2003) (see link in reference resources below)
- Prepare sets of cards with an admission and discharge criterion written on each
- Collect or prepare referral slips
- Review relevant reference resources and further reading resources listed below.

Reference Resources

1. World Health Organisation (WHO). 2002. *Training Course on the Management of Severe Malnutrition*. Geneva: WHO. (Note: Update expected to be published in 2018)
2. WHO. 2013. *Guideline: Updates on the Management of Severe Acute Malnutrition in Infants and Children*. Available at: http://www.who.int/nutrition/publications/guidelines/updates_management_SAM_infantandchildren/en/
3. WHO. 2013. *Pocket Book of Hospital Care for Children: Guidelines for Management of Common Childhood Illnesses. 2nd Edition*. Available at: http://www.who.int/maternal_child_adolescent/documents/child_hospital_care/en/.
4. WHO. 2003. *Guidelines for the Inpatient Treatment of Severely Malnourished Children*. Geneva: WHO. Available at: <http://www.who.int/nutrition/publications/severemalnutrition/9241546093/en/>.
5. WHO. 1999. *Management of Severe Malnutrition: A Manual for Physicians and Other Senior Health Workers*. Geneva: WHO. Available at: www.who.int/nut/publications.

Further Reading Resources

1. National guidelines for CMAM
2. National guidelines for integrated management of childhood illness (IMCI)
3. Emergency Nutrition Network, International Baby Food Action Network, Terre des Hommes, United Nations High Commissioner for Refugees, UNICEF, World Food Programme, WHO. 2004. "The Young Severely Malnourished Infant" (chapter 8) in *Infant Feeding in Emergencies, Module 2, Version 1.0 for Health and Nutrition Workers in Emergency Situations*. Available at: <http://www.unhcr.org/45f6cc4e2.pdf>
4. Woodruff, B. and Duffield, A. 2000. *Adolescents: Assessment of Nutritional Status in Emergency Affected Populations*. United Nations Administrative Committee on Coordination Sub-Committee on Nutrition (ACC/SCN). Available at: https://www.unscn.org/web/archives_resources/files/adolescentnissup.pdf

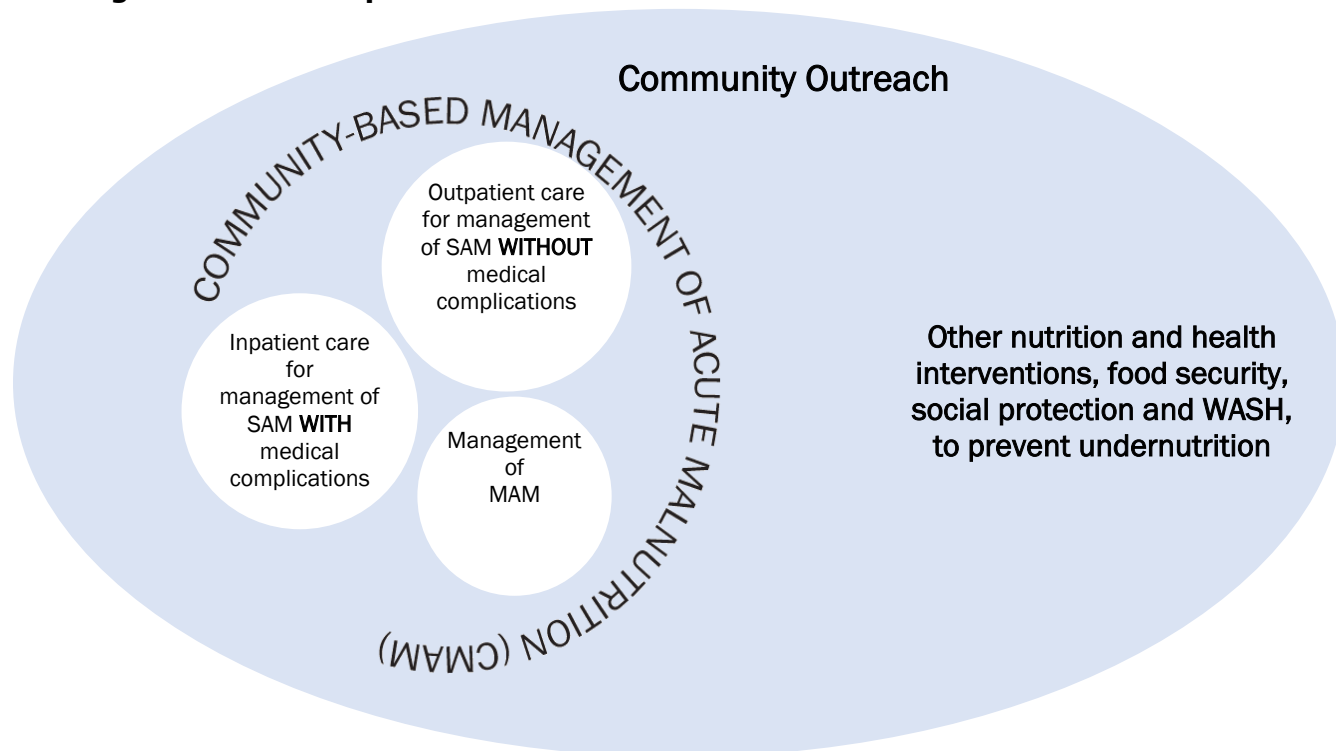
Module 5 Learning Objective 1: Outline the Management of Children With SAM With Medical Complications in Inpatient Care

TRAINER: Become familiar with **Handout 5.1 Essentials for the Management of SAM with Medical Complications in Inpatient Care.**

BRAINSTORM: INPATIENT CARE. Draw the graphic below on the flip chart and ask participants:

- Why is the inpatient care component in CMAM services smaller than the other components?
- How does the inpatient component in CMAM differ from residential or centre-based care? (Answers: only the most at-risk infants and children are admitted while others are treated in outpatient care; infants and children are released when their medical condition is stabilised and their medical complication is resolving, rather than fully recovered; children 6–59 months can take RUTF in inpatient care if they have appetite)

Figure 1. Core Components of CMAM



GROUP DISCUSSION: ESSENTIALS OF INPATIENT CARE. Direct participants to **Handout 5.1 Essentials for the Management of SAM With Medical Complications in Inpatient Care.** Ask participants to review the handout and answer the following questions. Review responses in plenary and discuss.

- Why is inpatient care such an essential component of CMAM?
- Who receives treatment in inpatient care?
- How long is treatment provided?
- How is inpatient care best implemented? Within which structures?

Module 5 Learning Objective 2: Describe Admission and Discharge for the Management of SAM With Medical Complications in Inpatient Care

TRAINER: Become familiar with **Handout 5.2** Admission Process in Inpatient Care, **Handout 5.3** Admission Criteria and Entry Categories for CMAM, **Handout 5.4** Discharge Process in Inpatient Care, and **Handout 5.5** Discharge Criteria and Exit Categories for CMAM.

PARTICIPATORY LECTURE: PROCESS FOR ADMISSION TO INPATIENT CARE. Describe to participants the bullet points outlined in the first section of **Handout 5.2: Admission Process in Inpatient Care**.

ELICITATION AND GROUP DISCUSSION: ADMISSION CRITERIA FOR INPATIENT CARE. Ask participants to name criteria for admission to inpatient care. Many of the criteria will be those encountered in **Module 4** requiring referral to inpatient care. Write responses on a flip chart. Refer participants to **Handout 5.2 Admission Process in Inpatient Care** and **Handout 5.3 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. Emphasize the differing admission criteria for infants under 6 months and briefly present admission criteria for adolescents, adults and HIV-positive adults. Discuss and fill in gaps.

PARTICIPATORY LECTURE: PROCEDURE AND CRITERIA FOR DISCHARGE IN INPATIENT CARE. Describe to participants the bullet points outlined on **Handout 5.4 Discharge Process in Inpatient Care, Section A** and **Handout 5.5 Discharge Criteria and Exit Categories for CMAM**. Answer any questions then briefly review the discharge criteria in both the text and the table on the same handout.

PRACTICE AND GROUP DISCUSSION: DETERMINE APPROPRIATENESS OF INPATIENT CARE. Refer participants to the tables in both **Handout 5.3** and **Handout 5.5**. Tell them you will give examples of children either presenting at or already in inpatient care and ask them to determine if the child should be admitted, remain in inpatient care or be discharged to outpatient care. Ask them to explain why.

Examples:

1. Infant is under 6 months and is brought to inpatient care with bilateral pitting oedema grade +.
(Answer: admit to inpatient care because of bilateral pitting oedema.)
2. Child was admitted to inpatient care with a mid-upper arm circumference (MUAC) < 115mm and no appetite but no other medical complications. Child now passes the appetite test and is clinically well and alert.
(Answer: discharge to outpatient care because appetite has returned and all other criteria met).
3. Child is brought to inpatient care with bilateral pitting oedema grade ++ and MUAC <115mm.
(Answer: admit to inpatient care with for treatment of marasmic kwashiorkor.)
4. Infant is under 6 months and was brought to inpatient care unable to breastfeed and with prolonged weight loss. Infant is now effectively gaining weight on exclusive breastfeeding, and the mother is confident with the infant's breastfeeding status.
(Answer: discharge to outpatient care to continue with follow-up and breastfeeding support.)

Child was brought to inpatient care with marasmic kwashiorkor. Bilateral pitting oedema has been reduced from grade +++ to grade +.

(Answer: keep child in inpatient care until bilateral pitting oedema resolved.)

Module 5 Learning Objective 3: Review Medical and Dietary Treatment in Inpatient Care

TRAINER: Become familiar with **Handout 5.6** Medical and Dietary Treatment of SAM With Medical Complications.

REVIEW: MEDICAL COMPLICATIONS REQUIRING INPATIENT CARE. Ask participants to name the medical complications that, coupled with SAM, would require inpatient care:

- Anorexia or no appetite, infant under 6 months unable to feed
- Intractable vomiting
- Convulsions
- Lethargy, not alert
- Unconsciousness
- Lower respiratory tract infection
- High fever
- Dehydration
- Persistent diarrhoea
- Severe anaemia
- Hypoglycaemia
- Hypothermia
- Eye signs of vitamin A deficiency
- Skin lesions

Additional complications for infants under 6 months:

- Cleft lip or palate
- Abnormal tone or posture
- Excessively open or clenched jaw
- Unable to support head or control trunk
- When held, infant's arms and legs fall to the sides
- Infant's body still, hard to move
- Not willing or able to suckle at the breast or feed by cup or bottle
- Coughing and eye tearing (signs of unsafe swallowing) while feeding

READING AND GROUP DISCUSSION: MEDICAL AND DIETARY TREATMENT IN INPATIENT CARE. Explain to participants that the medical and dietary treatment of SAM in inpatient care follows the WHO treatment protocol for the treatment of SAM until the medical condition is stabilised, the medical complication is resolving and the child is referred to outpatient care.

Refer participants to **Handout 5.6 Medical and Dietary Treatment of SAM With Medical Complications**. In plenary, discuss the figure showing stabilisation and rehabilitation phases. Note that after four to seven days of treatment, the medical condition should be stabilised and the medical complication resolving. Review the handout together and answer any questions regarding nutrition rehabilitation for infants under 6 months and children 6–59 months.

Refer participants to the WHO updates on the management of SAM in infants and children (2013), *WHO Guidelines for the Inpatient Treatment of Severely Malnourished Children* (2003), and other guidance listed in the **Reference Resources and Further Reading Resources Section** of this module.

Give each participant a copy of a local inpatient treatment card and explain the information that can be found on it:

- Personal information: names and locations of mothers/caregivers to allow for follow-up home visits after discharge
- Results of daily bilateral pitting oedema checks
- Anthropometry: MUAC, weight, and height/length recorded on admission; weight is also measured daily
- Clinical data/findings: results of daily medical assessments (because deterioration can occur quickly, it is essential to record medical findings and other information to make a correct diagnosis and provide timely treatment)
- Medicines: the medicines given and when they were given are recorded (Note: medical staff should directly observe the medicine being taken, the child's response to the medicine and the outcome)
- Feeding information: type and proportion of the therapeutic food the child consumes and any instances of vomiting

Module 5 Learning Objective 4: Practice the Referral Process Between Inpatient Care and Outpatient Care

TRAINER: Become familiar with **Handout 5.5** Discharge Criteria and Exit Categories for CMAM, **Handout 5.7** Practical Implications in Discharges from Inpatient Care, and **Exercise 5.1** Referral from Inpatient to Outpatient Care.

REVIEW: REFERRALS FROM INPATIENT CARE. In plenary, ask participants to name discharge criteria that would indicate a discharge from inpatient care to outpatient care. If participants have difficulty responding, remind them to refer to **Handout 5.5 Discharge Criteria and Exit Categories for At-Risk Mothers and Infants Under 6 Months and Children 6–59 Months**.

PARTICIPATORY LECTURE: REFERRALS BETWEEN INPATIENT AND OUTPATIENT CARE.

Explain to participants that the main focus of these modules is on outpatient care, which includes referrals from inpatient to outpatient care. However, there are several cases where patients will be discharged to other settings. Outline to participants the key points regarding discharges from inpatient care to tertiary care and discharges that exit CMAM services as found in **Handout 5.7 Practical Implications in Discharges from Inpatient Care**.

Remind participants that an effective referral system between inpatient care and outpatient care is essential for the smooth functioning of CMAM services. Note that it is helpful for inpatient care staff to visit outpatient care sites and vice versa. Outline the key points in **Handout 5.7**. Ask participants if they have any other key points to add.

BRAINSTORM: REFERRALS FROM INPATIENT TO OUTPATIENT CARE. Ask participants to think of key actions that should accompany the discharge of patients from inpatient care to outpatient care. Write responses on a flip chart. Fill in the gap in responses with the key points outlined in **Handout 5.7, Section D**.

PRACTICE: REFERRALS FROM INPATIENT TO OUTPATIENT CARE. Ask participants to form pairs. Refer them to **Exercise 5.1 Referral from Inpatient to Outpatient Care**. Write the following details of a child on flip chart and ask pairs to fill out the referral card from inpatient to outpatient care. (Note: use a locally appropriate name for the child and the name of a local community.) Move within and among the pairs and answer questions. Discuss what changes occurred in the child's health to permit referral to outpatient care and fill in gaps.

Admission data:

Date of admission: 09/Feb/2018
 Inpatient site: XXX
 Registration number: 113/OC/ZAL
 Age: 26 months
 Sex: Female
 Height/length: 78.5 cm
 Weight: 7.2 kg
 Bilateral pitting oedema: ++
 MUAC: 117 mm
 WFH/WFL: < -3 z-score

Discharge data:

- Date of discharge: 15/Feb/2018
 - Weight: 7.0 kg

Bilateral pitting oedema: none
 MUAC: 118 mm
 WFH/WFL: < -3 z-score

Treatment: F75, some RUTF

Amoxicillin: 125 mg (5 ml) 3x/day for 7 days
 Artesunate: Days 1-3, 1 tablet per day

Exercise 5.1 Referral from Inpatient to Outpatient Care (with answers)

Name of child (local name)		Community (local name)	
Age 26 months		Sex F	
Date of admission 09/Feb/18			
ADMISSION DATA Weight 7.2 kg MUAC 117 mm Height 78.5 cm WFH/WFL < -3 z-score		Site # Referral to Outpatient Care Registration No 113/OC/ZAL	
Bilateral pitting oedema (circle) NONE + ++ +++			
INFANTS UNDER 6 MONTHS OF AGE Is infant exclusively breastfeeding? (circle) Y N If not breastfeeding, is infant feeding well and exclusively on replacement feed? (circle) Y N			
Date of referral 15/Feb/18 Criteria for referral Weight: 7.0 kg Bilateral Pitting Oedema: None MUAC: 118 mm WFH: < -3 z-score			
Treatment given F75, some RUTF Amoxicillin: 125mg (5 ml) 3x/day for 7 days Artesunate: Days 1-3, 1 tablet per day			
Comments			

Module 5 Wrap-Up and Module Evaluation

Suggested Method: Review learning objectives and complete evaluation form.

- Review the learning objectives of the module. In this module you have:
 1. Outlined the inpatient care component of CMAM
 2. Identified admission and discharge criteria for inpatient care for the management of SAM with medical complications
 3. Reviewed medical and dietary treatment used in inpatient care
 4. Practiced the referral process between inpatient care and outpatient care
- Ask for any questions and feedback on the module.
- Ask the following review questions:
 - What are the main reasons for referring infants and children to inpatient care?
 - About what percentage of the total caseload of children with SAM will require inpatient care?
 - About what percentage of the total caseload of infants will require inpatient care?
 - How long (on average) is a child with SAM with medical complications expected to stay in inpatient care before continuing on to treatment in outpatient care?
 - What are the discharge criteria from inpatient care to outpatient care (i.e. how do you know when a child with SAM with complication is ready to go to outpatient care)?
- Let participants know that they will have an opportunity to observe procedures and discuss them with staff during the inpatient care field visit.
- Ask participants to fill out the module evaluation form.

Module 5 Inpatient Care Field Visit

Overview

- Ideally, a maximum of five participants should be at each inpatient care site on a given day to allow participants enough time to observe and interact directly. Coordinate with as many inpatient care sites as necessary to keep the number of participants at five or fewer. Ensure that the inpatient care facilities where the field visit will take place provide 24-hour care and are fully equipped to manage severe acute malnutrition according to the WHO treatment protocol.
- Pair participants with someone who speaks both the participants' language and the local language.
- Introduce participants to the head of the ward or other person in charge.

Learning Objectives	Handouts to Take to Inpatient Care Field Visit
Review Admission, Treatment, and Discharge Procedures for Inpatient Care	Handout 5.1 Essentials for the Management of SAM With Medical Complications in Inpatient Care
Observe and Discuss Admission, Treatment and Discharge Procedures for Inpatient Care	Handout 5.8 Inpatient Care Field Visit Checklist Local Inpatient Care Treatment Card

Module 5 FIELD VISIT LEARNING OBJECTIVE 1: REVIEW ADMISSION, TREATMENT, AND DISCHARGE PROCEDURES FOR INPATIENT CARE

READING THE EVENING BEFORE: Admission and Discharge Procedures for Inpatient Care

In preparation for the inpatient care field visit, ask participants to review **Handout 5.1 Essentials for the Management of SAM With Medical Complications in Inpatient Care**.

Module 5 FIELD VISIT LEARNING OBJECTIVE 2: OBSERVE AND DISCUSS ADMISSION, TREATMENT, AND DISCHARGE PROCEDURES IN INPATIENT CARE

Trainer: Become familiar with **Handout 5.8 Inpatient Care Field Visit Checklist** and direct participants to bring this with them to the field visit.

During the field visit, observe the following:

- The patient registration process
- Admission and discharge criteria
- Daily nutrition assessment and monitoring
- Daily medical assessment, monitoring, and medical treatment
- Food preparation and storage
- Feeding and feeding routines

- Re-establishing breastfeeding in infants under 6 months of age (supplementary suckling technique)
- Recording on the individual child's inpatient care treatment card (e.g., the information collected, the child's progress)
- The flow of activities
- The referral process

During the field visit, ask the staff:

- How the referral between inpatient care and outpatient care is working
- How the numbers/types of infants and children in inpatient care now compare with the numbers/types before outpatient care was available
- What the challenges to managing their workload are

Activity: Feedback On Inpatient Care Field Visit Sessions

Method: Feedback/Discussion

After the inpatient care field visit, conduct a feedback session in which participants will:

- Provide feedback on strengths they observed at the health facility with inpatient care
- Raise issues for clarification by trainers
- Identify key gaps that require more observation time at the health facilities with inpatient care

MODULE SIX: 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) as an intervention for the management of MAM in emergencies. The module addresses who is admitted and briefly describes the types of medical treatment and nutrition rehabilitation that are provided. The module also describes how the management of MAM 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 and the *Management of Acute Malnutrition: A Decision Tool for Emergencies*, available at <http://nutritioncluster.net/?get=002086%7C2014/07/MAM-Decision-Tool-final-June-2014-corrected.pdf>.

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

Notes:

Programmes and services to manage MAM are evolving with ongoing research on effectiveness of treatment options, approaches, and methods to simplify and improve impact at the individual and population levels (see Reference Resources and Further Reading Resources below for more details). It is important that MAM services or programme design and approaches are tailored based on the context, underlying causes of malnutrition, and resources available. The MAM decision tool for emergencies noted above can be used to help identify the most appropriate and feasible programme to address MAM in a particular context.

Programmes and services to manage MAM should not be implemented in isolation. They should be part of a broader multisector nutrition programme including infant and young child feeding (IYCF) support in emergencies; livelihoods; food security; health; and water, sanitation, and hygiene (WASH) interventions.

In exceptional emergency settings where global acute malnutrition (GAM) is high (above 15 percent in the absence of aggravating factors or above 10 percent in the presence of aggravating factors) and there is no SFP and/or outpatient care for the management of severe acute malnutrition (SAM) without medical complications, guidance on the use of combined protocol for SAM and MAM treatment is provided (**see Handout 6.1 Management of Moderate Acute Malnutrition [MAM] in Emergencies**). Because research is ongoing on the combined protocol for SAM and MAM, guidance provided in this module is a temporary option for emergency settings. The guidance should be seen as a complement to national guidelines to support the treatment of children until full services/programmes are set up.

Learning Objectives	Duration	Handouts and Exercises
1. Describe Some Types of Programmes to Manage MAM and How this Component Fits Within CMAM	40 minutes	Handout 6.1 Management of Moderate Acute Malnutrition (MAM) in Emergencies Handout 6.2 Principles of Supplementary Feeding for the Management of MAM
2. Describe Admission to and Discharge from the Management of MAM	25 minutes	Handout 6.3 Admission Procedures in Supplementary Feeding Handout 6.4 Admission Criteria and Entry Categories CMAM Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.6 Classification of Acute Malnutrition for CMAM Handout 6.7 Supplementary Feeding Treatment Card Cards
3. Discuss Medical Treatment and Nutrition Rehabilitation for the management of MAM	20 minutes	Handout 6.8 Medical Treatment Protocols for Management of MAM Handout 6.9 Nutritional Rehabilitation Protocols for the Management of MAM Handout 6.10 Food Commodities Used for the Management of Acute Malnutrition Handout 6.11 Supplementary Feeding Ration Card
4. Practice Making Referrals from Supplementary Feeding to Outpatient or Inpatient Care	20 minutes	Handout 6.12 Referral Slip Exercise 6.1 Referrals in CMAM
5. Supplementary Feeding Field Visit	½ day	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
Wrap-Up and Module Evaluation	15 minutes	

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.

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 6.12 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
- Review relevant reference resources and further reading resources listed below

Reference Resources

1. Global Nutrition Cluster. 2017. *Moderate Acute Malnutrition: A Decision Tool for Emergencies*. Available at: <http://nutritioncluster.net/?get=002086%7C2014/07/MAM-Decision-Tool-final-June-2014-corrected.pdf>.
2. The Sphere Project. 2017 revision. Humanitarian Charter and Minimum Standards in Disaster Response.
3. Global Nutrition Cluster, Emergency Nutrition Network (ENN) et al. 2010. *Harmonised Training Package – Version 2. Module 12. Management of Moderate Acute Malnutrition*. Available at: <https://www.ennonline.net/htpv2module12>.
4. World Food Programme (WFP) and United Nations High Commissioner for Refugees (UNHCR). 2011. *Guidelines for Selective Feeding: The Management of Malnutrition in Emergencies*. Available at: <https://cms.emergency.unhcr.org/documents/11982/32558/Guidelines+for+selective+feeding.+The+management+of+malnutrition+in+emergencies/117faa46-7fa4-446b-8104-10f5a4c763e1>.
5. ENN. 2009. *Integration of IYCF Support into CMAM*. Available at: <https://www.ennonline.net/integrationiycfintocmam>.
6. UNHCR/UNICEF/WFP/WHO. 2003. *Food and Nutrition Needs in Emergencies*. <http://apps.who.int/iris/bitstream/handle/10665/68660/a83743.pdf;jsessionid=807AFEFC35FFF1AA581AFC85A0C4C15?sequence=1>.

Further Reading Resources

1. Bailey, J. et.al. 2016. *Combined Protocol for SAM/MAM Treatment: The ComPAS study*. Available at: <https://www.ennonline.net/fex/53/thecompasstudy>.
2. Maust, A. et.al. 2015. "Severe and Moderate Acute Malnutrition Can Be Successfully Managed with an Integrated Protocol in Sierra Leone." *Journal of Nutrition*. Available at: <https://pdfs.semanticscholar.org/d5c2/e4bed4e18d6cdfa6d6b3b31f69d0ee347d54.pdf>.
3. USAID. 2016. *Multi-Sectoral Nutrition Strategy—Technical Guidance Brief: Community-Based Management of Acute Malnutrition (CMAM)*. Available at:

<https://www.usaid.gov/sites/default/files/documents/1864/CMAM-technical-guidance-brief-508-revFeb2017.pdf>.

4. WHO. 2012. *Technical Note: Supplementary Foods for the Management of Moderate Acute Malnutrition in Infants and Children 6–59 Months of Age*. Available at:
http://www.who.int/nutrition/publications/moderate_malnutrition/9789241504423/en/.

Module 6 Learning Objective 1: Describe Some Types of Programmes to Manage MAM and How This Component Fits Within CMAM

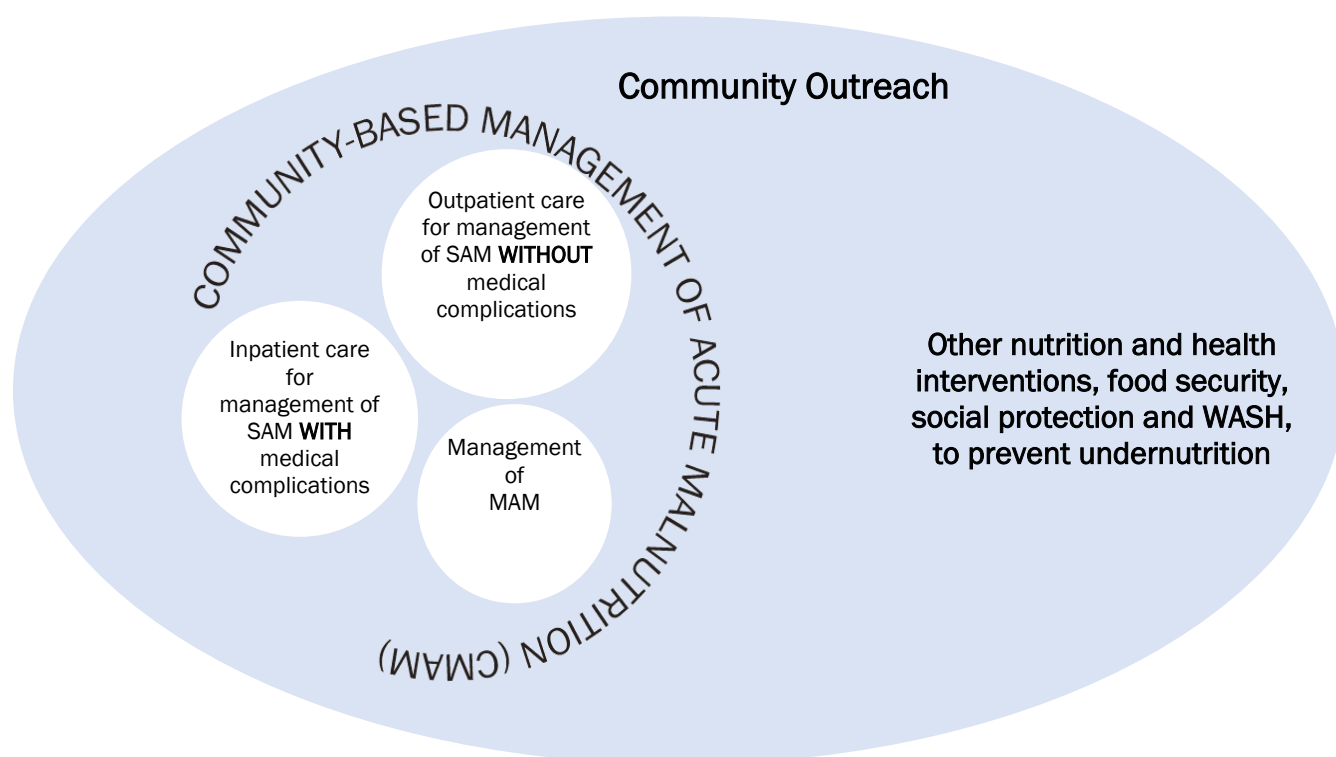
TRAINER: Become familiar with **Handout 6.1 Management of Moderate Acute Malnutrition (MAM) in Emergencies** and **Handout 6.2 Principles of Supplementary Feeding for the Management of MAM**.

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



PARTICIPATORY LECTURE: MANAGEMENT OF MAM—PURPOSE AND TYPES OF SUPPLEMENTARY 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 Management of Moderate Acute Malnutrition (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.

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. Emphasize the following key points:

- 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 supporting the different components of CMAM.
- Bilateral pitting oedema, 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)/weight-for-length (WFL) is used, height/length is measured every month.

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 only the management of SAM (inpatient care and outpatient care) is part of routine health care in a non-emergency situation or in a food-secure environment. 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.

Explain **Point 1** from **Handout 6.1, Section D**. Ask participants how rations can be used to ensure the same goals. Tell participants that they will review additional options for exceptional CMAM programming in emergencies later on. 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.

PARTICIPATORY LECTURE: HANDOUT 6.1. MANAGEMENT OF MODERATE ACUTE MALNUTRITION (MAM) IN EMERGENCIES, SECTION E.

Explain to participants that there are options for treatment of acute malnutrition in the absence of an SFP and/or outpatient care for the management of SAM without medical complications. Explain that the three options are described further in Section E of **Handout 6.1**. Clarify that the options provided are temporary and are meant to be used as a gap-filling measure until both outpatient care and SFP are set up. Point out the evidence on the use of the combined SAM and MAM protocol in Sierra Leone and explain that additional studies are ongoing.

Refer the participants to **Table 1: Options for Exceptional CMAM Programming in Emergencies** in **Handout 6.1**. Review with the participants the admission and discharge criteria, organisation, RUTF or RUSF, the systematic treatment, and the discharge criteria for recommendations A, B, and C.

Module 6 Learning Objective 2: Describe Admission to and Discharge from the Management of Moderate Acute Malnutrition (MAM)

TRAINER: 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** Classification of Acute Malnutrition for CMAM 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 women and lactating women (with infants under 6 months) and also note 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** Classification of Acute Malnutrition for CMAM 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.

Module 6 Learning Objective 3: Discuss Medical Treatment and Nutrition Rehabilitation for the Management of MAM

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

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

READING AND DISCUSSION: NUTRITION REHABILITATION. Ask participants to quietly review **Handout 6.9 Nutrition Rehabilitation Protocols for the Management of MAM** and **Handout 6.10 Food Commodities Used for the Management of Acute Malnutrition**. 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.

Module 6 Learning Objective 4: Practice Making Referrals from Supplementary Feeding to Outpatient or Inpatient Care

TRAINER: 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, a girl age 18 months, was admitted to the SFP with a MUAC of 117 mm, weight of 10 kg and no medical complications. At the second visit, the child had developed bilateral pitting oedema on the feet (bilateral oedema +). What action is needed?

Answer: Child A should be referred to outpatient care.

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, a boy age 36 months, was referred to the SFP by the outreach worker with a MUAC of 118 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 Organisation (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.

Child C

Question: Child C, a boy age 8 months, was admitted to the SFP with a MUAC of 116 mm. After four weeks (third weighing), the child has lost weight and MUAC is now 114. The child has diarrhoea 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.

Module 6 **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 programmes for the management of MAM and how they are relevant to CMAM
 2. Identified admission and discharge criteria for the management of MAM
 3. Discussed medical treatment and nutrition rehabilitation for the management of MAM
 4. Practiced making referrals from supplementary 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.

Module 6 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.

Learning Objectives	Handouts to Take to the Supplementary Feeding Field Visit
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
Observe and Discuss Admission, Treatment, Discharge and Referral Procedures for Supplementary Feeding	Handout 6.5 Discharge Criteria and Exit Categories for CMAM Handout 6.13 Supplementary Feeding Field Visit Checklist

Module 6 FIELD VISIT LEARNING OBJECTIVE 1: REVIEW ADMISSION, TREATMENT AND DISCHARGE PROCEDURES FOR SUPPLEMENTARY FEEDING

READ 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.

Module 6 FIELD VISIT LEARNING OBJECTIVE 2: OBSERVE AND DISCUSS ADMISSION, TREATMENT, DISCHARGE AND REFERRAL PROCEDURES FOR SUPPLEMENTARY FEEDING

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

During the field visit, observe the following:

- The patient admission criteria and procedure
- Discharge criteria and procedure
- Recording on the individual child's supplementary feeding treatment card (e.g., the information collected, the child's progress)
- The flow of activities
- The referral process
- Supplementary food rations provided to the patients

During the field visit, ask the staff:

- How they ensure linkage between the supplementary feeding programme (SFP), outpatient care and other nutrition interventions
- How they ensure caregivers know how to use or prepare and give the supplementary food if a fortified blended food (FBF) is used
- What kind of health/nutrition education and counselling they offer
- Where their supplementary food commodities come from and how they order and store them

ACTIVITY: FEEDBACK ON SUPPLEMENTARY FEEDING FIELD VISIT SESSIONS

METHOD: Feedback/Discussion

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

MODULE SEVEN: PLANNING CMAM SERVICES AT THE DISTRICT LEVEL

Module Overview

This module introduces participants to the issues and considerations in the design and planning of a community-based management of acute malnutrition (CMAM) service or programme. This module focuses on the different steps used to plan a CMAM service or programme. It aims to provide participants with the tools and conceptual frameworks for thinking through the planning stages according to the context. This includes thinking through who should be involved in planning; conducting a situation analysis to define the needs; exploring the operational and policy-level opportunities and constraints; assessing capacity to implement the programme; determining a service or programme design with overall goals, specific objectives, and suitable indicators to measure programme impact and effectiveness; and translating these into an action plan. The module takes into consideration the World Health Organisation (WHO) “building blocks” for health system strengthening, and a system strengthening approach to integrating CMAM into existing health care system

Although budgeting is an important component of planning for CMAM services, this module does not provide specific guidance on budgeting for CMAM services. A Microsoft Excel-based CMAM costing tool designed to help planners and managers at district level plan and cost for CMAM services can be found at: <https://www.fantaproject.org/tools/cmam-costing-tool>.

Participants will work in groups of five or six for the majority of this module, grouped by country, province, or district, with those of similar origins placed together. Ideally, each group should work on designing and planning CMAM services for its own area. If this is not possible or not appropriate, groups should select an appropriate context and geographical or administrative coverage area for which to design and plan CMAM services.

Participants will stay in the same working group for all the module’s exercises. At the end of the session, participants will have developed an outline of a design and plan for CMAM in their respective areas.

Participants will practice using the concepts and frameworks in this module using a case study based on a real example or using their own district or a district in their country.

Participants should be asked in advance to bring relevant information for CMAM planning in their country, province, or district, and to read **Case Study: Situation Analysis, Ghana** before the training session.

Learning Objectives	Duration	Handouts and Exercises
1. Describe Key Elements of CMAM and Prepare for the Planning Process	30 minutes	Handout 7.1 Key Elements of CMAM Framework Aligned with the WHO Health Systems Strengthening (HSS) Building Blocks
2. Identify Key Components of a Situation Analysis and Conduct a Basic Situation Analysis	2 hours	Handout 7.2 Case Study: Situation Analysis, Ghana Handout 7.3 Assessing the Nutrition Situation Handout 7.4 Mapping Matrices Handout 7.5 Capacity Grid for CMAM at the District Level Handout 7.6 SWOT Analysis for CMAM Handout 7.7 Example Capacity Grids for Outpatient Care at the Health Facility Level and for CMAM at the National Level

3. Develop a Logical Framework for CMAM	1½ hours	Handout 7.1 Key Elements of CMAM Framework Handout 7.8 Using a Logical Framework for CMAM Handout 7.9 Example Logical Framework for CMAM
4. Develop an Action Plan for CMAM	2½ hours	Handout 7.1 Key Elements of CMAM Framework Handout 7.10 Calculating Estimated SAM and MAM Cases Handout 7.11 Staff Needs, Roles and Responsibilities Handout 7.12 Calculating Estimated RUTF Needs Handout 7.13 Overview of Resources for CMAM Handout 7.14 Matrix for Action Planning
5. Plan for Special Cases: Transitioning and Contingencies	1¼ hours	Handout 7.15 Matrix for Transition Planning of CMAM Handout 7.16 Guidance for Contingency Planning for CMAM
Wrap-Up and Module Evaluation	15 minutes	

Module Duration: 8 hours

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.

Materials

- Handouts
- Case study
- Copies of Handout 7.4 Mapping Matrices, Matrix 2 and Handout 7.6 SWOT Analysis for CMAM to distribute
- Nutrition Cluster SAM and MAM caseload calculation tool
- Flip charts
- Markers
- Masking tape

Advance Preparation

- Room setup, materials
- Remind participants that they must bring information on the health, nutrition and undernutrition preventive and curative services in their district, as well as nutrition surveys and information on the context of their health system, how it works and whether it is centralised. Bring information sources in case participants do not bring theirs.
- Ask participants to read Handout 7.2 Case Study: Situation Analysis, Ghana.
- Download the Nutrition Cluster SAM and MAM caseload calculation tool (see link in reference resources below)
- Review relevant reference resources and further reading resources below.

Reference Resources

1. Action Contre la Faim (ACF). 2017. *Health System Strengthening: From Diagnosis to Planning Guide*. Available at: <http://nutritioncluster.net/wp-content/uploads/sites/4/2017/02/ACF-HSS-GUIDE-2017-LD.pdf>.
2. Concern Worldwide. 2016. *CMAM Surge Approach: Operational Guide*. Available at: https://www.concern.net/sites/default/files/media/resource/cmam_surge_operational_guide_0.pdf.
3. Global Nutrition Cluster. 2015. *CMAM Caseload Calculations (SAM and MAM Treatment)*. Available at: <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwjw8eW41YXbAhXRm-AKHcSVDJQQFgg3MAI&url=http%3A%2F%2Fnutritioncluster.net%2Fwp-content%2Fuploads%2Fsites%2F4%2F2016%2F12%2FNC-Caseload-target-and-supplies-calculator.xlsx&usq=AOvVaw0hOL5uVgL7fxU6FW8Y2Y7j>.
4. World Food Programme (WFP) and United Nations High Commissioner for Refugees (UNHCR). 2011. *Guidelines for Selective Feeding: The Management of Malnutrition in Emergencies*. Available at: <https://cms.emergency.unhcr.org/documents/11982/32558/Guidelines+for+selective+feeding.+The+management+of+malnutrition+in+emergencies/117faa46-7fa4-446b-8104-10f5a4c763e1>.
5. World Health Organisation (WHO). 2010. *Monitoring the Building Blocks of Health Systems: A Handbook of Indicators and Their Measurement Strategies*. Available at: <http://apps.who.int/iris/bitstream/handle/10665/258734/9789241564052-eng.pdf?sequence=1>.
6. WHO. 2007. Everybody's Business—Strengthening Health Systems to Improve Health Outcomes: WHO's Framework for Action. Available at: http://www.who.int/healthsystems/strategy/everybodys_business.pdf.
7. Valid International. 2006. *Community-based Therapeutic Care (CTC): A Field Manual*. Oxford: Valid International. Available at: <https://www.fantaproject.org/sites/default/files/resources/CTC-Field-Manual-Oct2006-508.pdf>.

Further Reading Resources

1. Bulti, A. et al. 2017. "Improving Estimates of the Burden of Severe Acute Malnutrition and Predictions of Caseload for Programs Treating Severe Acute Malnutrition: Experiences from Nigeria." *Archives of Public Health*. 75:66. DOI 10.1186/s13690-017-0234-4. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5679511/>.
2. Deconinck, H. et al. 2016. "Challenges of Estimating the Annual Caseload of Severe Acute Malnutrition: The Case of Niger." *PLoS ONE*. 11(9): e0162534. doi:10.1371/journal.pone.0162534. Available at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0162534>.
3. Yourchuck, A.; Tumwine, K.; Namugumya, B.; Morla, J.; Doledec, D.; and Mupere, E. 2014. *Health Systems Performance for IMAM/NACS in Uganda: Considerations for Delivery of Nutrition Services*. Washington, DC: FHI 360/Food and Nutrition Technical Assistance III Project (FANTA). Available at: <https://www.fantaproject.org/sites/default/files/resources/Uganda-HSS-Report-Sep2014.pdf>.
4. FANTA. 2012. *CMAM Costing Tool*. Washington, DC: FHI 360/FANTA. Available at: <https://www.fantaproject.org/tools/cmam-costing-tool>.
5. Standardised Monitoring and Assessments for Relief and Transition (SMART). *Measuring Mortality, Nutritional Status and Food Security in Crisis Situations (interpretation)*. <https://smartmethodology.org/>.

Module 7 Learning Objective 1: Describe Key Elements of CMAM and Prepare for the Planning Process

TRAINER: Become familiar with **Handout 7.1 Key Elements of CMAM Framework Aligned with the Health Systems Strengthening (HSS) Building Blocks**.

PARTICIPATORY LECTURE: WORLD HEALTH ORGANISATION (WHO) HSS BUILDING BLOCKS. Explain the six “building blocks” by which health system functions are organised. Explain that if all the building blocks are performing their functions effectively, this would lead to improved access, coverage, quality, and safety of health services. Note that when planning CMAM activities, managers and health care providers should always aim to strengthen the health system’s functions. Review each building block, highlighting the core desirable attributes as described below:

1. **Leadership and governance** should ensure that strategic policy frameworks exist and are combined with effective oversight, regulations, system design, and accountability.
2. **Workforce** should be responsive, fair, and efficient, given available resources and circumstances. There should be sufficient numbers of staff that are fairly distributed, competent, responsive, and productive.
3. **Financing** should be sufficient to ensure that health services are accessible and that people can use or pay for them without risk of financial catastrophe or impoverishment.
4. **Information systems** should ensure the production, analysis, dissemination, and use of reliable and timely information on health system performance, health determinants, and health status.
5. **Medical products, vaccines, and technologies** should be accessible to target communities; should be safe, efficacious, and cost-effective; and should be used properly and in a cost-effective way
6. **Service delivery** should be effective and safe and should provide quality health interventions to those who need them, when and where needed, with minimum waste of resources.

BUZZ GROUP: KEY ELEMENTS OF CMAM ALIGNED WITH THE HSS BUILDING BLOCKS. Refer participants to **Handout 7.1 Key Elements of CMAM Framework Aligned with the HSS Building Blocks**. Ask them to look over the list with a partner and to quickly identify which key elements stand out as particularly relevant for their districts. Ask a few pairs to comment. Discuss briefly.

READING AND GROUP DISCUSSION: USING THE KEY ELEMENTS OF CMAM ALIGNED WITH THE HSS BUILDING BLOCKS. Refer participants to the key elements of CMAM. Discuss the framework’s many uses, such as capacity assessment, design, planning, evaluation, and review of integration. Explain that this module looks at the planning process through this framework wherever possible.

PARTICIPATORY LECTURE: OVERVIEW OF CMAM PLANNING PROCESS. Explain the key steps this module addresses in the CMAM planning process and write on a flip chart:

1. Situation analysis (to determine the needs), which consists of:
 - a. Assessing the nutrition situation
 - b. Mapping health and nutrition systems
 - c. Assessing the capacity for CMAM at a district or health facility level
 - d. Analysing strengths, weaknesses, opportunities and threats

2. Logical framework
3. Action plan (implementation plan)
4. Planning for special cases

BRAINSTORM: IDENTIFYING WHOM TO INVOLVE IN CMAM PLANNING. Remind participants of the work they did in **Module 3: Community Outreach** to think through whom they need to involve in planning. Given the main areas of activity identified above, ask participants who they think should be involved. Possible answers could include:

- The team coordinating and supervising the intervention
- District health officials
- Health care providers
- Community members; social, political and religious leaders; traditional healers; traditional birth attendants; teachers; mothers, fathers and caregivers (such as grandmothers)
- Community groups, women's groups, farmers associations
- Nongovernmental organisations (NGOs) and community-based organisations (CBOs) working in health and nutrition interventions in the district

Note: Community leaders and members, and mothers/caregivers must be involved in the community outreach planning process to help planners gain a better understanding of causes of undernutrition, how the community views and treats undernutrition, and barriers to access and health service uptake

Module 7 Learning Objective 2: Identify Key Components of a Situation Analysis and Conduct a Basic Situation Analysis

TRAINER: Review **Handout 7.2** Case Study: Situation Analysis, Ghana and become familiar with **Handout 7.3** Assessing the Nutrition Situation, **Handout 7.4** Mapping Matrices, **Handout 7.5** Capacity Grid for CMAM at the District Level, **Handout 7.6** SWOT Analysis for CMAM and **Handout 7.7** Example Capacity Grids for Outpatient Care at the Health Facility Level and for CMAM at the National Level.

BRAINSTORM: COMPONENTS OF THE SITUATION ANALYSIS. Draw a grid with five columns. The column headings will reflect the five components of a situation analysis (below), but do not identify the column headings at this point:

1. Assessing the nutrition situation (including causal framework of undernutrition [UNICEF])
2. Mapping health and nutrition systems, initiatives and partners at the district and facility levels
3. Assessing the capacity for CMAM
4. Conducting a strengths, weaknesses, opportunities and threats (SWOT) analysis for CMAM
5. Conclusion: Determining needs

Ask participants what information is needed to prepare to plan CMAM services. Provide a few examples to get the conversation started, if necessary. Examples could include prevalence of wasting in their district, how many outpatient care facilities are in the district, whether they provide services for severe acute malnutrition (SAM), etc. Write their responses in the appropriate column. Discuss and ask if participants can think of what the items in each column have in common. Write the intended name for each column and point out that these are the five key components of a situation analysis. Put the flip chart up on the wall to refer to as the Learning Objective progresses.

READING AND REVIEW: UNDERSTANDING NUTRITION SITUATION ASSESSMENTS. Refer participants to **Handout 7.3** Assessing the Nutrition Situation and ask them to read it quietly. Ask groups if they have any additions for Column 1 on the situation analysis grid produced earlier in this Learning Objective. Discuss why they would need that information and where they can find it. Write the following sources of information on the health and nutritional status of populations on the flip chart, and ask participants if they have any sources to add to the list:

- Demographic and Health Surveys (DHS), see <https://dhsprogram.com/>
- Multiple Indicator Cluster Surveys (MICS), see <http://mics.unicef.org/>
- UN Standing Committee on Nutrition, Nutrition Information in Crisis Situations (NICS), Nutrition Survey Results Database.
- Complex Emergency database on the impact of complex emergencies (CE-DAT).

WORKING GROUPS: PRACTICE ASSESSING A NUTRITION SITUATION. Divide participants into working groups of five or six people by district or region and explain that they will remain in these groups for much of the module's duration. Ask groups to review the nutrition survey information that they have brought for their country/province/district and create a chart of key information on the flip chart. The chart should follow the format of the example chart below (trainer may post a blank example chart), but participants should feel free to add any additional information they think would be helpful.

Ask one group to present its results in plenary, summarising the nutrition situation in its country, province or district, and pointing out any areas of concern or focus.

Example Nutrition Situation Chart

Source	Age Group	Date	Geographic Area	Crude Death Rate (CRD) deaths/10,000/day	0 to 5 Death Rate (0-5DR) deaths under five/10,000 day	Prevalence (%)			Caseload (%)		Prevalence (%)	
						Wasting WFH < -2 z-score	Severe wasting WFH < -3 z-score	Bilateral Pitting Oedema	MUAC <125	MUAC <110	Stunting HFA <-2 z-score	Under-weight WFA <-2
DHS	0-59 mos	Sept 2006	Eastern Region	NA	NA	8.4	1.2	NA	NA	NA	35.3	22
MICS	0-59 mos	Aug 2007	Eastern Region	NA	NA	6.2	0.9	NA	NA	NA	36	25
District health office	0-36 mos	Dec 2007	District B, Sub-Region A, Eastern Region	NA	NA	6.0	0.8	NA	6.7	NA	37	23
MOH/ NGO nutrition survey X	6-59 mos	Dec 2007	District C, Sub-Region B, Eastern Region	NA	NA	5.8	0.6	NA	6	NA	30	20
MOH/N GO nutrition survey Y	6-59 mos	Mar 2008	District C, Sub-Region B, Eastern Region	0.21	0.54	7.1	1.0	0.3	6.5	NA	34	24

PARTICIPATORY LECTURE: MAPPING HEALTH AND NUTRITION SERVICES. Explain to participants that it is important to know and map how the district health system is structured, what other services and initiatives exist and who is doing what, where and how. CMAM services should complement and link with existing programs. Provide examples:

- What are the health facilities' structures, catchment areas, staffing and health outreach systems?
- What health and nutrition services and initiatives are provided or ongoing?
- What formal and informal community-based systems exist? (Refer to **Module Three: Community Outreach.**)
- Is therapeutic feeding for the management of SAM in children available, and who is responsible for these programmes?
- Are NGOs, the government or other organisations (e.g., World Food Programme [WFP]) running supplementary feeding services or programmes for the management of moderate acute malnutrition (MAM) in children?
- Are services or programmes for the prevention of undernutrition in place?
- Are there any general ration or safety net programmes, and who is running these programmes?

WORKING GROUPS: PRACTICE MAPPING HEALTH AND NUTRITION SERVICES. Refer participants, still in working groups, to **Handout 7.4 Mapping Matrices**. Explain that an important first step is to develop a spatial map of the district. Then ask participants to look over the mapping matrices. Discuss the information in each and why the matrix would be useful. Provide copies of **Matrix 2** for each working group to fill out, clarifying that the matrix is looking for information on health and nutrition services, programmes and community initiatives, and not necessarily CMAM. For each of the other matrices, ask the groups to develop a plan for how the information would be gathered. Ask one group to present their matrix to the other groups. Discuss in plenary.

PARTICIPATORY LECTURE: CAPACITY ASSESSMENTS. Explain to participants that an essential part of planning CMAM services, in both emergency and non-emergency contexts, is to assess the capacity of existing health systems to support CMAM. This helps planners to identify what they can build on. This includes:

- A thorough analysis of **leadership and governance**: Assessing the capacity of the Ministry of Health (MOH) and collaborating NGOs; identifying, creating or adapting national policies and guidelines that support CMAM services; reviewing the health surveillance and reporting systems in the district, region or country in which a programme is being planned.
- Analysing the **health financing** and determining financial resources to support the programme or service delivery in a sustainable manner
- **Health workforce for CMAM**
- **Knowledge and information systems for CMAM**
- **Access to CMAM equipment and supplies**: Therapeutic food supplies (e.g., ready-to-use therapeutic food [RUTF], F75, F100, ReSoMal, combined mineral and vitamin mix [CMV]), medicines, equipment (e.g., scales, height boards, mid-upper arm circumference [MUAC] tapes), monitoring and reporting tools
- **CMAM service delivery**: Community outreach (e.g., community assessment, community mobilisation and training, community screening and referral systems), inpatient care, outpatient care, supplementary feeding, health system, staffing, integration in health services, links with other relevant services, and continuous quality improvement

WORKING GROUPS: PRACTICE CAPACITY ASSESSMENT FOR CMAM. Refer participants to **Handout 7.5 Capacity Grid for CMAM at the District Level** and to the grids in **Handout 7.7 Example Capacity Grids for Outpatient Care at the Health Facility Level and for CMAM at the National Level**. Discuss the grids and in what situations they would be most useful. Ask groups to reflect on the Elements to Address column and fill in the other columns: Who Currently, How Currently, MOH Capacity to Do This, Gaps, Solutions and Priority. Ask one group to share results.

Note: Facilitators and other resource people should support the working groups as they assess their MOH capacity for CMAM.

GROUP DISCUSSION: GHANA CASE STUDY SWOT ANALYSIS. Remind participants of **Case Study: Situation Analysis, Ghana**, which they were to have read before beginning this module. Ask if there are any questions. If so, discuss. Ask if any participants are familiar with SWOT analyses. Explain that the analysis is important in programme planning to explore strengths, weaknesses, opportunities and threats in areas such as programme quality, capacity, human resources development and anything else pertinent to the introduction of CMAM services. Note that this is best done in a session with stakeholders involved in nutrition programming.

WORKING GROUPS: PRACTICE A SWOT ANALYSIS. Ask participants to return to their working groups. Distribute copies of **Handout 7.6 SWOT Analysis for CMAM**. Ask participants to fill in the SWOT table and to think of strengths, weaknesses, opportunities and threats in terms of introducing, implementing, strengthening and expanding CMAM in their area. In plenary, ask one group to share the strengths in their district, while other groups will present weaknesses, opportunities and threats, respectively.

WORKING GROUPS: PRACTICE DETERMINING NEEDS BASED ON THE SITUATION ANALYSIS. Still in working groups, ask participants to discuss their overall findings and determine the needs for an intervention based on the analysis of the situation. Working groups should specify the target population, geographic coverage and timeframe.

Module 7 Learning Objective 3: Develop a Logical Framework for CMAM

TRAINER: Review **Handout 7.1** Key Elements of CMAM Framework Aligned with the Health Systems Strengthening (HSS) Building Blocks and become familiar with **Handout 7.8** Using a Logical Framework for CMAM and **Handout 7.9** Example Logical Framework for CMAM.

WORKING GROUPS: TRANSLATE NEEDS INTO A GOAL AND OBJECTIVES OF THE PROPOSED INTERVENTION. Ask participants to draft the goal and objectives of the proposed intervention based on the identified needs, including target population, geographical area and timeframe. Ask groups to discuss the type and strategy of CMAM needed in their area. Groups should determine whether the services should be short-term emergency, emergency with a view to longer-term service delivery or non-emergency service delivery. In addition, groups should discuss whether the services will be operated by an NGO or by the MOH and whether the service should be integrated into health services or should be stand-alone. Groups should reach a consensus and report back in plenary.

PARTICIPATORY LECTURE: LOGICAL FRAMEWORK FOR CMAM. Draw a grid on a flip chart and fill in the column headings as they appear in **Handout 7.9 Example Logical Framework for CMAM**. Explain that a logical framework is a simplified design and planning tool that will help to identify goals, objectives, outcomes, outputs/activities and inputs for planned CMAM services. Fill in the row headings as they appear in **Handout 7.9** while explaining how each main component (goal, service objective, outcome, output/activity) differs from the others. Use **Handout 7.8 Using a Logical Framework for CMAM, Sections A and B** as a guide.

Refer participants to **Handout 7.9** and ask them to read it quietly. In plenary:

- Ask if anyone can explain the difference between a “goal” and an “objective,” then between an “objective” and an “outcome,” and, finally, between an “outcome” and an “output/activity” and an “input.” Suggest that they refer to **Handout 7.8** to help articulate their answers, if necessary.
- Referring to the Outputs/Activities section, ask participants if they recognise the five headings (desired outcomes) under which outputs/activities appear. These are the six domains in the key elements of CMAM framework aligned with the HSS building blocks, as listed in **Handout 7.1**.
- Ask why “assumptions” is an important category of information. What if no assumptions were made? What impact could this have on measuring results once the service or programme is operating?

Referring participants to **Handout 7.8, Section C**, discuss the difference between performance indicators and output indicators. Answer any questions.

WORKING GROUPS: PRACTICE DEVELOPING A LOGICAL FRAMEWORK. In the same working groups, ask participants to complete a logistical framework for CMAM services in their district based on the needs they determined earlier. Explain that **Handout 7.1 Key Elements of CMAM Framework Aligned with the HSS Building Blocks** can provide a useful framework in determining outputs/activities, as in the example in **Handout 7.9**, above. In plenary, ask working groups to compare the goals and objectives and provide example outcomes, outputs/activities and inputs. Discuss the assumptions each group made as well as the indicators.

Module 7 Learning Objective 4: Develop an Action Plan for CMAM

TRAINER: Review **Handout 7.1** Key Elements of CMAM Framework Aligned with the Health Systems Strengthening (HSS) Building Blocks and become familiar with **Handout 7.10** Calculating Estimated SAM and MAM Cases, **Handout 7.11** Staff Needs, Roles and Responsibilities, **Handout 7.12** Calculating Estimated RUTF Needs, **Handout 7.13** Overview of Resources for CMAM and **Handout 7.14** Matrix for Action Planning.

BRAINSTORM: INFORMATION TO ASSESS BEFORE ACTION PLANNING. Ask participants to quickly review some of the planning steps they have completed in this module so far, the conclusions they have reached and decisions made. The points they raise do not have to be exhaustive. Explain that, building on the situation analysis (needs) and logical framework (design and strategy), the next step is an action plan. Before creating the action plan, additional information is required. Ask participants to name what they think might be key information for developing an action plan. Write answers on the flip chart, asking leading questions as necessary to elicit the following answers:

1. Defining target population and geographical coverage, including estimating the number of SAM cases
2. Identifying sites, including learning sites
3. Determining staffing needs and staff roles and responsibility
4. Determining RUTF needs

DEMONSTRATION: ESTIMATING SAM CASES. Explain to participants that the parameters of the service delivery are important to quantify. Through their work on a situation analysis and logical framework, the target population can be determined. CMAM prioritizes children under 5, but the target population could be larger or narrower in certain contexts. Once the parameters have been identified, it is important to calculate the estimated number of children who need treatment for SAM. Refer participants to **Handout 7.10 Calculating Estimated SAM and MAM Cases** and demonstrate the calculation.

WORKING GROUPS: PRACTICE ESTIMATING SAM AND MAM CASES. Ask participants to think back to their situation analysis. Using the information they generated there, ask them to estimate the number of SAM cases in the geographic coverage area of their proposed programme. (If they have not done so already, they should be asked to specify the geographical or administrative area where CMAM services will be provided. This assumes that CMAM is not included in the national policy and hence is not part of the national essential health care package or routine health services). Review the calculations in plenary.

Explain that estimation of the caseload using prevalence of acute malnutrition should be interpreted and used with caution as recent studies have shown it could result to gross underestimation of the actual caseload⁶. To better predict the estimated SAM and MAM caseload, emerging evidence suggests applying a simple mathematical model to program data that are readily available to program managers⁷.

Show the global nutrition cluster SAM and MAM caseload calculator and allow participants some time to practice using the Microsoft Excel-based tool. The tool can be downloaded from this link:

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwiC_oKtYIXbAhVQdt8KHeR6DWoQFggvMAE&url=http%3A%2F%2Fnutritioncluster.net%2Fwp-

⁶ Deconinck, H. et al. 2016. "Challenges of Estimating the Annual Caseload of Severe Acute Malnutrition: The Case of Niger." *PLoS ONE*. 11(9): e0162534. doi:10.1371/journal.

⁷ Bulti A. et al. 2017. "Improving Estimates of the Burden of Severe Acute Malnutrition and Predictions of Caseload for Programs Treating Severe Acute Malnutrition: Experiences from Nigeria." *Archives of Public Health*. 75:66 DOI 10.1186/s13690-017-0234-4.

[content%2Fuploads%2Fsites%2F4%2F2016%2F12%2FNC-Caseload-target-and-supplies-calculator.xlsx&usg=AOvVaw0hOL5uVgL7fxU6FW8Y2Y7j](#).

Explain to participants that it is important to consider potential for seasonal peaks in SAM and MAM rates; this will be covered in more detail later in the module.

PARTICIPATORY LECTURE: IDENTIFYING LEARNING SITES. Explain that a learning, or pilot, site is one where health care providers from other sites can come to learn skills during in-service training or on a learning visit. Learning sites are important in non-emergency situations but may be difficult to establish in an emergency setting. Ask participants to quickly name what they think key characteristics of a good learning or pilot site are (e.g., strong capacity, easy access). Note that establishing a learning site is an effective base on which to roll out additional services. Next, it is important to define how services will be rolled out to cover the outpatient and inpatient sites as planned and to ensure community outreach skills in all targeted communities.

ELICITATION: CONSIDERATIONS IN SELECTING HEALTH FACILITIES. Ask participants what should be taken into account when selecting potential health facilities for CMAM services. Possible answers include:

- Sufficient number of qualified staff (according to national policies) for expected caseload
- Expected number of patients
- Sufficient space at health facility
- Ensuring that outpatient care activities will not interfere with other ongoing activities
- Storage available
- Source of clean drinking water
- Areas of population influx and/or hot spots where caseload is always high
- Community demand

WORKING GROUP DISCUSSION: IDENTIFYING LEARNING AND IMPLEMENTATION SITES.

Ask participants, still in working groups, to discuss potential locations for learning and implementation sites in their district. Ask them to discuss the following questions:

- Which geographic locations are best?
- What kind of support will these sites need?
- Which sites seem to be good candidates and why?

Have each group share two or three key points of their discussion. Discuss and answer any questions. Next, ask participants to discuss how they would go about expanding CMAM services from the learning site:

- At what pace would they roll out new services?
- How would they build capacity at new outpatient care sites?
- How would they decide where to expand?

Have each group share two or three key points of their discussion.

READING: UNDERSTANDING STAFFING NEEDS. Refer participants to **Handout 7.11 Staff Needs, Roles and Responsibilities** and ask them to read quietly. Answer any questions.

PRACTICE: CALCULATING RUTF NEEDS. Remind participants that RUTF is an essential component of CMAM, therefore, calculating estimated RUTF needs is essential. Refer participants to **Handout 7.12 Calculating Estimated RUTF Needs**. Discuss the example given and answer any questions. Then ask

participants to calculate the estimated RUTF needs for the CMAM services planned in their district based on the number of SAM cases estimated above.

GROUP DISCUSSION: ACCESS TO CMAM EQUIPMENT AND SUPPLIES. Refer participants to **Handout 7.13 Overview of Resources for CMAM**. Discuss each category: staff, equipment and supplies, transport, physical structures and equipment per site. (Note that while RUTF is mentioned, actual supply should be based on RUTF needs as calculated above.) Ask participants which of the supplies on the list are challenging to obtain and what they would need to do to obtain them. Discuss and answer any questions.

WORKING GROUPS: PRACTICE PRODUCING AN ACTION PLANNING MATRIX. Refer participants to **Handout 7.14 Matrix for Action Planning**. Discuss the overall categories and how to think through the timing of the activities. Have participants return to their working groups and, building on work completed in the past activities, ask them to:

- List all planned activities using the key elements of CMAM, as listed in **Handout 7.1**, to classify the activities
- Develop a timeline
- Indicate responsible persons and resources for each activity (use the key elements of CMAM aligned with the HSS building blocks to classify the activities)

Have participants present their action plans in plenary, receiving feedback and suggestions from others.

Note: Logistical planning can be developed separately and includes specific actions on organising transportation, shelter, equipment, materials and supplies, including monitoring and reporting forms.

Module 7 Learning Objective 5: Planning for Special Cases: Transitioning and Contingencies

TRAINER: Become familiar with **Handout 7.15** Matrix for Transition Planning of CMAM and **Handout 7.16** Guidance for Contingency Planning for CMAM. Refer back to **Handout 7.5** Capacity Grid for CMAM at the District Level if necessary.

BRAINSTORM: TRANSITION PLANNING. Explain to participants that transition refers to the process leading up to hand-over, including planning and preparation for the gradual transfer of roles and responsibilities for CMAM services to the MOH until hand-over is complete. Note that in many locations, CMAM has been initiated by NGOs or outside donors in collaboration with the MOH or local/district health office. From the outset, a plan should be in place for the MOH to eventually assume control of the CMAM services, particularly if the services will be integrated into routine health services. Planning also is required if the intervention is short term and must be phased out.

On the flip chart, create a chart with two columns, labelled “Emergency CMAM Programme” and “Non-Emergency CMAM Programme.” Ask participants to brainstorm on the differences between an emergency CMAM programme and a non-emergency CMAM programme (e.g., management, goals, objectives, resources, intensity, priority within the health system, staffing, components). Write ideas on the flip chart. Based on these differences, ask participants what they would need to consider during CMAM planning if they are transitioning from an emergency to a non-emergency context.

WORKING GROUPS: PRACTICE TRANSITION PLANNING. Refer participants to **Handout 7.15 Matrix for Transition Planning of CMAM** and tell them to refer back to their capacity assessment at the district level. Ask each working group to fill out the matrix. Have groups compare **Potential Adaptations:** This is a very context-specific activity. Trainers should adapt it to audience needs and adjust the amount of time spent on this topic. This should have been discussed in much greater detail in **Learning Objective 4: Develop an Action Plan for CMAM.** It can also be part of the CMAM Capacity Grid (see **Handout 7.5 Capacity Grid for CMAM at the District Level** for reference), rather than a separate activity. Participants’ professional roles will also affect this activity. For example, health care managers might need to think about long-term support for the programme, while health care providers might be more concerned with how to handle the services with current staffing levels.

PARTICIPATORY LECTURE: CONTINGENCY PLANNING. Explain to participants that unexpected events or circumstances, such as civil unrest or natural disasters, might rapidly increase the number of SAM cases among already vulnerable populations. It is critical to plan for these contingencies so that the system is prepared to handle an increased caseload.

For contingency planning, the threshold level—the point where the caseload exceeds the capacity to manage it—must be determined. Factors to consider include:

- Number of staff per health facility available for outpatient care
- Expected caseload
- Having a strategic plan in place to deal with an outpatient care caseload that exceeds capacity to manage it

In emergencies, it is important to consider which health facilities can offer CMAM, as well as whether more outpatient care sites will be needed and where to locate them. Human resource requirements should also be estimated.

GROUP DISCUSSION: CONTINGENCY PLANNING. Ask participants to share examples of any advance contingency planning they have done in their health centres for any situation (not necessarily undernutrition). Ask the following questions:

- What kind of fluctuations in the health and nutrition situation are common in their community?
- What are some key elements that they consider?

Refer participants to **Handout 7.16 Guidance for Contingency Planning for CMAM**. Show the **Contingency Planning Process** flow chart and ask participants to describe the basic elements of all of the major steps. Also highlight on the CMAM surge approach as an **Example of an Approach for Strengthening the Health System to Plan and Manage Increased Demand for SAM and MAM Services**.

Module 7 **Wrap-Up and Module Evaluation**

Suggested Method: Review learning objectives and complete evaluation form.

- Review the learning objectives of the module. In this module, you have:
 1. Described key elements of CMAM aligned with the WHO health systems strengthening (HSS) building blocks and are prepared for the planning process
 2. Identified key components of a situation analysis, and analysed and conducted a basic situation analysis
 3. Developed a logical framework for CMAM
 4. Developed an action plan for CMAM
 5. Planned for transition and contingencies, and have a basic understanding of the CMAM surge approach
- Ask for any questions and feedback on the module.
- Ask participants to complete the evaluation form.

MODULE EIGHT: MONITORING AND REPORTING ON CMAM

Module Overview

This module introduces participants to the basic principles of monitoring, reporting on and supervising community-based management of acute malnutrition (CMAM) services, with a focus on outpatient care.

The module describes how individual infants and children are tracked and monitored in CMAM and how monitoring information and data are collected and reported for the service/programme as a whole. The purpose and function of support and supervisory visits are discussed.

The importance of tracking infants and children between outpatient care and inpatient care, using referral slips, filling in the outpatient care treatment cards and using a simple numbering system has been previously covered. This module focuses on bringing it together through a simple monitoring system.

This module includes practical exercises that will provide participants with the opportunity to practice compiling data and information. It also includes a half-day field practice at an outpatient care site to observe registration, tracking, monitoring, reporting and supervision procedures.

Monitoring and reporting on CMAM combines outpatient care and inpatient care information, and performance indicators are based on these combined statistics. The monitoring system from each outpatient care and inpatient care site must be well standardized and coordinated to avoid double counting.

Note: This module does not cover monitoring and reporting on the supply system (e.g., management and transportation of equipment, materials, drugs, therapeutic food) or on human resources.

Learning Objectives	Duration	Handouts and Exercises
1. Describe the Principles of a Monitoring and Reporting System for CMAM	15 minutes	
2. Describe How the Individual Infant or Child Is Tracked and Monitored in CMAM	45 minutes	Handout 8.1: Monitoring the Individual Infant or Child in Outpatient Care Handout 8.2: Registration Numbering System Proposed for CMAM Handout 8.3 Monitoring and Reporting on CMAM Handout 8.4 Filing Outpatient Care Treatment Cards

3. Complete Site Tally Sheets and Site and District Reports; Interpret the Findings	1 hour	Handout 8.3 Monitoring and Reporting on CMAM Handout 8.5 Site Tally Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months Handout 8.6 Site Report Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months Handout 8.7 District or National Reporting Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months Exercise 8.1 (a) Outpatient Care Site Tally Sheet and Site Reporting Sheet Exercise 8.2 Completing Site Tally Sheet
4. Calculate and Discuss Service/Programme Performance and Coverage	45 minutes	Handout 1.2 Terminology for CMAM Handout 8.8 CMAM Indicators Handout 8.9 Principles of Coverage Exercise 8.1 (b) Outpatient Care Site Reporting Sheet
5. Monitor and Respond to Barriers to Access	30 minutes	Handout 8.10 Monitoring Barriers to Access Exercise 8.3 Community Meeting Role-Play
6. Explain the Purpose of Support and Supervision Visits and the Role of a Supervisor/Mentor	1 hour	Handout 8.11 Support and Supervision for CMAM Handout 8.12 Support and Supervision Checklist for Outpatient Care Handout 8.13 Support and Supervision Checklist for Community Outreach Exercise 8.4 Analysis of the Site Reports of Three Outpatient Care Sites and One Inpatient Care Site OPTIONAL: Supplemental Reference 8.1 Setting Up a CMAM Monitoring System Using an Electronic Database in Excel and Using a CMAM mHealth Application
7. Prepare an Outline for CMAM Reporting	30 minutes	Handout 8.14 Guidance on CMAM Reporting
Wrap-Up and Module Evaluation	15 minutes	
Field Visit for Monitoring and Reporting	½ day	Handout 8.3 Monitoring and Reporting on CMAM Handout 8.8 CMAM Indicators Handout 8.12 Support and Supervision Checklist for Outpatient Care

Module Duration: Five hours in classroom, half-day field practice

Note: Depending on the needs of their audience(s), trainers may 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.

Materials

- Handouts
- Calculators
- Flip charts
- Markers, masking tape
- Copies of outpatient care treatment cards
- Copies of Handout 1.2 Terminology for CMAM, Handout 4.1 Admission Criteria and Entry Categories for CMAM, and Handout 4.20 Discharge Criteria and Exit Categories for CMAM.

Advance Preparation

- Room setup
- Create individual role-play cards for Group Exercise 8.1 (b): Community Meeting Role-Play.
- Review relevant reference resources and further reading resources listed below.

Reference Resources

1. Frank, T. 2017. *A Mobile Health Application to Manage Acute Malnutrition. Lessons from Developing and Piloting the App in Five Countries*. World Vision/Save the Children. Available at: http://www.transformnutrition.org/wp-content/uploads/sites/3/2017/04/TN_WorkingPaper1_MobileApp_Online.pdf.
2. Myatt, M. et al. 2012. *Semi-Quantitative Evaluation of Access and Coverage (SQUEAC)/ Simplified Lot Quality Assurance Sampling Evaluation of Access and Coverage (SLEAC) Technical Reference*. Washington, DC: FHI 360/Food and Nutrition Technical Assistance Project (FANTA). Available at: https://www.fantaproject.org/sites/default/files/resources/SQUEAC-SLEAC-Technical-Reference-Oct2012_0.pdf.
3. Valid International. 2006. *Community-based Therapeutic Care: A Field Manual*. (Chapters 9 and 10.) Oxford: Valid International. Available at: <https://www.fantaproject.org/sites/default/files/resources/CTC-Field-Manual-Oct2006-508.pdf>.

Further Reading Materials

1. Roschnik, N.; Chui, J.; and Keane., E. June 2017. *Preliminary Findings from a Malnutrition Mobile App Randomised Trial in Wajir, Kenya*. Available at: http://www.transformnutrition.org/wp-content/uploads/sites/3/2017/06/TN_ResearchBrief14_Online.pdf.
2. The Sphere Project. *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response (2018 Revision)*. Available at: <http://www.sphereproject.org/handbook/revision-sphere-handbook/draft-ready-for-feedback/food-security-nutrition/>.
3. FANTA. 2008. *Report on the International Workshop on the Integration of Community-Based Management of Acute Malnutrition* (Washington, D.C., April 28-30, 2008). Available at: <http://files.enonline.net/attachments/1200/integration-of-cmam-washington-enn-2008.pdf>.

Module 8 Learning Objective 1: Describe the Principles of a Monitoring and Reporting System for CMAM

TRAINER: Review **Handout 4.1** Admission Criteria and Entry Categories for At-Risk Mothers and Infants Under 6 Months and Children 6-59 Months and **Handout 4.20** Discharge Criteria and Exit Categories for CMAM. Note these handouts are to be used for reference throughout the module. Refer Modules 4-6 for additional review of admission and discharge criteria if necessary.

GROUP DISCUSSION: RATIONALE AND PRINCIPLES FOR CMAM MONITORING AND REPORTING SYSTEMS. Ask participants to brainstorm the following questions:

1. What are the key aspects of monitoring and reporting on CMAM?

Fill in the gaps in the discussion with the following information: To monitor a CMAM service effectively, you will need to:

- Monitor the individual infant or child
- Monitor and report on the effectiveness of the service as a whole
- Supervise and support the health care providers

2. Why do we monitor CMAM services?

Fill in the gaps in the discussion with the following information: Monitoring helps to identify what is working well (strengths), what is not working and where there might be gaps (weaknesses). With this information, weaknesses and gaps can be addressed.

- In CMAM, the individual infant or child is monitored to ensure that she/he is treated appropriately and effectively, which helps to continually improve the services they receive.
- Health care providers are supervised and supported to maintain their skills and ensure a successful service that treats all infants and children who meet the criteria.

3. What are some characteristics of an effective health management information system (HMIS)?

Fill in the gaps in the discussion with the following information: An HMIS must be simple to minimise the demands on health care providers but provide sufficient useful information to ensure service/programme effectiveness and to allow health managers to make decisions and adjustments. An HMIS should complement--not duplicate--existing systems. An HMIS that includes reporting on cases of SAM might already exist, and/or the Ministry of Health (MOH) or UNICEF might have reporting requirements for reporting on acute malnutrition.

4. Who should be responsible for monitoring and reporting on CMAM? Who should supervise the CMAM service/programme in your districts?

Fill in the gaps in the discussion with the following information: This will differ for each district. But for each aspect of monitoring, it is important to determine in advance who specifically is responsible for collecting and documenting the data and who specifically is responsible for reporting.

Module 8 Learning Objective 2: Describe How the Individual Infant or Child Is Tracked and Monitored in CMAM

TRAINER: Become familiar with **Handout 8.1** Monitoring the Individual Infant or Child in Outpatient Care, **Handout 8.2** Registration Numbering System Proposed for CMAM, **Handout 8.3** Monitoring and Reporting on CMAM and **Handout 8.4** Filing System for Outpatient Care Treatment Cards.

ELICITATION: INFORMATION AND TOOLS FOR INDIVIDUAL MONITORING. Ask participants what tools they have encountered in their training that could help track infants and children in CMAM. How do each of these tools help? Fill in the gaps with the tools described below:

- The infant's or child's unique registration number
- Outpatient care treatment card: Each infant or child's medical history, feeding information, physical examination, anthropometry, appetite, medical treatment and nutrition rehabilitation are monitored on an outpatient care treatment card. Progress of individual treatment is recorded through clinical signs, the mother/caregiver's report of illness and anthropometry (mid-upper arm circumference [MUAC] and weight).
- Ready-to-use therapeutic food (RUTF) ration card: The provision of RUTF per session is calculated based on the child's weight and is recorded on an RUTF ration card, along with the session frequency
- Referral slips: These forms, which use the infant or child's unique registration number, are used to refer children from outpatient care to inpatient care and vice versa.

Refer participants to **Handout 8.1 Monitoring the Individual Infant or Child in Outpatient Care**. Ask participants what other information is necessary to monitor the infant or child admitted to CMAM. Ask who is responsible for monitoring. Ask them to find the answers in **Handout 8.1**.

PARTICIPATORY LECTURE: REGISTRATION NUMBERS. Note to participants that individual infants and children enrolled in CMAM are tracked within outpatient care and when referred to other services. This ensures that admission, discharge and treatment procedures are followed and documented correctly, which allows health care providers to follow cases of children as necessary.

Infants and children are registered upon admission to CMAM at the site where they first present and are assigned a unique registration number. This number is noted on their treatment card or health card (or in the registration book if one is used) and is used to track the infant or child while she/he is enrolled in CMAM.

GROUP DISCUSSION: REGISTRATION NUMBERS. Draw the numbering system in Handout 8.2 Registration Numbering System Proposed for CMAM, Table 1 on a flip chart. Explain that a standard numbering system for CMAM (Example 1) has three parts: the health facility's name or code, the infant or child's individual number and a code representing the service where the infant or child first received treatment. Compare this with the HMIS numbering system for Malawi (Example 2). Ask participants if their country uses an HMIS numbering system or another numbering system for other interventions. Discuss how these might differ from the standard numbering system for CMAM. Discuss the bullet points on Handout 8.2 and answer any questions. Emphasise that numbering systems can vary per country, therefore consultation with the national guideline is essential. Also note that when establishing CMAM, its numbering system should be compatible with the registration numbering system already in place.

PARTICIPATORY LECTURE: CLASSIFYING CHILDREN INTO ENTRY AND EXIT CATEGORIES. Explain to participants that children in CMAM are tracked among services and are not double-counted. Refer participants to **Handout 8.3 Monitoring and Reporting on CMAM, Part A** for more

information. This information and the remainder of **Handout 8.3** will be covered further in **Learning Objective 3: Complete Site Tally Sheets and Site and District Reports; Interpret the Findings.**

- **Classifying Entries:** At entry, the infant or child is classified as a new admission age under 6 months, 6 to 59 months (optional: admission criteria recorded), as a new “other” admission (children ≥ 5 y, adolescents, adults) or as an old case (when referred from inpatient or outpatient care or when returning after defaulting). A relapse is classified as a new admission, which will be indicated on the outpatient care treatment card.

Ask participants what tools they have encountered in their training that can help determine which category each child falls into and how to track him/her (e.g., CMAM admission criteria, CMAM entry categories, outpatient care treatment cards). Tell participants that they will shortly learn about other tools to help them with classification and tracking: filing treatment cards in binders and completing site tally sheets and site reporting sheets.

- **Classifying Exits:** On exit from outpatient care, each infant or child is categorised as discharged as cured, died, defaulted or non-recovered; this is also indicated on the outpatient care treatment card and tallied. The exits are also categorised by age (< 6 months, 6-59 months and others [children ≥ 5 y, adolescents, adults]). Ask participants again what tools they have encountered in their training that can help determine which category each infant or child falls into and how to track him/her (e.g., CMAM discharge criteria, CMAM exit categories, outpatient care treatment cards, binders, site tally sheets). Referrals to inpatient care or outpatient care are a separate exit category.

Note: Infants and children who are referred between outpatient care and inpatient care are considered discharged from the site but NOT from the service/programme. They are registered at the new site using their unique registration number and may return to their original site; their status is “referred.” Children who are not recovering are referred for further medical investigation as soon as the condition is diagnosed and exit from CMAM as non-recovered only if they do not reach the discharge criteria after four months of treatment. Children referred to outpatient care from supplementary feeding because their condition has deteriorated are considered new admissions.

REVIEW: OUTPATIENT CARE TREATMENT CARDS. Distribute copies of outpatient care treatment cards to participants. Review where anthropometry, medical history, feeding information, physical examination, appetite test, medical treatment and nutrition rehabilitation information for each child are entered. Review the back of the card where information on referrals and discharges (infants and children who were cured, died, defaulted or did not recover) should be entered. Remind participants that health care providers and supervisors should review the outpatient care treatment cards regularly to ensure that current protocols are followed.

PARTICIPATORY LECTURE: FILING OUTPATIENT CARE TREATMENT CARDS. Explain to participants the importance of having a clear and accessible filing system for outpatient care treatment cards that makes tracking active and exited cases simple and allows for quick reference. Outpatient care treatment cards should be organised in binders or files that remain in the health facility and should be accessible at all times. Active and exited cases should be separated into two binders or sets of files with dividers. The active cases binder or files include cards for all infants and children currently enrolled in CMAM services at that site. Cards in the exited cases binder or files are organised according to exit category. Staff should review the binders or files weekly.

PRACTICE: FILING OUTPATIENT CARE TREATMENT CARDS. Draw a table with two columns on the flip chart. Mark the first column heading as “Active Cases” and the second column as “Exits.” In plenary, ask participants which column each of the following classifications belongs in:

- Infants and children currently in outpatient care (Active Cases)
- Cured (Exits)

- Died (Exits)
- Non-recovered – those who have not reached discharge criteria after four months of treatment (after medical investigation) (Exits)
- Absentees – those who have missed one or two outpatient care follow-on visits (Active Cases)
- Defaulted – those who have missed three outpatient care follow-on visits (Exited)
- Referrals awaiting return – those who have been referred from outpatient care to inpatient care (Exited temporarily the site, not the service/programme) or for medical investigation (Active Cases)
(Note to participants that when the infant/child returns after defaulting or referral, the same outpatient care treatment card is used.)

Distribute copies of **Handout 4.1** Admission Criteria and Entry Categories for At-Risk Mothers and Infants Under 6 Months and Children 6-59 Months, **Handout 4.20** Discharge Criteria and Exit Categories for CMAM and refer participants to **Handout 8.4** Filing Outpatient Care Treatment Cards for reference. Discuss the active cases or exits categories if questions arise.

Module 8 Learning Objective 3: Complete Site Tally Sheets and Site and District Reports; Interpret the Findings

TRAINER: Review **Handout 8.3** Monitoring and Reporting on CMAM and become familiar with **Handout 8.5** Site Tally Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months, **Handout 8.6** Site Report Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months, **Handout 8.7** District or National Reporting Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months, **Exercise 8.1** Outpatient Care Site Tally Sheet and Site Reporting Sheet and **Exercise 8.2** Completing Outpatient Care Site Tally Sheet.

PARTICIPATORY LECTURE: ROUTINE DATA COLLECTION. Routine service data are recorded on **site tally sheets** at each site, based on quantitative data recorded after each session. The site tally sheets are compiled in **site and district reporting sheets**. **District reports** combine the information from the different health facilities in the district that provided CMAM services. District reports inform the **national reporting sheets and report system**. The CMAM reporting systems can be a compilation of reporting sheets (hard copies) or entered in an electronic database (Excel spreadsheet). Emphasise to participants the importance of inpatient and outpatient care sites using standardized reporting sheets so that the service's overall effectiveness can be precisely monitored.

Note: At the end of every outpatient care session outpatient care treatment cards for new admissions and new exits are used to fill the site tally sheet for that session. **New admissions** are tallied based on their entry category (per admission criterion and age group or per age group only). **New exits** are tallied based on their exit category (cured, died, defaulted, non-recovered). Depending on the site tally sheet used, referrals from inpatient care to outpatient care could be tallied as an admission (under referral from inpatient care) or separately from new admissions as "moved in."

GROUP DISCUSSION: QUANTITATIVE DATA FROM SITE TALLY SHEETS. Ask participants if they have ever used tally sheets in their work and, if so, what they were using the tally sheets to track. Refer participants to **Handout 8.5 Site Tally Sheet for the Management of SAM and Nutritionally Vulnerable Infants Under 6 Months** and ask them to examine how the outpatient care site tally sheet considers the quantitative data they record. While referencing the sheet, ask participants where the following categories of children would belong:

- Children under 5 who are referred from supplementary feeding and sent to outpatient care because their condition has deteriorated
(Answer: classified as "new case" admission 6-59 months)
- Defaulters who exited from the service but returned to outpatient care and had not yet met the discharge criteria
(Answer: classified as 'old case' admission: from outpatient/inpatient care or returned defaulters)
- Children who return to outpatient care from inpatient care or vice versa
(Answer: classified as 'old case' admission; from outpatient/inpatient care or returned defaulters)
- Children who are moved from one outpatient care site to another to continue their treatment (Answer: classified as 'Old case' admission from outpatient/inpatient care or returned defaulters on the outpatient care site tally sheet of new site, and classified as exit as 'referral to outpatient care/inpatient care' on the tally sheet of the old site)

- All children who are admitted to inpatient care after spending some time in outpatient care (Answer: classified as “old case” admission, “to outpatient/inpatient care” on the inpatient care site tally sheet)
- Children with SAM and medical complications who present directly at inpatient care (Answer: classified as “new admission 6-59 months” on the inpatient care site tally sheet)
- Children with SAM and medical complications who first present at the outpatient care site, are admitted and classified after registration and start of treatment and then referred to inpatient care (Answer: classified as ‘old case’ admission from outpatient/inpatient care or returned defaulters” on the inpatient care site tally sheet since they were admitted and exited at the outpatient care site, thus classified twice, once as ‘New case’ admission and once as ‘Referral’ exit on the outpatient care site tally sheet), which avoids double-counting)

Ask participants if they can think of additional quantitative data that that might be helpful to capture on these sheets. Ask where they could find the information (e.g., outpatient care treatment cards). Answers could include:

Gender of new admissions and discharges

- Admission criteria of new admissions
- Feeding status and progress
- Average daily weight gain of cured exits
- Average length of stay of cured exits
- Readmission after discharge or relapse

PRACTICE: COMPLETING SITE TALLY SHEET. Refer participants to **Exercise 8.1(a) Outpatient Care Site Tally Sheet**. Ask them to fill in the total number of admissions and exits per week, as well as the number registered in the service/programme at the end of each week and beginning of each subsequent week. As they work, check their responses against the answer key. At the end check answers by asking participants to call out some of the totals. Answer any questions.

Exercise 8.1 (a) Outpatient Care Site Tally Sheet (with answers)

SITE	<i>Kawale</i>				
	Wk 6	wk 7	wk 8	wk 9	TOTAL
Date	4/02/18	11/02/18	18/02/18	25/02/18	
(A) Total start of week	50	56	62	57	
New Cases < 6 m (B1)	2	1	3	0	6
New Cases 6-59 m bilateral pitting oedema (B2a)	5	3	2	3	13
New Cases 6-59 m MUAC/WFH (B2b)	7	15	1	6	29
Other New Cases (children ≥ 5 y, adolescents, adults) (B3)	0	0	0	1	1
Old cases: Referred from inpatient care; other outpatient care; or Returned defaulters (C)	2	1	0	1	4
(D) TOTAL ADMISSIONS (D=B+C)	16	20	6	11	53
Cured < 6 months (E1a)	1	2	2	2	7
Cured 6- 59 months (E1b)	3	4	6	5	18
Cured Other (children ≥ 5 y, adolescents, adults) (E1c)	1	2	2	2	7
Died < 6 months (E2a)	0	1	0	0	1
Died 6- 59 months (E2b)	1	0	0	0	1
Died Other (children ≥ 5 y, adolescents, adults) (E2c)	0	0	0	0	0
Defaulted < 6 months (E3a)	1	1	0	1	3
Defaulted 6- 59 months (E3b)	1	0	0	0	1
Defaulted Other (children ≥ 5 y, adolescents, adults) (E3c)	0	0	0	0	0
Non-recovered < 6 months (E4a)	1	0	0	0	1
Non-recovered 6- 59 months (E4b)	0	1	0	1	2
Non-recovered Other (children ≥ 5 y, adolescents, adults) (E4c)	0	0	0	0	0
Referrals to inpatient or outpatient care (F)	1	3	1	2	7
(E) TOTAL DISCHARGES	9	11	10	11	41
(G) TOTAL EXITS (G=E + F)	10	14	11	13	48
(H) Total end of week (H=A+D-G)	56	62	57	55	

PARTICIPATORY LECTURE: MONTHLY SITE REPORTS PER HEALTH FACILITY. Explain to participants that the site reporting sheet is completed monthly using the site tally sheets. It provides performance indicators for the proportion of children discharged as cured, died, defaulted or non-recovered, in addition to the compiled numbers of total admissions, total exits and total number under treatment.

Note: Explain to participants that the monthly reporting system is based on epidemiological weeks that are agreed on at the national level. Every month has a pre-defined number of weeks (e.g., January has weeks 1-5, February has weeks 6-9, March has weeks 10-13). This is important because the number of weeks vary per month or can be interpreted differently, which can create reporting errors.

Refer participants to **Handout 8.3 Monitoring and Reporting on CMAM** and ask them to read the information in preparation for the following exercise. Briefly answer any questions.

PRACTICE: COMPLETING SITE REPORTING SHEET. Explain to participants that they will now enter the information from the site tally sheet onto the site reporting sheet **Exercise 8.1 (b) Outpatient Care Site Reporting Sheet**. Ask them to form pairs. Answer any questions. While they are working, circulate among them and check on their progress using the answers below.

Exercise 8.1 (b) Outpatient Care Site Reporting Sheet (with answers)**MONTHLY REPORT FOR MANAGEMENT OF SAM - SITE**

SITE	<i>Kawale</i>	IMPLEMENTED BY			
REGION		MONTH / YEAR	<i>February</i> <i>2018</i>		
DISTRICT		TYPE OF MANAGEMENT (CIRCLE)	<i>Inpatient</i> Outpatient		
		ESTIMATED MAXIMUM CAPACITY			
		ESTIMATED TARGET malnourished <5's (based on latest survey data and admission criteria)			
		RUTF Consumption	<table border="1"> <tr> <td>packets/sachets</td> <td>kg equivalent</td> </tr> </table>	packets/sachets	kg equivalent
packets/sachets	kg equivalent				

Age Category	Total beginning of the month (A)	New Cases (B)	Old Cases (C)	TOTAL ADMISSIONS (D) B+C = D	Discharges (E)				REFERRAL (F) to inpatient or outpatient care	TOTAL EXITS (G) (E+F=G)	TOTAL END OF THE MONTH (H) (A+D-G=H)
					CURED (E1)	DIED (E2)	DEFAULTED (E3)	NON-RECOVERED (E4)			
< 6 Months (according to admission criteria)		6			7	1	3	1			
6-59 Months (according to admission criteria)		42			18	1	1	2			
Other (children ≥ 5 y, adolescents, adults)		1			7	0	0	0			
TOTAL	50	49	4	53	32	2	4	3	7	48	55
					78.0%	4.9%	9.8%	7.3%			
TARGET (Sphere Standards)					>75%	<10%	<15%				

E1: Cured = reached discharge criteria
E2: Defaulted = absent for 3 consecutive sessions
E3: Non-recovered = does not read the discharge criteria after 4 months in treatment (after medical investigations)

PRACTICE: COMPLETING SITE TALLY SHEET STARTING FROM OUTPATIENT CARE

TREATMENT CARDS. Explain to participants that they are going to practice compiling information for site tally sheets from outpatient care treatment cards, and for a site report from the site tally sheet. Refer participants to **Exercise 8.2 Completing Site Tally Sheet**. Ask them to form pairs and read the instructions. Answer any questions and, while they are completing the site tally sheet and site report, circulate among the groups to check on their progress.

Check answers against the answer key below, and answer any questions. Emphasize to participants that these reports can take many forms and that it is essential to determine and coordinate with reporting systems used in the country and district they are working in.

Exercise 8.2 Completing Outpatient Care Site Tally Sheet (answer key)

Week 1

Ensure that the “total start of week” section is 0 for Week 1. The participants should add the three cases to the total admissions in Yirba Health Facility. In the admission section, outpatient care case 1 should be added to the “New cases < 6 Months SAM” and 2 should be added to the “New 6-59 months MUAC/WFH” box.

The tally sheet for Week 1 should read: One < 6 months admission, two MUAC admissions, three total admissions. There are no exits for Week 1.

Week 2

In Week 2, the “total in outpatient care at the start of the week” box is updated with the information from Week 1 (three cases). In the admissions section, outpatient care case 4 should be added to the bilateral pitting oedema box **and** to the “referred to inpatient care” section under exits because the child has bilateral pitting oedema +++ and requires inpatient care. The child has been entered and exited from the Yirba Health Facility and is now being treated in inpatient care. Outpatient care case 5 should be added to the “weight-for-height/weight-for-length [WFH/WHL]” new admission box.

The tally for Week 2 should read: three in outpatient care at start of week, one bilateral pitting oedema admission, one WFH/WFL admission, one exit as referral to inpatient care, two total admissions, one exit as a referral and four total in outpatient care at end of week.

Week 3

In the Week 3 tally sheet, the total in outpatient care at the start of the week should be four. In the admission section, outpatient care case 6 should be added to the bilateral pitting oedema box. This case does not require inpatient care because the child has bilateral pitting oedema ++, which can be treated in outpatient care. There is also one MUAC admission.

The tally for Week 3 should read: Four total in outpatient care at start of week, one bilateral pitting oedema admission, one MUAC admission, two total admissions, no discharges, no total discharges, six total in outpatient care at end of week.

Week 4

In the Week 4 tally sheet, the total in outpatient care at the start of the week should be six. The bilateral pitting oedema +++ case that was referred to inpatient care returns to outpatient care this week and should be added to the admission as an old case “from outpatient/inpatient care” box.

The tally for Week 4 should read: Four new admissions: three MUAC cases and one WFH/WFL case. The total in outpatient care should be 11.

Exercise 8.2 Yirba Outpatient Care Site Tally Sheet (with answers)**Health facility name**

Yirba Health Centre

District

Boricha

District	Site	Donors				
		Inpatient care	Outpatient care			
	Date	wk 1	wk 2	wk 3	wk 4	TOTAL
Total start of week (A)		0	3	4	6	0
New Cases < 6 m (B1)		1		0	0	
New Cases 6-59m Bilateral Pitting oedema (B2a)			1	1		
New Cases 6-59m MUAC (B2b)		2		1	3	
New Cases 6-59m WFH/WFL (B2c)			1		1	
Other New Cases (children ≥ 5 y, adolescents, adults) (B3)						
Old Cases: Referred from inpatient care, or Returned defaulters (C)					1	1
TOTAL ADMISSIONS (D=B+C)		3	2	2	5	12
Cured < 6 months (E1a)						
Cured 6- 59 months (E1b)						
Cured Other (children ≥ 5 y, adolescents, adults) (E1c)						
Died < 6 months (E2a)						
Died 6- 59 months (E2b)						
Died Other (children ≥ 5 y, adolescents, adults) (E2c)						
Defaulted < 6 months (E3a)						
Defaulted 6- 59 months (E3b)						
Defaulted Other (children ≥ 5 y, adolescents, adults) (E3c)						
Non-recovered < 6 months (E4a)						
Non-recovered 6- 59 months (E4b)						
Non-recovered Other (children ≥ 5 y, adolescents, adults) (E3c)						
Referred to inpatient care (F)			1			1
TOTAL DISCHARGES (E)		0	0	0	0	0
TOTAL EXITS (G=E + F)		0	1	0	0	1
Total end of week (H=A+D-G)		3	4	6	11	11

Module 8 Learning Objective 4: Calculate and Discuss Service/Programme Performance and Coverage

TRAINER: Refer back to **Handout 1.2** Terminology for CMAM and to **Exercise 8.1 (b)** Outpatient Care Site Reporting Sheet. Become familiar with **Handout 8.8** CMAM Indicators and **Handout 8.9** Principles of Coverage.

PAIR WORK AND GROUP DISCUSSION: MONITORING SERVICE PERFORMANCE OF CMAM.

Explain to participants that site tally sheets and site reports with summarised performance indicators per site are important tools to monitor trends in that particular site. They provide a look at admissions and performance to see if particular areas need investigation or support.

Divide participants into pairs and ask them to refer back to **Exercise 8.1(b) Outpatient Care Site Reporting Sheet**. Have the pairs calculate the percentages that each exit category (**Discharges [E]**) comprises of the total exits (**Total Exits [G]**). Explain that analysis of the site reports provides information about the performance of the CMAM service for the individual health facility and the district as a whole. The admission and summarised performance indicators can point to areas that need investigation and support. For example, they might find that the service has very high default rates. Once known, ways can be found to address the problems and strengthen the service.

Ask the pairs to draw any conclusions they can from the data. Discuss in plenary.

Note to participants that Sphere minimum standards might not apply to (or be realistic for) CMAM services operated by the MOH as part of routine health services. However, in the absence of other comparisons, Sphere minimum standards can be used as benchmarks to determine performance and service quality.

BRAINSTORM: INDICATORS FOR OUTPATIENT CARE. Ask participants, still working in pairs, to take five minutes to list performance and output indicators for outpatient care. Remind participants of the work they did in developing logical frameworks in **Module Seven**. Ask one pair to share some indicators and ask other groups to share only additional information. Write responses on the flip chart.

READING AND REVIEW: CMAM INDICATORS. Refer participants to **Handout 8.8 CMAM Indicators** and ask them to read quietly. When they have finished, ask them if they have any modifications for the indicators identified in the exercise above.

GROUP DISCUSSION: PROGRAMME EFFECTIVENESS. Ask participants how the CMAM service/programme is effective. Follow up by asking participants whether the CMAM service/programme can be considered effective if only half the children who require treatment actually access it. (Service performance plus coverage determines programme effectiveness).

PARTICIPATORY LECTURE: COVERAGE. Explain to participants that it is important to determine coverage levels to see whether the service/programme is reaching children who need treatment. Coverage is one of the most important indicators of how well a service is meeting needs. A service might be of very good quality, with very few deaths, low default rates and high recovery rates. But, if the service is reaching only 30 percent of the children who need treatment, then it cannot be considered successful. The aim is to achieve both good quality and good coverage.

Ask participants to read **Handout 8.9 Principles of Coverage**. Pay particular attention to the graph in **Figure 1**, noting the direct correlation between coverage rate, recovery rate and met need. Remind participants that they can use **Handout 8.9** as a reference in their own work.

Coverage is expressed as a percentage. If there are 100 children with acute malnutrition living in a service area and 70 of them are in the service, then coverage is 70 percent.

Ask participants to refer to **Handout 1.2 Terminology for CMAM** and read the definition of “coverage ratio.” Ask if there are any questions.

PARTICIPATORY LECTURE: COVERAGE SURVEYS. Explain that coverage is usually determined by conducting a coverage survey. The coverage survey methods called Semi-Quantitative Evaluation of Access and Coverage (SQUEAC)/ Simplified Lot Quality Assurance Sampling Evaluation of Access and Coverage (SLEAC) are commonly used in CMAM. SQUEAC combines routine program monitoring data, an array of qualitative information, and small-sample quantitative surveys. This combination of data permits identification of key issues. SLEAC is a small-sample quantitative method for mapping and estimating coverage over large areas; it is a low-resource method for *classifying* and *estimating* the coverage of selective feeding programmes. The two methods are normally used together. For more information on SQUEAC/SLEAC, refer participants to this technical reference on the methods: <https://www.fantaproject.org/monitoring-and-evaluation/squeac-sleac>. Also, let participants know that new techniques for assessing access and coverage that are less resource-intensive are under development.

Coverage surveys can provide a lot of information about why children do not attend the service, why some might be excluded and what the possible barriers to access are. However, coverage surveys are costly and require specially trained staff. The need to find simple mechanisms to gauge coverage levels in situations where coverage surveys are not practical or feasible is recognised. Simplified coverage survey methods are being developed and tested.

In the absence of coverage surveys, some services have used simple, somewhat crude, methods to monitor coverage based on targets calculated for the total number of children expected to enrol. Others have used the number of children screened, referred or admitted as proxies. These are not ideal indicators, but they might provide some useful information when a coverage survey is not feasible.

Ask participants to refer to **Handout 1.2** and to read the definition for “coverage,” Ask if there are any questions.

Module 8 Learning Objective 5: Monitor and Respond to Barriers to Access

TRAINER: Become familiar with **Handout 8.10** Monitoring Barriers to Access and **Exercise 8.3** Community Meeting Role-Play.

GROUP DISCUSSION: BARRIERS TO ACCESS. Ask participants to speculate on possible reasons for poor coverage. Discuss how views and perceptions of the service can play a part in poor service uptake. Discuss barriers to access and remind participants of the work they did in the community assessment in Module Three. Review if necessary.

Ask participants to read **Handout 8.10 Monitoring Barriers to Access**; answer any questions.

ROLE-PLAY. INVOLVING THE COMMUNITY. Introduce the exercise to the participants by reading aloud the following introduction:

The site report from the outpatient care at Health Facility 22 (Wambala district) shows a high default rate (20 percent) and a high death rate (12 percent). The health care providers at the outpatient care site are concerned about this. They also know that the mothers/caregivers of many of the children that they referred to inpatient care at the district hospital refuse to go; the health care providers suspect that the high default and mortality rates are linked to this. The nurse asks the community health worker (CHW) to organise a community discussion to get to the bottom of these issues and try to find ways to address them.

Ask for nine volunteers and assign these roles: an outpatient care nurse, a CHW and a community volunteer involved in community outreach for CMAM, two mothers, a father, a grandmother of children under treatment in CMAM, a community elder and a traditional healer. **Exercise 8.3 Community Meeting Role-Play** (below) describes the roles. Give each volunteer a card describing her/his role (prepared in advance) and ask them to start the “community meeting.” Tell them that roles can be adapted and they should feel free to improvise.

After 20 minutes, ask participants how they would use what they learned from the community meeting to make changes to the services. Refer to **Exercise 8.3 Answer Key** at the end of this learning objective to guide the discussion.

Exercise 8.3 Community Meeting Role-Play

Outpatient Care Nurse: You are a nurse at the health facility in charge of outpatient care and ask the CHWs to explore the issues that lead to high default and death rates. You also take an active role in reviewing outpatient care treatment cards and monitoring reports to identify possible causes for poor performance.

CHW: You note that the people in your community refuse to go to the hospital for inpatient care for several reasons: They do not like the hospital; they are afraid they will have to pay for the services; they have no transportation or cannot cover the costs; or they do not want to leave their other children. Refusal to go to the hospital is why several children have died.

Community Volunteer: You are a very active volunteer. There are many defaulters in your area because it is in a part of the district that is farthest from the outpatient care site. You think that either an outpatient care site closer to your community is needed or that people from your area should be able to

come to the existing site every two weeks instead of every week. Because there is no other health facility in your area, you wonder if a nurse can use the health facility motorbike and bring the RUTF directly to your area. There also are some issues with referrals using bilateral pitting oedema and the MUAC tape. Sometimes you send a child because she/he has bilateral pitting oedema or the MUAC reading is red, but the nurse makes a different decision and sends the child home. You think that volunteers need more training to prevent these discrepancies and feel that if a volunteer refers a mother/caregiver and child to CMAM services, the child should be admitted.

Mother 1: You like the CMAM services and know that other people's children got better in the service. Your son had swelling on his feet and legs. You took him to the clinic and got the peanut paste and medicine. You shared the peanut paste with your six other children because it is the hungry season and there is not much food in the house. Your sick son ate maize as well as some of the peanut paste, but the maize was not so good because it had been stored for a long time. After three weeks, your son became very swollen all over his body, and when you went for the outpatient care follow-on session, the nurse wanted to send you to the hospital. It is very far away, and everyone you know who goes there dies. The hospital costs a lot of money, and you have no transportation. You want your son to get better in outpatient care, not in the hospital, and you do not understand why the nurse said your son needs to go there. Last week, you did not take your son to the outpatient care site because you didn't want to be told to go to the hospital again.

Mother 2: You were referred to CMAM services by community volunteers. They took a measurement of your daughter using a tape and then put their thumbs on her feet. They said that she had swelling on her feet and that you should take her to the outpatient care site. When you got there, the nurse measured your daughter and looked at her feet again. The nurse said she was fine and did not need to be in the service. You were angry and told everyone not to bother with this service. You know nearly every mother in your village.

Father: Your -8-month-old twins are in outpatient care. One twin was sick and the other was not, but they both received the special food. The sick one took the medicine given to her in outpatient care and recovered well. You live far from the outpatient care site, and your wife has to carry both children on her back to get them to the site. She had to miss three weeks at the outpatient care site because of the distance. A community volunteer visited you and your wife and told you how important it was to take the children back to the clinic. So, your wife went back the next week, and the children continued to recover. You know other people from your area who are attending the service but do not go every week because it is too far away. One child from your area died because he got suddenly very sick and the family could not get him to the clinic in time. You wonder if it is possible to go to the clinic every two weeks instead of every week. You are very happy with the services and have told the men in your village to send their wives and children to the outpatient care site.

Grandmother: Your daughter died and you were left with four of her children, including the youngest—a four-month-old baby. The baby got very sick and thin. You tried feeding the baby cow's milk mixed with water, but the baby got worse. You took the baby to the health facility and the nurse told you that the baby was dehydrated and very malnourished (thin) and needed attention at the hospital. You cannot get to the hospital or stay there because of the other children at home and because you are old and cannot walk far. Two days later, the baby died.

Community Elder: You like the CMAM services. You remember the bad time three years ago when people came and set up tents, and all the swollen and thin children were supposed to go there. Many of them did not go, and many of them died. Now mothers/caregivers can take their children to the outpatient care site at the nearby health facility and get the treatment; everything is good. You have listened to what the others have said about the problems with getting to the hospital. You suggest that the village health committee set up a fund to help provide transportation to the hospital for mothers/caregivers and children who need it.

Traditional Healer: At first, you were very resistant to the idea of the CMAM services and wondered what this strange peanut paste was. Usually mothers and fathers would bring their children to you first and go to the health facility as a last resort. You have your own traditional treatment for thin and swollen children. However, you have seen the children getting better when they go to the health facility. The CHW has taken time to explain to you how CMAM services work, and the community volunteers have shown you a lot of respect. They asked for your help in sending thin or swollen children to CMAM services. You agree with the community elder. You think the village health committee (in which you have a key role) should meet to discuss setting up a transportation fund. You also think that people coming from faraway areas should only have to go to outpatient care sites every two weeks and that the volunteers should send them to the health facility if there is any problem between sessions.

Exercise 8.3 Answer Key

Possible service adjustments based on group discussion with community members:

Communications

- Make a better effort to explain that admission in outpatient care does not always involve referring the mother/caregiver and child to the hospital (because the fear of outcomes there and of the cost is apparently very strong in the community). Be sure to explain that outpatient care is free.
- Further explain that the mother and her infant under 6 months of age will receive skilled feeding support while in outpatient care. Breastfeeding is extremely beneficial to an infant under 6 months of age because breast milk contains all the nutrients (food) and water the infant needs to grow well.
- Make sure that volunteer case-finders are taking care to explain that after the child's medical condition is evaluated at the outpatient care site, the child might need referral to inpatient care if her/his condition is serious. Most children will be treated as outpatients.
- Reiterate that RUTF is not to be shared. A child who eats all the RUTF gains weight and is less likely to get sick and be referred to the hospital.

Procedures

- To reduce bounced referrals, align both referral and admission around the MUAC entry criterion, if this is not already the case.
- In the short term, allow people from distant villages to return for outpatient care follow-on sessions twice a month and give them two weeks' worth of RUTF.
- In the intermediate term, consider opening more sites to provide weekly outpatient care follow-on sessions within everyone's reach.
- Give volunteers refresher training in bilateral pitting oedema and MUAC checks to improve the accuracy of referrals. Consider introducing a referral slip that identifies the referring volunteer to pinpoint the source of inaccurate referrals.
- Institute procedures for case follow-up to ensure that children who miss an outpatient care follow-on session are visited at their homes (follow-up home visit) and that the families are urged to return to the service.
- Give the outpatient care nurse the discretion to keep children with medical complications in outpatient care if, after making the risks clear to the mother/caregiver, she/he still refuses referral to inpatient care.
- Use the village health committees to establish wider contact with traditional healers to discuss the CMAM service with them, listen to any concerns they have and encourage them to be trained in referring cases of SAM.
- Encourage the village health committees to follow up on the suggestion of establishing a fund to cover costs related to referral between inpatient care and outpatient care (e.g., transportation). Use **Exercise 8.3** as an example of local problem-solving in discussions with other sites and villages.

Module 8 Learning Objective 6: Explain the Purpose of Support and Supervision Visits and the Role of a Supervisor/Mentor

TRAINER: Become familiar with **Handout 8.11** Support and Supervision for CMAM, **Handout 8.12** Support and Supervision Checklist for Outpatient Care, **Handout 8.13** Support and Supervision Checklist for Community Outreach and **Exercise 8.4** Analysis of the Site Reports of Three Outpatient Care Sites and One Inpatient Care Site.

WORKING GROUPS: DEFINING SUPERVISION AND SUPERVISOR RESPONSIBILITIES. Form working groups of five participants. Ask the groups to:

1. To define the term “supervision”
2. List the responsibilities of a supervisor (or supervisory team)
3. Determine who should be responsible for supervision of CMAM in their districts
4. Describe how supervisory visits are usually conducted in their districts and how supervision for CMAM fits into the existing supervision system

Ask one group to share their answers in plenary and other groups to share only additional information. Refer participants to **Handout 8.11 Support and Supervision for CMAM** and ask them to read it quietly and to discuss in their groups any additional information they would add to the previous discussion. Discuss this information in plenary. Note that supervision is not limited to evaluating performance but is a great opportunity to mentor and provide technical support to the staff.

GROUP DISCUSSION: SUPPORT AND SUPERVISION CHECKLISTS. In plenary, ask participants what kind of information they would expect to see on a support and supervision checklist for outpatient care. Remind them, one topic at a time, to think through staffing, admission procedures, medical and nutrition therapeutic care, follow-up for absentees and defaulters, inventory control and discharge procedures. Refer participants to **Handout 8.12 Support and Supervision Checklist for Outpatient Care** and review. Refer them to **Handout 8.13 Support and Supervision Checklist for Community Outreach** for future reference.

WORKING GROUPS: ANALYSIS OF CONSOLIDATED SITE REPORTS. With participants in the same working groups, distribute **Exercise 8.4 Analysis of the Site Reports of Three Outpatient Care Sites and One Inpatient Care Site** and have participants discuss the reports within their groups. Using the site and consolidated reports, ask participants to think through any conclusions that can be drawn about the sites, performance and coverage issues, and what kind of follow-up information they would need to make appropriate decisions in response. You could suggest that they compare caseloads, common admission criteria, admission and referral patterns, and reasons for and rates of discharge among sites. If appropriate, give an example or two from **Exercise 8.4 Discussion Key**, below. Check in with each working group and, if their conversation is lagging, provide them with additional conclusions to determine the key questions to address. When groups have had time to discuss, ask one group to report a conclusion and what additional information is needed, in plenary. Ask another group to provide an additional conclusion, etc.

Note to participants that specific discharge rates from the inpatient care site are not calculated. Infants and children who improve are referred to outpatient care to continue treatment. The specific discharge rates would not reflect poor quality as they include ONLY those children with SAM who had medical complications. This is one reason why the service/programme must be evaluated as a whole, combining information from both inpatient care and outpatient care as presented in the combined reporting sheet.

Exercise 8.4 Analysis of the Site Reports of Three Outpatient Care Sites and One Inpatient Care Site (Discussion Key)

Conclusions Drawn From Reports	Questions or Possible Explanation to Verify
1. Health centre B has more patients than the other centres.	1. Is this normal? Does it cover a highly populated area or a very wide area? What are the walking distances to the centre? Is this centre manageable? Could a second centre be opened with existing resources?
2. At health centre C, more than half the admissions are from bilateral pitting oedema.	2. Is this normal? Are the other health centres neglecting this diagnosis? Or, the opposite—is there an over-diagnosis of bilateral pitting oedema here? Is this health centre in a different food economy area? Was the same observation made in previous months and in surveys?
3. Out of the overall 246 new admissions, 227 were admitted directly to outpatient care (92.3%) and 19 to inpatient care (7.7%).	3. This could be an indicator of the efficacy of “early detection” and therefore of the quality of community mobilisation. It also could indicate that children with serious conditions are hidden at households and are not reached.
4. Health centre A is not referring any patients to inpatient care.	4. This could mean that no patients required transfer, but it should be checked through supervision.
5. The death and non-recovered rates in health centre A are quite high for outpatient care.	5. This raises questions about the quality of the assessment of patients in this centre and the application of and adherence to treatment and action protocols.
6. Health centre B’s default rate is quite high and warrants follow-up to determine the reasons.	6. Perhaps mothers/caregivers decide not to return because waiting times or walking distances are too long. It will be necessary to visit the centre to determine the reasons.
7. Health centre C’s cured rate is good although there are questions about the non-recovered rate.	7. Is this related to the number of cases with bilateral pitting oedema, noted above? Could this be investigated?
8. Overall, 211 children left outpatient care during the month; 200 of these children were discharged. However, 11 were referred back to inpatient care, meaning that the conditions of 5.5% of the children under treatment in outpatient care deteriorated.	8. Why is the condition of children deteriorating when under treatment in outpatient care? Is there compliance to medicine and RUTF protocols? What health and nutrition messages are mothers/caregivers receiving? Are there other underlying health conditions that must be addressed?
9. While 17 children were referred from inpatient care to outpatient care, the outpatient care sites admitted only 14 children referred from inpatient care. Note that 11 patients were referred from outpatient care to inpatient care and 11 admissions are registered in the inpatient care site report as referred from outpatient care.	9. The difference between referrals from inpatient care and admissions to outpatient care could be due to a weak registration system or because some referred children did not go to the outpatient care sites. This observation should trigger closer assessment and supervision of the registration and referral system (e.g., the use of referral slips, the provision of transportation, the messages and explanations given to the mother/caregiver at the time of referral). Note that children who were referred left the site where they were being treated but did not leave the service/programme. The compiled number of cases under treatment in the district is 209, which counts 9 cases less than the sum of the individual report. This difference is due to the 3 missed referrals. Other missed cases may have been in transit while referred across

	months (Note: this could be a shortcoming in the exercise and if this is repeated at the district level in the field, it should be reported for review of the compilation system).
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Note: The specific discharge rates from the inpatient care site are not calculated. Children that improve are referred to outpatient care to continue treatment. The specific discharge rates would not reflect poor quality as they include ONLY those children with SAM that had medical complications. This is one of the reasons why the programme needs to be evaluated as a whole, combining information from both inpatient and outpatient care as presented in the combined reporting sheet, where the performance indicators provide information of the CMAM service in the district for the management of SAM.

Module 8 Learning Objective 7: Prepare an Outline for CMAM Reporting

TRAINER: Become familiar with **Handout 8.14 Guidance on CMAM Reporting**.

WORKING GROUPS: DISCUSS CMAM REPORTING NEEDS AND DRAFT AN OUTLINE. Form working groups of five participants. Ask the groups to:

1. Discuss needs and use of CMAM reports:
 - Who needs and who uses the report for what purposes
 - Who prepares the report?
2. Draft an outline for minimum reporting on CMAM and discuss the existing monitoring tools and how they feed information into the report

Ask one group to share in plenary and other groups to share only additional information. Refer participants to **Handout 8.14 Guidance on CMAM Reporting**, ask them to read it quietly and to discuss in their groups any information they would add to their outline.

OPTIONAL ACTIVITY

EXTERNAL TRAINING: USING AN ELECTRONIC DATABASE. At the district level, coordinate a special training session on how to set up a CMAM monitoring system using an electronic database in Excel. If possible, ensure that there are sufficient computers available for participants to work in pairs. Become familiar with **Supplemental Reference 8.1 Setting Up a CMAM Monitoring System Using an Electronic Database in Excel and Using a CMAM mHealth Application** and have participants review this reference before the activity. Bring copies of completed site tally sheets, site reporting sheets and lists of outpatient and inpatient care sites (with names and locations of health facilities); pass them out to participants. Using **Supplemental Reference 8.1**, go through the setup step by step, making sure that participants understand the content and management of the software.

Module 8 **Wrap-Up and Module Evaluation**

SUGGESTED METHOD: Review learning objectives and complete evaluation form. Review the module's learning objectives.

In this module you have:

- Described the principles of monitoring and reporting on CMAM
- Described how the individual infant or child is tracked and monitored in CMAM
- Completed site tally sheets and site and district reports, and interpreted the findings
- Calculated and discussed service/programme performance and coverage
- Monitored and responded to barriers to access
- Explained the purpose of support and supervision visits and the role of a supervisor/mentor
- Prepared an outline for CMAM reporting

Ask for any questions and feedback on the module.

Ask the following review questions:

- How are individual infants and children tracked in a CMAM service?
- What information is collected on site tally sheets and site and district reports?
- What indicators are used to determine service performance?
- What are the roles and responsibilities of supervisors in outpatient care?
- Discuss and clarify.
- Let participants know that they will have an opportunity to observe procedures and discuss them with staff during the field visit.
- Ask participants to complete the module evaluation form.

MODULE 8 MONITORING AND REPORTING ON CMAM: OUTPATIENT CARE FIELD PRACTICE FOR HEALTH CARE PROVIDERS

Overview

- A maximum of five participants should be at each outpatient care site on a given day. Coordinate with as many outpatient care sites as necessary to keep the number of participants at five or fewer.
- This site visit is best conducted on one of the final days of the training, after observing and practicing outpatient care activities at a health facility. Participants must be knowledgeable in all aspects of outpatient care.
- The supervision checklist is long so it can be broken into several sections, allowing different participants to “supervise” different activities during outpatient care.
- Pair participants with someone who speaks the local language.

Learning Objectives	Handouts to Bring to the Outpatient Care Field Practice
Observe and Help the Outpatient Care Site Team Complete Site Tally Sheets from the Individual Outpatient Care Treatment Cards	Handout 8.3 Monitoring and Reporting on CMAM
Review a Site Tally Sheet and the Previous Month’s Site Report and Discuss With Staff How to Use and Interpret Data	Handout 8.8 CMAM Indicators
Review the System for Recording RUTF Distribution and Stock Levels	Handout 8.12 Support and Supervision Checklist for Outpatient Care

Preparation for the Outpatient Care Field Practice

- Discuss and review the procedures and steps that participants will undertake at the outpatient care sites:
 - Observe and help the outpatient site team complete site tally sheets from the individual outpatient care treatment cards
 - Calculate the number of clients enrolled in CMAM and double-check it against the number of cards
 - Review a completed site tally sheet and the previous month’s site report and discuss what they reveal about the service/programme (e.g., recoveries, defaults, deaths, anything surprising)
- Bring copies of **Handout 8.12 Support and Supervision Checklist for Outpatient Care** in case the outpatient care site does not have any for the participants to complete.

Module 8 **FIELD PRACTICE LEARNING OBJECTIVE 1: OBSERVE AND HELP THE OUTPATIENT CARE SITE TEAM COMPLETE SITE TALLY SHEETS FROM THE INDIVIDUAL OUTPATIENT CARE TREATMENT CARDS**

HANDS-ON ACTIVITY AT SITE: Help outpatient care site staff complete site tally sheets.

OPTIONAL ACTIVITY (IF TIME PERMITS): Review a Sample of Outpatient Care Treatment Cards
Review samples of outpatient care treatment cards and note the general profiles of the children in the service:

- Are most cases admitted on bilateral pitting oedema or low MUAC?
- What are the main ages of infants and children in the service/programme?
- Are there many returned defaulters or relapse cases?
- Do many infants and children come from inpatient care?
- Are many infants and children referred to inpatient care?
- Do many infants and children require follow-up home visits?
- How are follow-up home visits noted on the outpatient care treatment card?

Module 8 FIELD PRACTICE LEARNING OBJECTIVE 2: REVIEW A SITE TALLY SHEET AND PREVIOUS MONTH'S SITE REPORT AND DISCUSS WITH STAFF HOW TO USE AND INTERPRET DATA

ACTIVITY: REVIEW SITE TALLY SHEET AND DISCUSS RECOVERY AND DEFAULT WITH STAFF

Method: Hands-on review at site

- With the outpatient care site staff, review site tally sheet and the previous month's site report.
- Discuss together recovery and default.
- Discuss with health facility staff:
 - What is the service/programme's response to poor recovery, death, and default rates?
 - What is the process for reporting on follow-up home visits in problem cases?
 - What is the system/process for reviewing the cases who died that month?
 - What are the challenges with referrals and monitoring of individuals between sites and services?

Module 8 FIELD PRACTICE LEARNING OBJECTIVE 3: REVIEW THE SYSTEM FOR RECORDING RUTF DISTRIBUTION AND STOCK LEVELS

HANDS-ON REVIEW AT SITE: REVIEW WITH STAFF SYSTEM FOR RECORDING RUTF DISTRIBUTED, IN STOCK AND PROCUREMENT

- With staff, review RUTF: distribution, in-stock and procurement.
- Go over a supervision checklist within small groups.
- Fill out (parts of) a supervision checklist based on observed activities linked to supplies at outpatient care.

ACTIVITY: FEEDBACK ON FIELD PRACTICE SESSIONS

Method: Feedback/Discussion

After each field practice, conduct a feedback session in which participants will:

- Provide feedback on strengths observed at each health facility
- Raise issues for clarification by facilitators
- Identify key gaps that need more practice/observation time or additional classroom time for practice with forms, calculations, etc.
- Discuss how you would mentor the staff to improve performance

