

The Republic of South Sudan



COMMUNITY MANAGEMENT OF ACUTE MALNUTRITION

CMAM GUIDELINES



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December 2017



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Acknowledgments

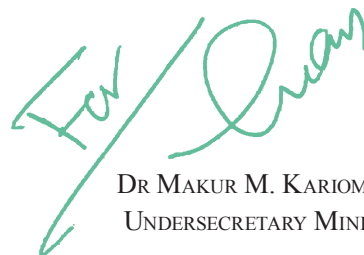
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UNDERSECRETARY MINISTRY OF HEALTH



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Guidelines for Community Management of Acute Malnutrition



Foreword

Malnutrition, especially under-nutrition, continues to be one of the major health problems in the Republic of South Sudan. Nearly a third (31%) of the children under five years of age are chronically malnourished (stunted) and 28% are underweight. The prevalence of acute malnutrition is equally high (Global Acute Malnutrition (GAM) at 23% and Severe Acute Malnutrition (SAM) at 10%); with health facilities reporting it among the top ten health conditions seen in outpatient departments (OPD).


These unacceptable indicators are sustained by food insecurity arising from poor food production capacity of families, poor health and nutrition practices and habits, insecurity and vagaries of nature. The Ministry of Health is aware of the multi-sectoral nature of the problem of malnutrition and is ready to engage with the other partner ministries of government and development partners towards tackling the problem.

The National Health Policy (2016-2025) and the Health Sector Strategic Plan 2016-2019 (draft) have articulated the resolve of the government and the Ministry of Health in tackling malnutrition as a major health problem at community and health facility levels. It is in this spirit that the guideline for the Community Management of Acute Malnutrition (CMAM) was developed, to ensure quality training for health and nutrition workers as well as nutrition services at both community and facility levels.

This guideline is comprehensive, and is intended for the management of acute malnutrition along the continuum of care, across three components of CMAM (community, outpatient therapeutic care [OTP] and supplementary feeding programme [SFP]). It is written in a plain language for use by health and nutrition workers at all levels of the primary health care system, trainers, supervisors, NGOs and Civil Society for their purposes.

The guideline will be followed by a specific training package, standard operating procedures and charts for the community, SFP and OTP health and nutrition workers.

It is our hope that, this guideline will form the basis for all future programming for the management of acute malnutrition in the Republic of South Sudan. I call upon all actors in the health sector to align their interventions with the provisions of the guideline.



DR RIEK GAI KOK
HON. MINISTER OF HEALTH
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Definition of term(s):

Acute malnutrition/ wasting - Defined by low Mid-Upper Arm Circumference [MUAC], and/or low Weight-for-Height/Length [WFH/L]), or the presence of bilateral pitting oedema. It is usually associated with a (sudden) decrease in food consumption and/or illness resulting in sudden weight loss and /or bilateral pitting oedema.

Anthropometry - The use of body measurements to assess the nutritional status of an individual. Body measurements include: mid upper arm circumference (MUAC), weight, and height/length. Though age, sex, and bilateral pitting oedema (fluid retention) are not body measurements, they are important parameters in taking anthropometry.

Bilateral Pitting Oedema - Swelling caused by the accumulation of fluid in the body tissues. Oedema due to acute malnutrition is always bilateral (on both sides of the body) and pitting (leaving a dent when applying pressure), and can be classified as 1) Mild (+): oedema in both feet/ankles; 2) Moderate (++) : oedema in both feet plus lower legs, hands or lower arms; 3) Severe (+++) : generalized oedema including both feet, legs, arms and face.

Blanket Supplementary Feeding Program (BSFP) - A nutrition program designed to prevent acute malnutrition in vulnerable groups by providing energy, micronutrients, and nutrient dense supplementary foods to ALL individuals in a vulnerable group in the population usually for a defined period of time (e.g. hunger gap).

Cases with acute malnutrition - Any individual, whether child or adult, that is undergoing treatment for acute malnutrition.

Community Health Workers (CHWs) - These are cadres based at the PHCUs and PHCCs. They support both static and outreach OTP/TSFP services and among other duties, are responsible for supervising activities of Home Health Promoters (HHPs). Depending on context, CHWs may also support BSFP services.

Community Management of Acute Malnutrition (CMAM) - A community - health facility linked approach for the treatment and rehabilitation of cases with severe and moderate acute malnutrition

Community mobilization - Is defined as a capacity building process through which individuals, groups, or organizations either on their own initiative or stimulated by others, plan, carry out, and evaluate activities on a participatory and sustainable basis to improve their health and other needs (Howard G. and Snetro, 2004). As applied to nutrition services, community mobilization is a term used to cover a range of activities that help nutrition program implementers (i.e. nutritionists, managers and health workers) build a relationship with the community and foster the uptake/use of nutrition services.

Community sensitization - A way to reach out and educate people in a community on the causes, signs and symptoms of malnutrition, how to seek treatment opportunities, and get involved in nutrition programmes for improved health and nutrition status.

Cured - A patient in the CMAM programme that has recovered from acute malnutrition for which s/he was treated.

Defaulter - A case with acute malnutrition who leaves the program before being cured from acute malnutrition for which s/he was treated; the patient missed 2 consecutive visits for OTP/TSFP, or missed 2 consecutive days while admitted in SC/ITP.

Died - A case with acute malnutrition who dies while registered in the CMAM programme.

Emergency - Extraordinary, urgent, and sudden situations that require immediate intervention to avert stress, morbidity and death.

Emergency nutrition interventions - Nutrition interventions/immediate actions geared towards saving lives.

Evaluation - A process that objectively determines the relevance, effectiveness, efficiency and impact of activities in light of specified objectives.

Global acute malnutrition (GAM) - A measurement of the nutritional status of a population. Along with the Crude Mortality Rate, it is one of the basic indicators for assessing the severity of a humanitarian crisis. It is

an aggregate of moderate and severe acute malnutrition, so the total proportion of SAM cases + MAM cases in a specific population)

Home Health Promoters (HHPs/volunteers) - People living within the community who have been selected and are willing to spend time providing health and nutrition services to their neighbours without formal employment or pay. Compensation can be given in kind or/and with regular training.

Hypoglycaemia - Low blood sugar (<3mmol/l) or < 54mg/dl

Hypothermia - Low body temperature (<35.0 °C - axillary or <35.5 °C - rectal)

In-patient care -

- Health facility based care for patients with SAM with medical complications (e.g. SC/ITP)
- Health facility based care for MAM with medical complications (only for the treatment of the specific illness).

In-patients - Patients admitted to an in-patient facility for a specific period of time during treatment.

Malnutrition - A condition that develops when the body does not get the right amount or type of nutrients it needs to maintain healthy tissues and proper body functions. Malnutrition is a broad term that refers to both over-nutrition and under-nutrition.

MAM with medical complications - MAM with medical complications, and/or with no appetite (determined from history taking), or with other IMNCI danger signs requiring in-patient care.

Mean - The average.

Micronutrient deficiencies - Form of malnutrition due to lack of essential micronutrients (minerals and vitamins) required by the body for proper growth, development, and performance of other body functions. The most common micronutrient deficiencies include Iron Deficiency Anaemia (IDA), Vitamin A Deficiency (VAD), and Iodine Deficiency Disorders (IDDs).

Moderate Acute Malnutrition (MAM) - Description of under nutrition (wasting) level. For children 6-59m, it encompasses children ≥ -3 z- scores and < -2 z- scores (WFH/L) or MUAC ≥ 11.5 cm and < 12.5 cm. Children with MAM are at 3 times greater risk of mortality compared to well-nourished children, and face greater risk of morbidity from infectious diseases and delayed physical and cognitive development.

Monitoring - Periodic oversight of the implementation of an activity, seeks to establish the extent of which inputs, work schedules, and targeted outputs are proceeding according to plan.

Mother/caregiver - Mother or guardian responsible for the child attending any nutrition programme.

MUAC - Mid Upper Arm Circumference is a highly sensitive and specific indicator used to measure acute malnutrition and to determine SAM and MAM cases for admission to treatment.

Non respondent - Case with acute malnutrition who is not responding to the treatment provided within 4-7 days in SC/ITP; within three months or six months for people infected with HIV/TB in the OTP; in TSFP within three months or six months for people infected with HIV/TB.

Nutrition - A broad term that refers to the processes involved in ingestion (taking in of food), digestion, and utilization of food by the body for growth and development, reproduction, physical activity, and maintaining health.

Nutrition education - Process of imparting knowledge, designed to increase education/awareness, change attitudes, and promote positive behaviours and practices for adequate health and nutrition of individuals and communities.

Nutrition emergency - Classification based on the severity of the emergency using GAM levels in the population as an indicator of stress as follows:

SEVERITY	PREVALENCE OF GAM
Acceptable	<5%
Poor	5-9%
Serious	10-14%
Critical	$\geq 15\%$

Source: WHO (2003)

Nutritional index - Compares an individual's body measurement with expected values. Nutritional indices are calculated by comparing an individual's measurements with that of a reference population. The nutritional indices commonly calculated for young children are:

- **Mid Upper Arm Circumference (MUAC)** - a measure of wasting or acute malnutrition; (note: MUAC by itself is not an index, but it is an important measure of nutritional status; indices of MUAC with age, sex and/or height are not commonly used in nutrition programmes)
- **Weight for height** - a measure of wasting or acute malnutrition;
- **Weight for Age** - a measure of underweight or combination of wasting and stunting;
- **Height for Age** - a measure of stunting or chronic malnutrition.

Nutritional status - Refers to the state of a person's health in terms of nutrients in their body. It is a measurement of the extent to which individual physiological needs for nutrients are met.

Oedema - See bilateral pitting oedema

Out-patient Therapeutic Programme (OTP) - A nutrition programme designed for nutritional treatment and medical care for SAM without medical complications at an outpatient care site.

Out-patients - People without medical conditions who are admitted to an outpatient care facility to treat their acute malnutrition. The treatment is managed at home, with regular follow up at an OTP/TSFP at a health facility or at a designated site in the community.

Ready-to-use supplementary food (RUSF) - Pre-packaged energy and nutrient dense product designed to treat MAM without medical complications.

Ready-to-use therapeutic food (RUTF) - Prepackaged energy and nutrient dense product designed to treat SAM without medical complications. Equivalent to F100.

Referral for medical investigation (medical transfer) - Cases with acute malnutrition who are referred from the CMAM programme to another health facility for medical investigation and care (not in any nutrition programme).

Severe Acute Malnutrition (SAM) - Defined by a very low weight for height (below $-3z$ scores of the median WHO growth standards), by visible severe wasting, or by the presence of nutritional oedema.

SAM with medical complications - SAM with medical complications, and/or with no appetite (failed appetite test for RUTF), or with other IMNCI danger signs requiring in-patient care.

Severe anaemia - Low haemoglobin levels < 4.0 g/dl (40g/l) or packed cell volume (PCV) $<12\%$.

Septic (or toxic) Shock - A dangerous condition presenting with severe weakness, lethargy, or unconsciousness, cold extremities, weak or fast pulse. Difficult to diagnose in a malnourished child as symptoms are not the same as in a well-nourished child and are similar to symptoms of dehydration plus weak pulse and cool/cold hand and feet, and poor capillary refill in nail beds (>3 sec)

Stabilization Centre (SC)/In-patient Therapeutic Programme (ITP) - A nutrition program designed for provision of health facility based (in-patient) nutritional treatment and medical care for SAM cases with medical complications and/or with no appetite.

Standard Deviation (SD) - a measure that is used to quantify the amount of variation or dispersion of a set of data values (also see **z-score**)

Stunting (or chronic malnutrition) - **Stunting** is the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psychosocial stimulation. Children are defined as stunted if their height-for-age is more than two standard deviations below the WHO Child Growth Standards median.

Targeted Supplementary Feeding Programme (TSFP) - A nutrition programme designed for treatment of MAM in vulnerable groups (such as children 6-59m and PLW), uses specific energy and nutrient dense supplementary food rations and provides routine medical treatment at an outpatient site.

Transfer - Cases with acute malnutrition who are transferred within the same CMAM components (but different sites), or between different components to

continue treatment.

Triage - The selection/sorting of patients into priority groups depending on needs and resources available, with the aim of fast tracking treatment and increasing survival rates.

Under nutrition - Consequence of deficient energy and nutrient intake and/or absorption in the body. In the context of these guidelines, the term malnutrition relates exclusively to under-nutrition. The different forms of under-nutrition that can appear isolated or in combination are chronic malnutrition (or stunting), underweight, acute malnutrition (wasting and/or bilateral pitting oedema), and micronutrient deficiencies. These forms can be moderate or severe.

Underweight - A low weight-for-age (WFA) of a z-score below -2 SDs of the median (WHO standards). It is a composite form of under nutrition including elements of stunting and wasting. This indicator is commonly used in growth monitoring and promotion.

z-score – the number of standard deviations that the anthropometric value (such as height or weight) of an individual differs from the median value of the reference population (also see **standard deviation**).

ACRONYMS

ACF	Action Contre la Faim (Action Against Hunger)
ACT	Artemisinin- based Combination Therapy
AFOD	Action for Development
AIDS	Acquired Immunodeficiency Syndrome
ALOS	Average Length of Stay
ANC	Antenatal Care
ART	Anti-Retroviral Therapy
BHC	Boma Health Committee
BHT	Boma Health Team
BMI	Body Mass Index
BPHNS	Basic Package of Health and Nutrition Services
BSFP	Blanket Supplementary Feeding Programme
CBDs	Community Based Distributors
CH	County Hospital
CHD	County Health Department
CHWs	Community Health Workers
CMAM	Community Management of Acute Malnutrition
CMAM TWG	Community Management of Acute Malnutrition Technical Working Group
CPD	Continuous Professional Development
CSB	Corn Soya Blend
DHIS2	District Health Information System 2
EPI	Expanded Programme on Immunization
F100	Formula 100 therapeutic milk
F75	Formula 75 therapeutic milk
FAO	Food and Agriculture Organization
GFD	General Food Distribution
GMP	Growth Monitoring and Promotion
GOSS	Government of South Sudan
Hb	Haemoglobin
HFA	Height for age
HHPs	Home Health Promoters

HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
iCCM	Integrated Community Case Management
IDA	Iron Deficiency Anaemia
IDDs	Iodine Deficiency Disorders
IDPs	Internally Displaced Persons
IEC	Information, Education and Communication
IMNCI	Integrated Management of Newborn and Common Childhood Illnesses
ITP	In-patient Therapeutic Programme
MIYCN	Maternal, Infant and Young Child Nutrition
KAP	Knowledge, Attitudes and Practices
LLITN	Long Lasting Insecticide Treated bed Nets
MAM	Moderate Acute Malnutrition
MOH	Ministry of Health
MUAC	Mid Upper Arm Circumference
NCDs	Non Communicable Diseases
NSP	National Strategic Plan
NGO	National non-Governmental Organization
ODF	Open Defecation Free
OPD	Outpatient Department
ORS	Oral Rehydration Solution
OTP	Outpatient Therapeutic Programme
PDM	Post-Distribution Monitoring
PHCC	Primary Health Care Center
PHCU	Primary Health Care Unit
PLWs	Pregnant and Lactating Women
POC	Protection of Civilian site
PHC	Primary Health Care
PHCC	Primary Health Care Centre
PHCU	Primary Health Care Unit
PLW	Pregnant and Lactating Women with infant less than 6 months of age

PNC	Post Natal Care
RM	Resource Mobilization
RNA	Rapid Nutrition Assessment
RRM	Rapid Response Mechanism
RUIF	Ready to Use Infant Formula
RUSF	Ready to Use Supplementary Food
RUTF	Ready to Use Therapeutic Food
SAM	Severe Acute Malnutrition
SC	Stabilization Center
SCI	Save the Children International
SD	Standard Deviation
SDG	Sustainable Development Goals
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SRA	Simple Rapid Assessment
SSD	The Republic of South Sudan
SUN	Scaling Up Nutrition
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
ToT	Training of Trainers
TWG	Technical Working Group
TSFP	Targeted Supplementary Food Programme
UN	United Nations
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
U5MR	Under five mortality rate
VAD	Vitamin A Deficiency
WFA	Weight for Age
WFH/L	Weight-for-height/ length
VLBW	Very Low Birth Weight
WASH	Water, Sanitation and Hygiene
WFH	Weight for Height
WFP	World Food Programme
WHO	World Health Organization

Introduction

1.0	Background
1.1	Purpose
1.2	Specific objectives
1.3	Target and usage of the guidelines
1.4	Fundamentals of the management of acute malnutrition
1.5	Integration of CMAM services into primary health care services

1.0 Background

Maternal and child malnutrition is a significant public health problem in South Sudan. Among children aged 6-59 months, 31% are stunted, 28% are underweight, and nearly 23% are acutely malnourished of which 13% are estimated to suffer from moderate acute malnutrition and 10% from severe acute malnutrition.

In the absence of a single nation-wide nutrition surveillance system, NGO-implemented location specific SMART surveys and the government-UN collaborative Food Security and Nutrition Monitoring System (FSNMS) are currently the two best sources of information. Global acute malnutrition (GAM) rates vary seasonally and substantially across states; with peaks of up to 30 percent in some locations. Overall, South Sudan's nutrition situation is worrisome, with GAM persistently above the emergency threshold in the Greater Upper Nile, Northern Bahr el Ghazal and Warrap states. Though data on micronutrient deficiencies is scanty, Vitamin A Supplementation (VAS) among children 6-59 months stood at only 2.6% in 2010, showing low uptake (SHHS, 2010). This is against a backdrop of high morbidity levels and a negligible proportion of children 6 to 23 months receiving at least the recommended minimum acceptable diet. In order to ensure optimal child growth, it is essential to ensure good nutrition and basic health care from pregnancy through two years of age (the first 1000 days).

Management of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) was previously guided through the interim guidelines for Integrated Management of Severe Acute Malnutrition (IM-SAM) (2009), and the Draft Guidelines for Management of MAM (2011), respectively. These guidelines provided a framework for early identification, referral, treatment, and prevention of acute malnutrition. Over the years, there have been various developments and lessons learnt through their use, namely:

- Both guidelines focused mainly on treatment of acute malnutrition in children under-five years of age, and pregnant and lactating women with infants less than 6 months of age. Therefore, there was need to strengthen the component on the management of the increasing number of cases of acute malnutrition in the context of HIV/AIDS, tuberculosis (TB), Kala Azar and other chronic conditions/illness and in older people (≥ 60 years). Further, guidance on nutrition service delivery needed to be extended to address the root causes of malnutrition through prevention and promotion programs such as education and counseling services on optimal maternal, infant and young child nutrition (MIYCN) as well as water, sanitation and hygiene (WASH) practices among others.
- The implementation strategy's limited integration with the primary health care system, led to limited linkage with other treatment and prevention services at the health facility level, such as the Integrated Management of Newborn and Common Childhood Illnesses (IMNCI), Integrated Community Case Management (iCCM), Expanded Programme on Immunization (EPI), Antenatal Care (ANC)/reproductive

health, HIV and TB, among others;

- Existence of the guidelines as two separate documents was contrary to the MOH Policy Framework (2013-2016) direction to implement and ensure a continuum of care where nutrition services are offered holistically. Besides, the four components of CMAM are complementary to each other; hence having them in different documents distorted the continuum of care.
- The separate guidelines required harmonization into one guideline for the integrated management of acute malnutrition within the context of South Sudan, while adhering to the latest World Health Organization (WHO) and other global evidence based recommendations and best practices.

Cognizant of the above, The Ministry of Health (MOH) through the department of nutrition, developed these comprehensive and standardized guidelines for management of acute malnutrition in line with the basic package of health and nutrition services (BPHNS, 2011). These guidelines were developed in collaboration with partners, through a consultative process involving international and national technical experts.

1.1 Purpose

The purpose of these guidelines is to provide a standardized model as an operational reference for integrated management of acute malnutrition across all levels of the health care system, focusing on the following groups:

- Children under five years of age;
- Pregnant and lactating women (PLW) with infants less than six months old;
- Other vulnerable groups including children ≥ 5 years, adolescents, adults infected with (and exposed to) HIV/TB/Kala Azar and other chronic conditions/illnesses;
- Older people (60years and above).

1.2 Specific objectives

These guidelines aim to:

- Provide a framework for early identification, referral, quality treatment and prevention of acute malnutrition thereby reducing the associated mortality and morbidity among vulnerable groups;
- Build capacity of the MOH at all levels (health and nutrition staff at facilities), partner staff and other professionals in treatment and prevention of acute malnutrition;
- Promote a multisectoral approach to the prevention of malnutrition through strengthening linkages with other sectors.

1.3 Target and usage of the guidelines

- The guidelines for Community Management of Acute Malnutrition (CMAM) give useful and practical information for health and nutrition service providers at all levels of the healthcare system in the country. They are intended for use by:
 - Health and Nutrition Managers, Clinicians, Nutritionists, Nurses/Midwives and Home Health Promoters/Volunteers;
 - Training institutions in pre-service training of health and nutrition cadres. This contributes to standardization of treatment of acute malnutrition, particularly among new graduates joining the health and nutrition workforce.
- Appropriate care has been taken to make sure the recommendations outlined are consistent with other guidelines at the time of publication. The guidelines should always be implemented in consideration of the most recent recommendations from other relevant guidelines.
- To increase access to treatment of acute malnutrition, the individual components of CMAM can be implemented at different levels of healthcare, depending on capacity.

- The health and nutrition service providers need to apply the guidelines while adapting them to their individual patients'/beneficiaries' situations and local context.
- The health and nutrition service providers should be supported by the required level of training and with adequate resources to perform their activities and deliver treatment in a safe and effective manner.
- The guidelines are intended to be a reference material for health and nutrition workers including nutritionists, medical staff (clinicians, nurses/mid-wives) and other health and nutrition providers.
- Key protocols are provided in the annexes. Medical protocols are based on current national and international policies and protocols. A separate pack of protocols for community based service providers (home health promoters/volunteers) will also be available.

1.4 Fundamentals of the management of acute malnutrition

1.4.1 DIAGNOSING ACUTE MALNUTRITION

To diagnose acute malnutrition, we need to:

- Assess age and sex;
- Assess for presence of bilateral pitting oedema;
- Measure MUAC, weight and height/length;
- Use the indices: bilateral pitting oedema or MUAC cut offs or weight for height/length (WFH/L), body mass index (BMI) -for-age or BMI.

1.4.2 PATHOPHYSIOLOGY AND TREATMENT OF ACUTE MALNUTRITION

Pathophysiology and treatment of severe acute malnutrition

Severe acute malnutrition can result in profound metabolic, physiological, and anatomical changes. All organs and systems are involved in a “reductive adaptation” process due to nutrient shortage. Reductive adaptation is the physiological response of the body to under nutrition (i.e., systems slowing down to survive on limited macronutrients and micronutrients intake⁸).

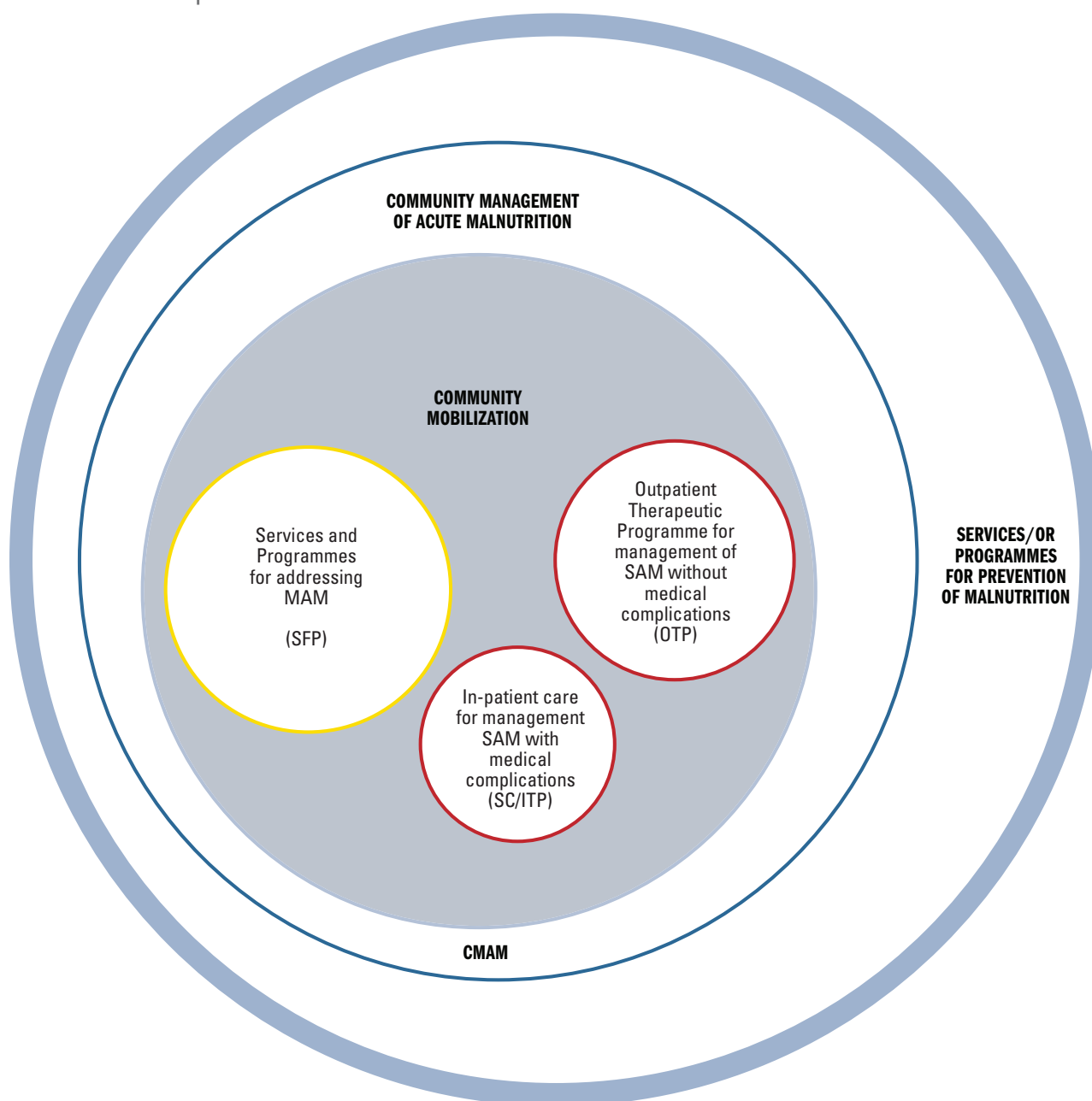
The pathophysiological responses to nutrient depletion place individuals with SAM at increased risk of life-threatening complications that lead to increased risk of death. Therefore, successful management of SAM requires both systematic medical treatment of underlying infections and nutritional treatment with therapeutic feeds (*for details refer to guidelines for in-patient management of SAM with medical complications*).

Pathophysiology and treatment of moderate acute malnutrition

Cases with MAM do not usually have profound changes in metabolism, physiology and immunological status as those with SAM. Further, though MAM cases are at an increased risk of death compared to well-nourished individuals, the increase is relatively small compared to the greatly increased risk for SAM cases⁹. For both these reasons, the treatment protocols for SAM and MAM are different. The diagnosis of illnesses is quite straightforward for MAM cases, and they do not need special protocols for the management of medical complications¹⁰. The IMNCI protocols should be used.

1.4.3 COMPONENTS OF A CMAM PROGRAMME

In South Sudan the management of acute malnutrition has four main components: Community Mobilization, Supplementary Feeding Programme (SFP), Outpatient Therapeutic Programme (OTP), and Stabilization Centre (SC)/In-patient Therapeutic Programme (ITP) (*see figure 1*).

FIGURE 1 Components of CMAM

The role of each component is described below:

Community Mobilization

Community mobilization is an essential component of CMAM that involves active case finding, identification, referral for treatment, care, follow-up of children and PLW with acute malnutrition on treatment as well as education and sensitization on prevention of malnutrition.

Supplementary Feeding Programme (SFP)

The SFP aims to provide home-based treatment for cases with MAM without medical complications, and to prevent acute malnutrition (SAM and MAM), thereby reducing the mortality and morbidity risks in specific vulnerable groups through provision of supplementary food rations, routine medications, and a prevention package. SFP focuses

mainly (but not exclusively) on children aged 6-59 months, pregnant and lactating women with infants less than six months. It also includes other vulnerable groups with MAM such as children ≥ 5 years, adolescents and adults who are infected with HIV/TB/Kala Azar and the older people ≥ 60 years.

Outpatient Therapeutic Programme (OTP)

OTP provides home-based treatment for SAM cases without medical complications and with good appetite.

Stabilization Centre (SC) or In-patient Therapeutic Programme (ITP)

SC/ITP provides in-patient treatment for SAM cases with medical complications and/or without appetite. These sites are primarily health facility based with 24-hr in-patient care services.

Additionally, CMAM provides a continuum of care including services for promotion of good nutrition and prevention of malnutrition such as promotion of MIYCN, Food Security and Livelihood interventions (FSL), WASH, micronutrient supplementation and linkages to accelerated child survival interventions, among others.

This guideline is intended for the management of acute malnutrition (SAM and MAM without medical complications) along the continuum of care, across three components of CMAM (community, Outpatient Therapeutic Care [OTP] and Supplementary Feeding Programme [SFP]). The management of SAM with medical complications is addressed in a separate guideline.

1.5 Integration of CMAM into Primary Health Care Services

Until recently, the services for identification, referral and treatment of acute malnutrition were available mainly as part of emergency programming. These services are now an integral component of the preventive and curative services delivered through the Ministry of Health three-tier system composed of County Hospitals (CH), Primary Health Care Centres (PHCCs) and Primary Health Care Units (PHCUs), in close collaboration with Boma Health Teams (BHT), Home Health Promoters (HHPs)/Volunteers and other community-based networks. The BHT consists of 3 community health workers, who provide the link between the nutrition services in the community and the primary health care services.

The nutrition services are offered as follows:

Community level

At the community level (Village and Boma), nutrition services provided by HHPs/volunteers under supervision of community health workers (CHW) include:

- Identification and referral of cases with acute malnutrition for treatment;
- Follow up of problem cases in the community (absentee and defaulter tracing, follow up of non-respondents);
- Education and sensitization on causes, signs, treatment services for acute malnutrition, and prevention of malnutrition with emphasis on optimal MIYCN and WASH practices, among others.
- Monitoring and reporting on nutrition activities undertaken in the community

Primary Health Care Units (PHCUs)

The main focus of CHWs at the PHCU is disease prevention and promotion of health and nutrition through implementation of growth monitoring and promotion (GMP), education and sensitization on MIYCN, health seeking behaviour, vaccination, and use of mosquito nets, clean water and sanitary facilities.

In addition, CHWs routinely screen children under-five, pregnant women, lactating women with infants less than six months, and other vulnerable groups for acute malnutrition. They support static and outreach TSFP/ OTP services, refer SAM cases with medical complications to in-patient care (SC)/ITPs and collect nutrition data at this first level of the health management information system (HMIS).

Primary Health Care Centres (PHCCs)

Primary Health Care Centres are first level referral health facilities. PHCCs have qualified health professionals such as Clinical Officers, nurses/midwives, nutrition assistants among others. When feasible, in addition to OTP and TSFP services, PHCCs can offer 24-hour in-patient care for management of SAM with medical complications (SC/ITP).

These facilities provide mentoring and supervision for the delivery of nutrition services in PHCUs in their catchment areas.

County Hospitals (CHs)

County hospitals together with the state hospitals and national teaching hospitals provide 24-hour quality in-patient referral health and nutrition care. These hospitals have adequate capacity to manage critically ill referral cases of SAM with medical complications, such as those who require blood transfusion, oxygen therapy and other critical care services. In addition to SC/ITP services, these hospitals provide OTP services and refer discharges from OTP, and other cases identified with MAM, at this level to the TSFP at the PHCCs and PHCUs.

Creation and strengthening linkages with other programmes in MOH/other sectors

A number of measures will be undertaken through the PHC system to promote and strengthen the integration of nutrition specific interventions in the relevant programmes of the MOH, and in the activities of other sectors:

- Ongoing community and public health promotion messaging: to include awareness creation on the causes, signs and symptoms, identification, treatment, and prevention of malnutrition;
- Linking with other health programmes such as IMNCI, iCCM, EPI, ANC/reproductive health, TB and HIV, among others;
- Linking with MOH Monitoring & Evaluation (M & E) department and the Interior Sector to ensure proper age identification for children under five years. This will enhance accurate targeting of children below the age of five years;
- Linking with Food Security and Livelihood (FSL) to ensure families with malnourished children under 5 years and PLW are targeted and supported with agricultural inputs e.g. seed distribution or re-stocking and other livelihood projects (second level targeting);
- Linking with the Agriculture Sector to empower the public with knowledge, skills and capacity for adequate food production;
- Linking with the Education Sector to ensure:
 - School curricula development includes adequate nutritional training;
 - School health programmes integrate nutrition services such as screening and referral for treatment of cases identified with acute malnutrition;
 - Pre-service training through which health personnel are equipped with knowledge and skills to prevent, identify, and manage acute malnutrition.
- Linking with WASH sector to ensure that:
 - Provision of water and sanitation services in nutrition centres is prioritized wherever WASH projects are implemented;
 - The community (beneficiaries) is equipped with adequate knowledge, skills, and capacity for optimal hygiene and sanitation practices.

Community mobilization

2.0	Overview
2.1	Aims of community mobilization for CMAM
2.2	Steps in planning and implementation of community mobilization for CMAM
2.3	Monitoring and evaluation of community mobilization

2.0 Overview

Community mobilization is defined as a capacity building process through which individuals, groups, or organizations plan, carry out, and evaluate activities on a participatory and sustainable basis to improve their health and other needs, either on their own initiative or stimulated by others.¹¹

Community mobilization can be undertaken on its own, or integrated into community health and nutrition outreach activities to further strengthen and support existing health outreach systems. Community outreach activities include identification, care, referral, and follow-up of children and PLW with acute malnutrition. It is the link between prevention and treatment.

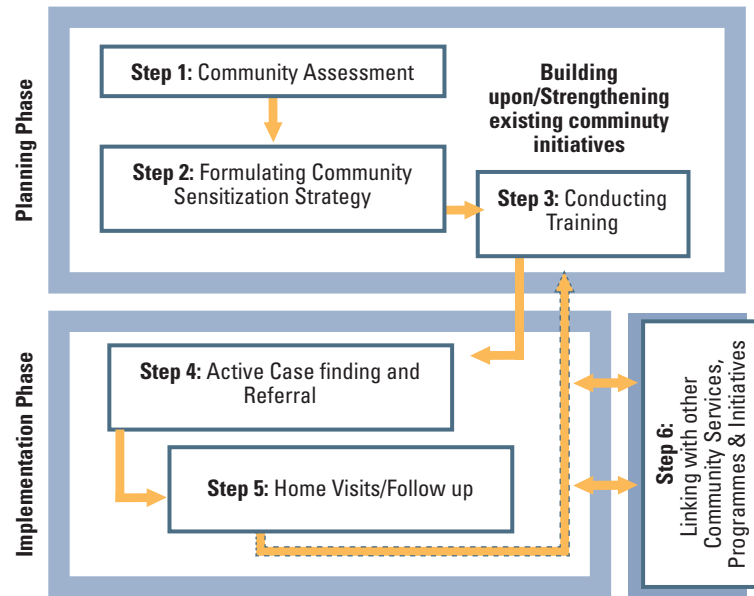
2.1 Aims of community mobilization for CMAM

- The main aims of community mobilization for CMAM include:
 - Empowering the community through:
 - Increasing knowledge on causes, types, identification and management of acute malnutrition;*
 - Passing on key messages to promote sustainable positive health and nutrition behaviour changes;*
 - Provision of simple pictorial IEC materials in the local languages to reinforce the messages and;*
 - Involving all the key stakeholders in the community in planning and implementation of CMAM services;*
 - Increasing service access and uptake (coverage) for the management of acute malnutrition;
 - Strengthening early active case finding, referral and follow-up of cases with acute malnutrition on treatment (e.g. absentee/defaulters tracing);
 - Strengthening the responsibility of the Boma Health Committee (BHC) to encourage sustainability and ownership;
 - Creating community feedback mechanisms to provide accountability to affected populations;
 - Promoting strong links between prevention and treatment so that the underlying causes of malnutrition can also be addressed;
 - Enhancing routine programming instead of campaign based programming.

2.2 Steps in planning and implementation of community mobilization for CMAM

Figure 2 Shows the steps involved in the planning and implementation phases of community mobilization:

FIGURE 2 Steps in planning and implementation of community mobilization



Source: Adapted with modification from GOSS IMSAM Guidelines (2009)

2.2.1 STEP 1: COMMUNITY ASSESSMENT

- Community assessment is key in determining factors that are likely to impact both service delivery and demand (see Annex 1).
- During community assessment, the following need to be identified:
 - The key community persons, leaders, other influential people, and organizations to help sensitize the communities on the CMAM programme;
 - Existing structures and community based organizations/groups;
 - Social and cultural characteristics related to nutrition;
 - Effective formal and informal channels of communication;
 - Attitudes and health seeking behaviours;
 - Other existing nutrition and health interventions in the community.
- The health and nutrition staff in charge of CMAM services at the State Ministry of Health (SMOH) and the County Health Department (CHD) should conduct the community assessment with support from the partners.

2.2.2 STEP 2: FORMULATING A COMMUNITY SENSITIZATION STRATEGY

- Community sensitization is one of the most crucial aspects of the process of community mobilization.
- Information gained during the community assessment should help to guide sensitization efforts.
- The following are two basic fundamentals to devise an effective sensitization strategy:

Develop sensitization messages:

- Develop simple but explicit messages based on the key findings from the community assessment (see Annex 2). Use pictorials and local languages.
- Discuss the sensitization messages with some of the previously identified key community stakeholders to ensure the messages are culturally appropriate prior to community-wide dissemination.
- The key messages can include:

- Causes, signs, symptoms and consequences of malnutrition;
- Identification, referral, care, treatment, and follow-up of cases with acute malnutrition;
- Prevention of malnutrition through MIYCN, FSL intervention, WASH, disease prevention, EPI, ANC/ reproductive health, among others.

Develop a sensitization plan and disseminate the messages:

- Develop a sensitization plan that specifies when, where, who and how to sensitize.
- Involve all stakeholders in planning the sensitization.
- Use the sensitization messages to sensitize the community leaders, representatives, and members through the most effective communication channels. For example, you may complement community mobilization by using radio/cinema.
- Community sensitization is an on-going process, not a one-time event.
- Ongoing community sensitization mainly involves constant dialogue, in which communities periodically voice their views and suggest alternative courses of action.
- Ensure monthly and/or quarterly meetings are held to discuss different aspects of the programme such as:
 - Reviewing the selection and motivation of volunteers;
 - The community's perspective of the programme to identify new barriers to access/coverage;
 - Joint solutions to problems limiting the implementation of the programme.
- The aim is to continue dialogue with community members, address concerns, encourage positive behaviour changes and share success stories.

2.2.3 STEP 3: CONDUCTING TRAINING

- This involves training of HHPs/volunteers on the following:
 - Basic information on the types, causes, identification and treatment of malnutrition;
 - Objectives and target groups for the management of acute malnutrition;
 - Screening for acute malnutrition, care, referral, and follow-up of children and PLW with acute malnutrition;
 - Education and sensitization on prevention of malnutrition;
 - Roles and responsibilities of HHPs/volunteers;
 - Collecting and reporting nutrition data using community based HMIS, among others.

Note: It is the role of the Boma Health Team with the support of the partners to ensure that the identified HHPs/volunteers are trained on community mobilization for CMAM services.

2.2.4 STEP 4: ACTIVE CASE FINDING AND REFERRAL

- The aim of community level screening for acute malnutrition is to ensure maximum access, coverage, and timely identification and treatment of cases with acute malnutrition before the onset of severe medical complications that are harder to treat.
- Active case finding, as opposed to waiting for the acutely malnourished to seek care, facilitates earlier presentation to the health/nutrition facilities.

Who should screen?

- Screening should be conducted by community nutrition providers who are trained to provide nutrition services at the community level. These include:
 - Home health promoters (HHPs)/volunteers;
 - Mother-to-mother support groups (MtMSG);
 - Other community resource persons.

Where screening should be done?

- Screening for acute malnutrition takes place at different contact points in the community and at the health facilities:

Contact points at community level

- House-to-house (e.g. during home visits/follow up)
- During mass campaign days/national immunization days (NIDs)
- During regular EPI outreach days
- Integrated child health days
- Integrated outreaches/outreach clinics
- Schools, kindergartens
- Religious centres
- Community activities such as MtMSG, markets etc.
- Breastfeeding week
- Community celebration days such as marriages
- Water collection points
- Cattle camps
- Fishing camps
- Prisons
- Protection of civilians (PoCs)

Contact points at health facility level (hospital, PHCC, and PHCU)

- Outpatient departments (OPD)
- Triage /screening points
- Immunization centres
- Maternal and child health department (MCH)
- HIV/AIDS/TB, Kala Azar, cancer care and support clinics
- Antenatal care (ANC) and postnatal care (PNC) clinics
- In-patient clinics or wards

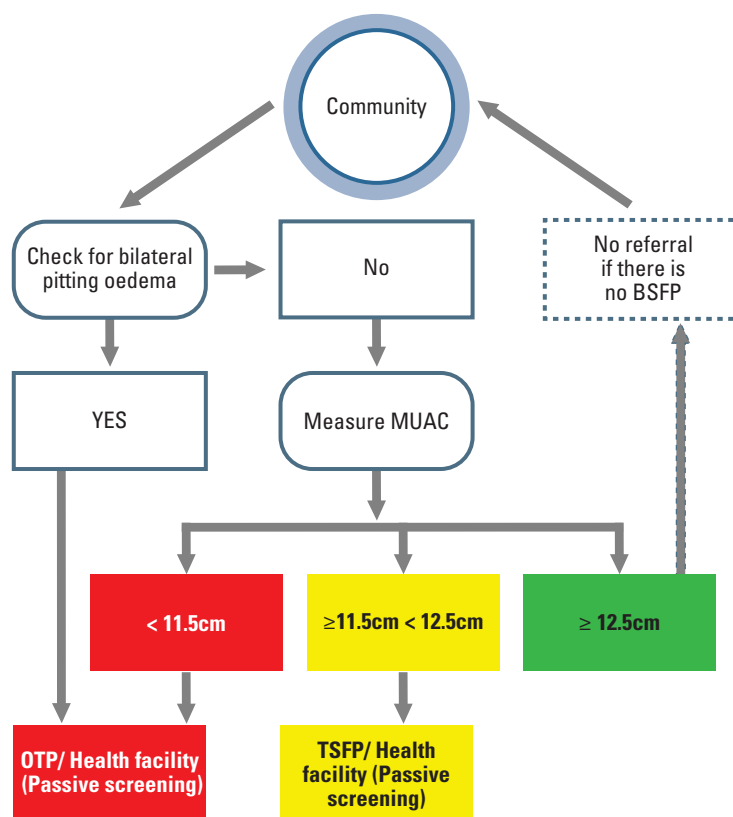
How should screening for acute malnutrition be done?

- Children aged 6 to 59 months: are screened by measuring MUAC and checking for presence of bilateral pitting oedema (*see Annex 3 for more details*);
- PLW are screened by measuring MUAC;
- Infants less than 6 months: are screened by checking for bilateral pitting oedema, visible signs of wasting, and any general danger signs including inability to breastfeed, difficulty in breathing, high fever, among others.

How should the referral of cases identified with acute malnutrition be done?

- The cases with acute malnutrition listed below should be referred directly to the nearest health/nutrition facility (*See figure 3*) for further assessment and appropriate management.
- Children 6 to 59 months of age with:
 - Bilateral pitting oedema;
 - MUAC ≥ 11.5 cm and < 12.5 cm (yellow colour code) or < 11.5 cm (red colour code).
- Infants less than 6 months of age who:
 - Have bilateral pitting oedema;
 - Are too weak or feeble to suckle effectively;
 - Any weight loss and/or visible wasting;
 - Any other medical complications or general danger signs.
- Any PLW with a MUAC < 23.0 cm
- Referral should be made using a community screening referral slip (*Annex 8*).

FIGURE 3 Flow Chart for Nutritional Strategy for Screening for Acute Malnutrition within the Community among Children 6-59 months



Source: Adapted with modifications from Golden H.M. and Y. Grellety (2012), Protocol for Integrated Management of Acute Malnutrition, Version 6.6.2 Version 6.6.2 January 2012 for severe malnutrition and version 1.1 for moderate malnutrition

2.2.5 STEP 5: HOME VISITS/FOLLOW-UP

- Throughout the treatment of acute malnutrition, cases receiving treatment and their mothers/caregivers will need continued support.
- Specific follow-up at home is conducted by HHPs/volunteers (on request by health and nutrition workers) to:
 - Investigate reasons for absence or default and to encourage the family to return to the program;
 - Investigate reasons for poor treatment response such as selling/sharing of ready-to-use therapeutic food (RUTF), food insecurity, poor hygiene and sanitary conditions, among others;
 - Provide education and counselling, support adherence to treatment and address any problems that mothers/caregivers are having with the treatment;
 - Sensitize and encourage male participation.
- The HHPs/volunteers should use a home visit tool to collect and report information to the health facility (*see Annex 10*).

2.2.6 STEP 6: LINKING WITH OTHER COMMUNITY SERVICES, PROGRAMMES AND INITIATIVES

If feasible, families of children with acute malnutrition should be targeted by community initiatives, services and programmes for prevention of malnutrition, such as FSL intervention or other services identified during community assessment (*see step 1*).

2.3 Monitoring and evaluation of community mobilization

- The services provided by HHPs/volunteers are supervised by the Boma Health Team.
- The HHPs/volunteers record data on community nutrition services using the following tools:
 - Community screening referral slip (*Annex 8*)
 - Community nutrition screening daily tally sheet (*Annex 40*)
 - Community nutrition screening monthly tally sheet (*Annex 41*)
 - Home visit checklist (*Annex 10*) Refer to chapter 8 for details.

CHAPTER 3

Supplementary feeding programme for the management of moderate acute malnutrition

3.0	Overview
3.1	Target groups for SFP
3.2	When to start SFP
3.3	Basic requirements for establishing SFP
3.4	Scheduling of SFP services
3.5	Supplementary foods and ration sizes
3.6	Targeted supplementary feeding programme (TSFP)
3.7	Blanket supplementary feeding (BSFP)
3.8	When to close SFP
3.9	Monitoring and evaluation of SFP

3.0 Overview

The Supplementary feeding programme (SFP) aims to treat cases with moderate acute malnutrition (MAM) and to prevent acute malnutrition (SAM and MAM), thereby reducing the mortality and morbidity risks in vulnerable groups. The SFP also provides a continuum of care to cases discharged from the outpatient therapeutic programme (OTP), and stabilization centres (SC)/in-patient therapeutic programme (ITP). SFP is categorized into two types of nutrition interventions:

- **Targeted supplementary feeding programme (TSFP):** aims to treat MAM cases without medical complications through the provision of outpatient treatment, consisting of high energy and nutrient dense supplementary food rations, routine medications, and a prevention package.
- **Blanket supplementary feeding programme (BSFP):** aims primarily to prevent a deterioration in the nutritional status and to reduce the prevalence of acute malnutrition among vulnerable groups through the provision of energy and nutrient dense supplementary food rations, micronutrient supplements, and a prevention package to all members of the at-risk groups.

3.1. Target groups for SFP

Targets groups for SFP are indicated in *Table 1*

TABLE 1 Target groups for SFP

TARGET GROUPS FOR TSFP	TARGET GROUPS FOR BSFP
<p>Children 6-59 months with MAM; Pregnant women from second trimester and lactating women with infants less than six months with acute malnutrition and lactating women with wasted infants less than six months (PLW);</p> <p>Other vulnerable groups with MAM: Children ≥ 5years, adolescents and adults infected with HIV/TB/Kala Azar; Older people (≥ 60 years)</p>	<p>ALL children 6-59 months; ALL pregnant women from second trimester and lactating women with infants less than six months (PLW).</p>

3.2 When to start SFP

TSFP should be implemented when one or more of the following situations occur:

- If the prevalence of GAM among children aged 6-59 months is 15% or more
- Large numbers of acutely malnourished individuals: If the GAM prevalence among children aged 6-59 months is at 10-14% without aggravating factors.
- There are large numbers of children aged 6-59 months predicted to become malnourished due to factors like poor food security and high rates of disease. If the GAM prevalence is at 5-9% in presence of aggravating factors¹².

BSFP may be set up under one or a combination of the following circumstances:

- At the onset of an emergency when the TSFP and OTP are not adequately in place or not properly functioning;
- Prevalence of GAM equal or greater than 15% (among children 6-59 months);
- Prevalence of GAM at 10-14% in presence of aggravating factors;
- Anticipated increase in rates of malnutrition due to seasonally induced food insecurity or epidemics;
- In case of high risk and anticipated micronutrient deficiency, to provide micronutrient-rich foods to the target population.

Note: The decision-making framework (*Annex 25*) can be used as a guide relative to local circumstances.

3.3 Basic requirements for establishing SFP

- The minimum basic requirements for setting up a functional TSFP and BSFP are listed in Annex 11;
- There should be a maximum of 500 beneficiaries per each **BSFP site**.

3.4 Scheduling of SFP services

To maximize access and coverage, SFP services are offered as an integral part of primary health care and can function either as **static** or outreach **services**.

Static TSFP services

- These are implemented through a large number of decentralized sites, including health facilities;
- TSFP may be located at same sites for OTP or nearby, thus facilitating referrals between TSFP and OTP;
- Admission of new MAM cases is done on a daily basis, while ration distribution is organized as follows:

- TSFP rations for children 6-59 months are provided DAILY for new admissions;
- TSFP rations for PLW and other categories are scheduled for specific days of the week. Therefore, on admission of these cases, appointments should be made for them to return to the facility and receive their rations;
- Cases already admitted on programme are served on a bi-weekly basis. Monthly appointments can be scheduled in special circumstances e.g. insecurity, poor access or long distances to the facility.
- BSFP can be conducted at any agreed upon site in the community. Ration distributions are done once a month, on a designated day;
- In locations where static sites are not feasible, e.g. scattered pockets of people or post-disaster situations with disrupted public health systems, **outreach SFP services** can be provided through outreach posts in the community.
- SFP sites are usually located within a walkable distance (one day's return walk) for the beneficiaries to minimize defaulting.

3.5 Supplementary foods and ration sizes

- SFP rations are intended to supplement the home diet. They should be energy dense, high in protein, and rich in micronutrients, culturally appropriate, easily digestible and palatable;
- Rations include Fortified Blended Foods (FBF) and Lipid-based Nutrient Supplements (LNS) (*see Table 2*).
- FBFs are provided as dry rations and in larger quantities to sharing to compensate for sharing within the family.
- However, on-site (wet) feeding may be considered for a limited period of time, in particular contexts (e.g. refuges, internally displaced persons ([IDPs]) when:
 - Food supply in the household is limited, and it is likely that the dry ration will be shared with other family members;
 - Firewood and cooking utensils are in short supply and it is difficult to prepare meals in the household;
 - The security situation is poor and beneficiaries are at-risk when returning home carrying the bi-weekly supply of food.

TABLE 2 Types of SFP rations

TSFP RATIONS					
GENERIC NAME	PRODUCT	TARGET GROUP	RATION /DAY	RATION/2WEEKS	PACKAGING
Lipid based nutrient supplement (LNS)	RUSF	Children 6-59 months	Daily ration: 1 sachet Energy-500kcal Protein-13g Fat-31g	14 sachets	92g per sachet
Fortified blended foods (FBF)	Super Cereal Plus (CSB++)	PLW, other acutely malnourished cases, including patients on ART ¹³ /DOTS ¹⁴ /Kala Azar treatment and the older people (≥ 60 years). Alternative ration for: Children 6-59 months	Daily ration: 200g Energy-787 kcal Protein-33g Fat-20g	2.8kg (2packets=3kg are distributed)	1.5kg packet
BSFP RATIONS					
GENERIC NAME	PRODUCT	TARGET GROUP	RATION /DAY	RATION/MONTH	PACKAGING
FBF	Super Cereal Plus (CSB++)	Children 6-59 months and PLW	200g	6 kg	1.5kg packet

Note: See Annex 12 for more details

3.6 Targeted Supplementary Feeding Programme (TSFP)

3.6.1 ADMISSION CRITERIA FOR TSFP

Admission criteria for TSFP is based on precise anthropometric cut-offs for moderate acute malnutrition, clinical absence of bilateral pitting oedema, and any medical complications or general danger signs (*Table 3*).

TABLE 3 Admission criteria for children with MAM and PLW with acute malnutrition in TSFP

CHILDREN 6-59 MONTHS	CRITERIA
Children 6-59 months	<ul style="list-style-type: none"> • MUAC: $\geq 11.5\text{cm}$ - $< 12.5\text{cm}$ OR • Weight-for - Height/Length (WFH/L): ≥ -3 - < -2 z-score AND • Good appetite • Clinically well and alert ALSO • Children discharged cured from OTP • Children discharged cured from SC/ITP in the context where there is no nearby functional OTP
Pregnant women (from the 2nd trimester/ visible pregnancy)	<ul style="list-style-type: none"> • MUAC $< 23.0\text{cm}$
Lactating women with infant < 6 months	<ul style="list-style-type: none"> • MUAC $< 23.0\text{cm}$ OR • The infant is wasted

3.6.2 ADMISSION PROCEDURES FOR TSFP

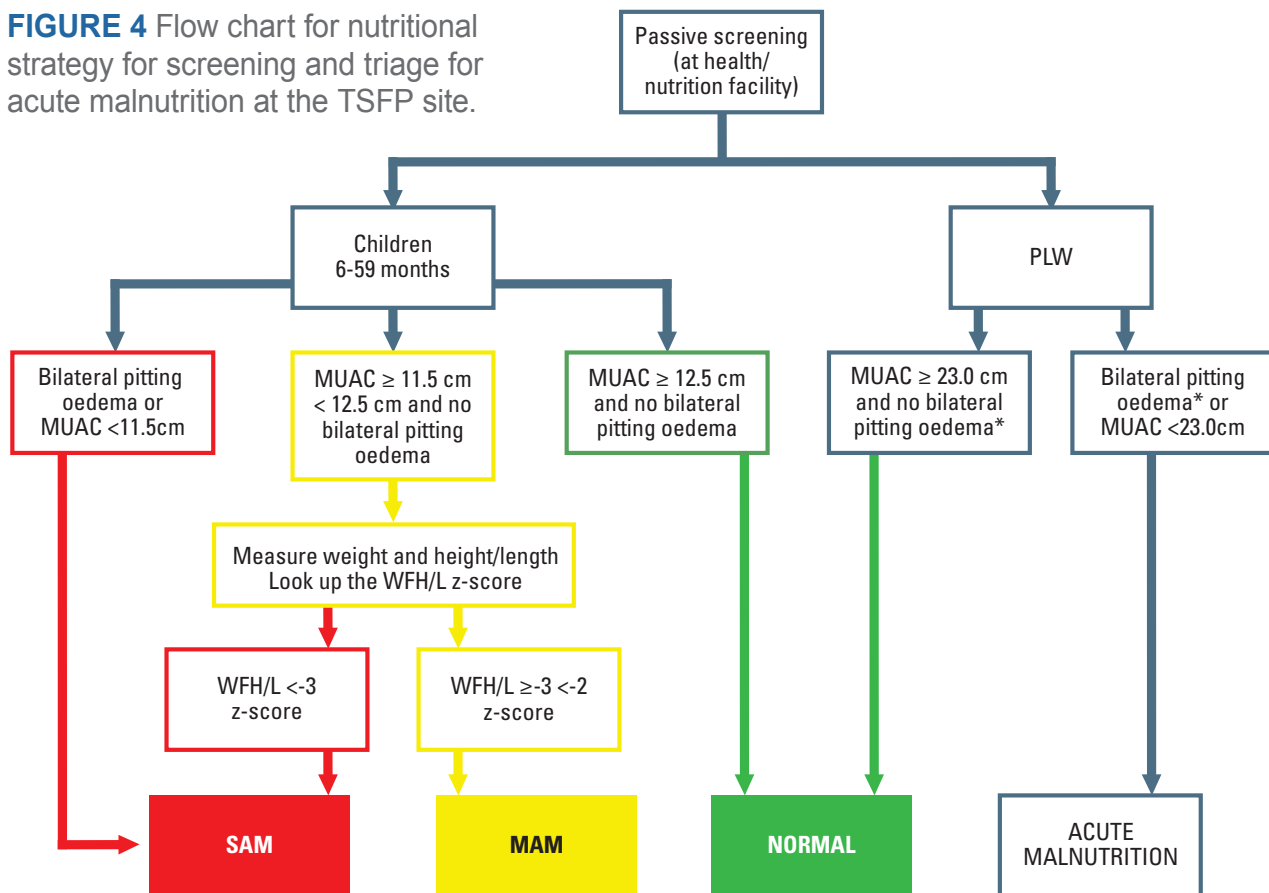
STEP 1: TRIAGE AND HEALTH/NUTRITION EDUCATION

- This takes place in the waiting area of the TSFP site.
- Proceed as follows:
 - Conduct triage. Triage is the sorting of patients into priority groups based on severity of their condition/illness (*for details refer to Annex 13*);
 - Fast track critically ill patients;
 - Identify cases referred from the community, SC/ITP, OTP/other TSFP and other contact points.
 - Conduct group health and nutrition education for mothers/caregivers of non-critically ill patients and PLW (focusing on MIYCN).

STEP 2: SCREENING FOR ACUTE MALNUTRITION

- All children and PLW attending a health/nutrition facility for any reason (whether they are sick or are referred from the community) should be systematically screened for acute malnutrition as follows:
 - Determine the age of children from official records such as child health card or recall of the mother/caregiver;
 - Check for presence of bilateral pitting oedema;
 - Take anthropometry (MUAC, weight, height/length) (see Figure 4 for details):

FIGURE 4 Flow chart for nutritional strategy for screening and triage for acute malnutrition at the TSFP site.



Source: Adapted with modifications from Golden H.M. and Y. Grellety (2012), Protocol for Integrated Management of Acute Malnutrition, Version 6.6.2 Version 6.6.2 January 2012 for severe malnutrition and version 1.1 for moderate malnutrition

For children 6-59 months:

- If the child has normal nutrition status (no acute malnutrition): praise the mother/ caregiver and counsel on prevention of malnutrition (see chapter 6);
- If the child has SAM or MAM, proceed to step 3.

For PLW:

- Take weight and MUAC and proceed as follows:
 - If a PLW has normal nutrition status: Praise her and provide nutritional counselling on prevention of malnutrition (see chapter 6 for details);
 - If a PLW has acute malnutrition or if a lactating woman has a wasted infant, proceed to step 3.

STEP 3: CLINICAL ASSESSMENT

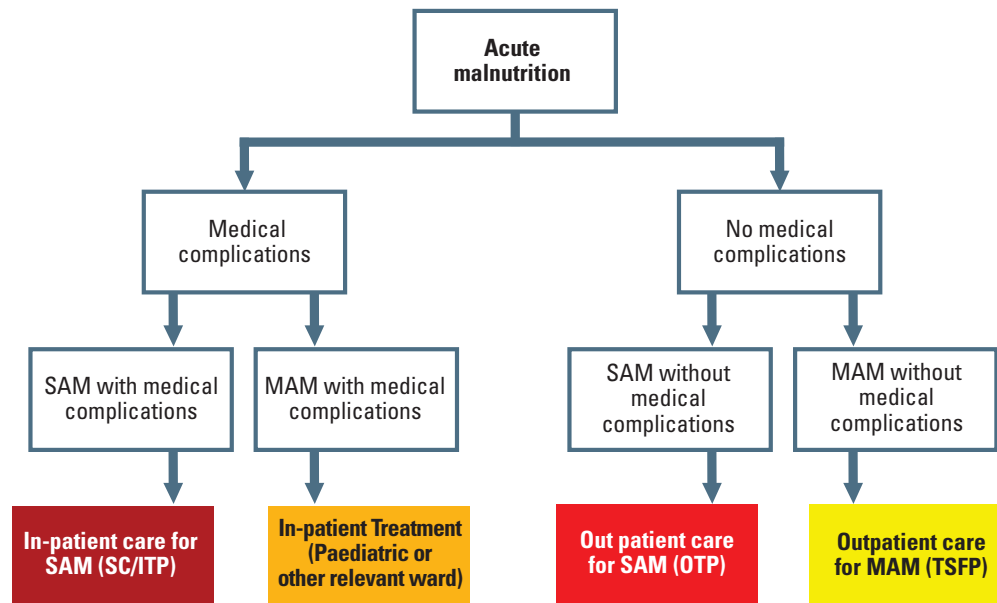
- Take a brief history of feeding practices, assess for signs and symptoms of medical complications and any other health conditions;
- For children with SAM with or without medical complications, or with MAM with medical complications and/or general danger signs requiring in-patient care¹⁵:
 - Counsel the mother/caregiver.
 - Fill in a referral slip (see Annex 9), refer and fast track the, child for admission at the nearest SC/ITP or OTP or paediatric/children’s ward, as indicated in Figure 5;



IMPORTANT NOTES:

- Patients who are critically ill should be fast tracked for admission to in-patient care (see Fig.5);
- If necessary, immediate steps should be taken to stabilize the patient before referral (follow the IMNCI or other relevant protocols).

FIGURE 5 Algorithm for classification of acute malnutrition¹⁶



- Ensure all new MAM cases undergo a medical check¹⁷.
- A medical check should be conducted by a trained clinician or other qualified health provider (such as a nurse).
- DO NOT repeat a medical check for cases who have been seen already and have clinical notes from other care points at the health facility.
- If the child or PLW meets the admission criteria for TSFP in *Table 3*, proceed to step 4.

STEP 4: ADMISSION/REGISTRATION IN TSFP

- Assign a 3-digit registration number (e.g. 001), and record the child's/PLW's information in the TSFP register book and treatment card (*Annex 14*).
- Admission categories include:
 - **New Admissions:**
 - **New Cases:** Children 6-59 months with MAM, PLW with acute malnutrition and lactating women with wasted infants < 6 months who are directly admitted for MAM treatment in TSFP.
 - **Discharges from OTP (follow up cases):** Children 6-59 months who are discharged cured from OTP to continue treatment in TSFP.
 - **Discharges from SC/ITP (follow up cases):** These include:
 - i. Children 6-59 months who are discharged cured from SC/ITP to continue treatment in TSFP, in the context where there is no nearby functional OTP;
 - ii. PLW with acute malnutrition and lactating women with wasted infants < 6 months who are discharged cured from SC/ITP to continue treatment in TSFP.
 - **Relapses:** Children 6-59 months and PLW who were previously treated and discharged from TSFP as “cured” and now have a new episode of moderate acute malnutrition (within a period of 2 months).
 - Children that have relapsed are particularly vulnerable; the fact that they are relapses should be recorded appropriately.
 - Relapses are given their original registration numbers. If this cannot be found, give a new number but add a postfix to indicate that this is a second admission e.g. **001-2**.
 - **Old cases/re-admissions include:**
 - **Returned defaulters:** Children 6-59 months and PLW who defaulted from treatment before recovery (cases previously exited from TSFP as “defaulters”) who return within a period of 2 months and still

fulfill admission criteria for TSFP. For PLW, the infant should still be < 6 months.

- **Transfer in from other TSFP:** Children 6-59 months and PLW who started treatment at a different TSFP site and are transferred to a new site to continue treatment. Add 'R' to the registration number to indicate that the child is a referral from another TSFP e.g. **001-R**.
- **Returned referrals:** Children 6-59 months and PLW who were referred to a hospital/health facility for medical investigation (not in any nutrition programme) and return within their treatment period in TSFP, to continue treatment for MAM.

STEP 5: PROVIDE ROUTINE MEDICATIONS AND NUTRITIONAL TREATMENT

Routine medications:

- All children and PLW admitted directly to TSFP are provided with routine medications (*Tables 4 and 5*).
- Routine medications for PLW are usually provided at the health facility at ANC/PNC services. In facilities where ANC/PNC services are not available, eligible PLW should be referred to the nearest health facilities with ANC/PNC services.
- Record routine medications given both in the TSFP register book and on the TSFP ration card (*see TSFP ration cards for children 6-59 months and PLW in Annexes 15 and 16*).

TABLE 4 Routine medications and prevention items for children 6-59 months with MAM in TSFP

WHAT	WHEN	WHO	DOSE	DELIVERY
ROUTINE MEDICATIONS				
VITAMIN A	At admission if NOT using RUSF and if NOT taken in the last 1 month	6 months to < 1year	100 000IU	Single dose on admission
		≥1 year	200 000IU	
ALBENDAZOLE	On second visit if NOT taken in the last 3 months. DO NOT give if child is from OTP/SC/ITP.	< 1 year	DO NOT GIVE	None
OR		12-23 months	200 mg	Single dose
		≥ 2 years	400 mg	Single dose
MEBENDAZOLE	On second visit if NOT taken in the last 3 months. DO NOT give if child is from OTP/SC/ITP.	< 1 year	DO NOT GIVE	None
		12-23 months	250 mg	Single dose
		≥ 2 years	500 mg	Single dose
MEASLES VACCINATION*	On admission	From 9 months	Protocol for EPI	Protocol for EPI
OTHER MEDICATIONS AND PREVENTION ITEMS (GIVEN IF NECESSARY AND AVAILABLE)				
Iron/folate	On admission only with signs of/ or diagnosed with anaemia	Children < 10kg	30 mg	tab daily for 3 months
		Children ≥ 10kg	60 mg	1 tab daily 3 months
SOAP	On admission	Soap for hand washing		One piece
Long lasting insecticide treated net (LLITN)	At admission except for children from OTP and SC/ITP	ALL mothers/ caregivers of admitted children	Prevention of malaria	One bed net

*Check the child health card of every child and update/or refer for immunizations according to EPI protocols.

TABLE 5 Routine medications and prevention package for PLW with MAM admitted in TSFP

ROUTINE MEDICATIONS			
WHAT	WHEN	DOSE	DELIVERY
IRON/FOLATE OR MULTI MICRONUTRIENTS TABLETS (MMT)	On admission Refer to ANC/PNC	60mg iron plus 400ug folate	Once daily throughout pregnancy
			Once daily until infant is 6 months
PREVENTION PACKAGE (GIVEN IF AVAILABLE)			
WHAT	WHEN	DOSE	DELIVERY
SOAP	On admission	Soap for hand washing	One piece
BED NET (LLITN)	On admission in malaria prevalent areas	Malaria prevention	One net



IMPORTANT NOTES:

- DO NOT give Vitamin A to children who are taking RUSF. Give only when the children are given super cereal plus as an alternative ration.
- Children referred from SC/ITP/ OTP should not be given routine medications again.
- ALL mothers/caregivers who are pregnant or lactating and are eligible for ANC/PNC services should be referred appropriately

Nutritional treatment:

For children 6-59 months with MAM:

- The nutritional treatment in TSFP aims to provide additional energy and nutrients to the existing home based diet to support catch up growth in children 6-59 months with MAM.
- This means adding at least 25% additional energy and sufficient micronutrients.
- Give RUSF for each child as follows:

SACHETS/DAY	SACHETS/WEEK	SACHETS/2WEEKS
1	7	14

- If RUSF is NOT AVAILABLE, give super cereal plus (CSB++) as follows:

AMOUNT/DAY	PACKETS/WEEK (=1.5KG)	PACKETS/2WEEKS (=3.0KG)
200g	1	2

- In absence of RUSF and super cereal plus (CSB ++), take the necessary steps to apply the expanded criteria (*Annex 17*) and give RUTF in the same amounts as RUSF.
- In addition, the expanded criteria can be applied during Rapid Response Mechanisms (RRM) in locations where the TSFP and OTP services are not functioning properly or there is inadequate coverage.

For PLW:

- The aim of the nutritional treatment is to provide adequate nutrition for PLW with acute malnutrition during foetal development and the first 6 months of the infant’s life while the mother is breastfeeding the infant.
- Give and record a ration for 2 weeks as indicated in *Table 2* above;

STEP 6: HEALTH AND NUTRITION EDUCATION

- Mothers/caregivers of children and PLW in TSFP should be given key messages on the daily amount the child or PLW will need to consume, and how to use and store the ration at home (*see Annex 18*).
- Ensure the mother/caregiver or PLW understands that the ration is intended for the child/or the PLW and **SHOULD NOT** be widely shared with other family members or given to infants < 6 months;
- CHWs and HHPs/volunteers should conduct practical demonstrations on how to use/prepare the ration and ensure that mothers/caregivers /PLW are actively involved;
- In addition, conduct health/nutrition education and counselling sessions with emphasis on optimal MIYCN, WASH and health seeking practices (see Chapter 6 section 6.3 for details);

- Be sure that the mother/caregiver/PLW understands the key messages by asking simple questions.

Where no ration is available

- In circumstances where TSFP rations and RUTF are not available, mothers/caregivers of children with MAM should be advised on the preparation of locally available and affordable high energy, nutrient dense foods (*see Annex I9*).
- A multi-micronutrient supplement such as Sprinkles could be provided to improve the micronutrient quality of the diet.

STEP 7: PROVIDE A PREVENTION PACKAGE

- If a prevention package is available (see Tables 4 and 5), give it to PLW and mothers/caregivers of children who are newly admitted into TSFP.
- This excludes referrals from OTP/SC/ITP who already received the prevention package;
- Record the items given in the TSFP register book and on the TSFP ration card.

STEP 8: MAKE AN APPOINTMENT FOR THE NEXT VISIT

- Give and record biweekly appointments for the next follow up visit at the health facility/TSFP site;
- Mothers/caregivers may be asked to return empty sachets of RUSF at each follow up visit to monitor consumption and minimize sharing.

STEP 9: DISPENSE THE RATION TO LAST UNTIL THE NEXT VISIT

- Dispense the prescribed ration;
- Give the TSFP ration card to the PLW or mother/caregiver and advise her/him to bring it for the next visit.

3.6.3 FOLLOW-UP CARE DURING TREATMENT IN TSFP

- At each follow-up visit at the health facility/TSFP site;
 - Conduct health/nutrition education and counselling sessions using standardized messages. Special attention should be paid to optimal MIYCN, WASH and health care seeking practices, ANC/PNC (See Chapter 6 for more details);
 - Monitor progress of each individual child or PLW (Table 6), discuss the progress and any action taken with the mother/caregiver or PLW and give advice for home care;
 - For cases who are not improving, investigate possible causes of failure to respond (chapter 4 box B) and take action according to Action protocol for TSFP (see Annex 20);

TABLE 6 Parameters and frequency for monitoring of children's/PLW's progress in TSFP

PARAMETERS	FREQUENCY
Bilateral pitting oedema	Every visit
MUAC	Every visit
Weight	Every visit
Height/Length*	Once a month and at discharge
WFH/L*	Every visit
Body temperature	Every visit
Clinical signs (breathing/pneumonia, stool/diarrhoea, vomiting, etc.)	Every visit
Appetite (determined from history)	Every visit

*Height and WFH/L apply only to children 6-59 months and NOT to PLW



REMEMBER:
Where there is no TSFP:

- Counsel mothers/caregivers of children 6-59 months with MAM, or PLW with acute malnutrition, on the use of high energy/nutrient dense local foods fortified with micronutrients (MNPs) if available.



IMPORTANT NOTES:

- Monitor progress of children using the same criteria used for admission:
 - *If a child is admitted based on MUAC, monitor MUAC ONLY on every visit;*
 - *If a child is admitted based on WFH/L z-scores, monitor WFH/L z-scores ONLY every visit*
- Monitor progress of PLW by monitoring MUAC on every visit.

- Provide and record the ration and routine medications, according to protocol. Rations are provided even if the child or PLW is referred for medical investigation;
- Ensure children and PLW are referred for further care/ or to other relevant programmes, including ANC/PNC services for PLW.



IMPORTANT NOTES:

HHPs should be present at the health/nutrition facility on TSFP days to:

- Assist the health and nutrition workers at the site;
- Conduct the practical demonstrations on how to use/prepare the rations;
- Follow up children who are absent/defaulters/not responding to treatment, as determined by the health care provider.

3.6.4 EXIT CRITERIA FOR TSFP

- The various forms of exiting Children and PLW from TSFP are indicated in Table 7:

TABLE 7 TSFP exit criteria for children 6-59 months and PLW

FORMS OF EXIT		EXIT CRITERIA	ACTION TO TAKE
Cured	Children aged 6-59 months	<p>For a child admitted by MUAC: MUAC \geq 12.5cm for 2 consecutive visits OR For a child admitted by WFH/L: WF H/L \geq -2 z-score for 2 consecutive visits</p>	<p>Record outcome in TSFP register book as “cured”</p> <p>Ensure linkage to appropriate primary health care services and other community initiatives.</p> <p>Give final ration (2 weeks)</p>
	Pregnant women	On delivery OR MUAC \geq 23.0cm for 2 consecutive visits (when discharged at delivery with MUAC still < 23.0 cm, admit as lactating women)	
	Lactating women with infant < 6m	<p>MUAC \geq 23.0cm for 2 consecutive visits OR When the infant reaches six months (apply whichever criteria is met first)</p>	
Defaulter	Child or PLW was absent for 2 consecutive visits	Record outcome in the TSFP register book as “defaulter” Request for a home visit	
Non-respondent	Child did not meet discharge criteria after 3 months in TSFP	Record outcome in the TSFP register book as “non-respondent” Refer for medical investigation	
Transfer out to OTP or SC/ITP	<p>Child referred to SC/ITP or OTP due to condition deteriorating to SAM with or without medical complications, respectively; PLW referred to SC/ITP due to condition deteriorating to SAM with medical complications.</p>	<p>Record outcome in the TSFP register book as “Transfer out”</p> <p>Fill a referral slip (include treatment given and the reason for transfer)</p>	
Transfer out to another TSFP site	<p>Child or PLW transferred to another nearest TSFP site Child or PLW transferred to another TSFP site based on request from the caregiver/PLW</p>	<p>Record in the TSFP register book as “transferred to another TSFP site”.</p> <p>Prepare a referral slip with all the patient’s details</p> <p>Follow up to ensure that patient is enrolled in another TSFP site as per the referral</p>	
Died	Child or PLW died while registered in TSFP	Record outcome in TSFP register book as “died”	
Medical Transfer/referral	Child or PLW referred to a hospital or health facility for medical investigation and care and not in any nutrition programme	<p>Record outcome in the TSFP register book as “Medical Transfer”</p> <p>Fill a referral slip (include treatment given and the reason for transfer)</p>	



REMEMBER:

FOR NON-RESPONDENTS, please refer for medical investigations including but not limited to:

- HIV counselling and testing
- TB screening

3.6.5 DISCHARGE PROCEDURES FOR CHILDREN AND PLW WHO ARE “CURED”

STEP 1: IDENTIFY CHILDREN OR PLW WHO MEET THE EXIT CRITERIA FOR “CURED”

- Ensure the child or PLW meets the exit criteria for “cured” (Table 7).

STEP 2: PREPARE CHILDREN AND PLW FOR DISCHARGE

- Record discharge data in the TSFP register book, treatment and ration cards;
- For children, check child health card for vaccinations and link with EPI department as necessary;
- Counsel PLW and mothers/caregivers on MIYCN, childcare, and disease prevention practices.
- Ensure linkage with appropriate community initiatives (e.g., MtMSG/MSG, FSL interventions, BSFP etc.)
- Advise mother/caregiver to ensure that every 6 months the child receives vitamin A (starting at 6 months) and treatment for parasitic infestation (starting at 1 year);
- Give final ration (2 weeks).

3.7 Blanket Supplementary Feeding Programme (BSFP)

3.7.1 ADMISSION CRITERIA FOR BSFP

BSFP for children:

- **ALL children aged 6 to 59 months of age.** This is applicable in the context where the OTP and TSFP services are not functioning properly, or there is inadequate coverage, or where there are no functional referral systems.
- **ALL children 6-23 months** (focuses on the first 1,000 days of life). This is applicable in the context where the OTP and TSFP are properly functioning with adequate coverage, or where functional referral systems exist or if resources are limited.

BSFP for PLW:

- **ALL** pregnant women from second trimester (visible pregnancy);
- **ALL** lactating women with an infant less than 6 months.

3.7.2 ADMISSION PROCEDURES FOR BSFP

The admission process is as follows:

STEP 1: REGISTER CHILDREN OR PLW

- Determine the eligibility for admission into BSFP as follows;
 - **For children**, determine age from official records. If no records are available, use a height stick. All children measuring between 65.0cm (average length for a 6 month old) and 110.0 cm (the average length for a 59 months old) are included in the BSFP for children 6 to 59 months while all children measuring between 65.0cm and 87.0 cm (the average length for a two-year-old) are included in the BSFP for children 6 to 23 months;
 - Alternatively, if it is difficult to measure the length of infants less than 6 months of age, the child’s age can be estimated based on average growth milestones, such as teething. In this case, a child with 2 incisor median (lower jaw) is between 6-9 months and therefore is eligible for BSFP. The mother should NOT be registered as a PLW (see below).
 - **For PLW**, include all pregnant women from second trimester (visible pregnancy) and all lactating women with infant less than 6 months of age.
- If the child or PLW meets the criteria for admission, complete the admission details in the BSFP register book and the ration card (*Annexes 21 and 23*);

- Explain to the mother/caregiver or PLW the purpose and duration of the programme, and when to return for admission at the next distribution round;
- If the child or PLW does not meet the criteria for BSFP, explain why the child/PLW is not included.

STEP 2: SCREEN THE CHILDREN OR PLW FOR ACUTE MALNUTRITION AND REFER AS NEEDED

ALL children and PLW:

- Assess the child or PLW for bilateral pitting oedema and take MUAC. Screening record sheets (*Annexes 22 and 24*) are used to quickly count by category. The totals are later used for reporting.

Note: Oedema in adults may be due to medical or physiological causes. Therefore, bilateral pitting oedema in PLW MUST be interpreted with caution.

If the woman is lactating:

- Assess her for any breastfeeding problems and check the infant for visible signs of wasting.
- Take actions using the BSFP action protocols (*Annexes 20*).
- Record any actions taken.

STEP 3: PROVIDE PREVENTION PACKAGE (IF AVAILABLE)

- If available, provide a prevention package consisting of: soap for hand washing, insecticide treated bed nets (LLITN), and education sessions.
- **FOUR** essential messages are given in the BSFP:
 - Exclusive breastfeeding (for 6 months). Mothers should understand that the ration **MUST NOT BE GIVEN TO INFANTS < 6 MONTHS**;
 - **Complementary feeding:** At 6 months introduce semi-solid and solid energy and nutrient dense foods, prepared appropriately using locally available and affordable foods. Continue breastfeeding up to 2 years and beyond;
 - Wash hands with soap and clean running water before eating and after using the toilet/latrine;
 - Recognize danger signs and prevent illness and death through the use of LLITN, continued feeding during illness and use of ORS (in case of diarrhoea).
- To ensure the quality of the education session and not lengthen the distribution session duration, focus on one message a month;
- Record prevention items given in the register book;
- Refer all eligible children for EPI updates, and pregnant women for ANC and tetanus vaccination at the nearest health facility;
- Refer children and PLW with health problems to the nearest health facility.

STEP 4: PROVIDE RATION

- Provide the ration for one month (see Table 2).
- Explain how the ration is to be used/prepared and stored at home (see *Annex 18*);
- Ensure the mother/caregiver or PLW understands that the ration is intended for the index child or PLW (child or PLW registered in BSFP) and is not to be shared;
- Record the ration given in both the BSFP register book and on the BSFP ration card;
- Advise the mother/caregiver or PLW when the next distribution round will be. Remind the mother/caregiver or lactating woman to come with the child to the BSFP site for assessment;
- Other family members may accompany mother/caregiver and child or the PLW to carry the ration.

STEP 5: CONDUCT PRACTICAL DEMONSTRATION ON THE USE/PREPARATION OF THE RATION

- In addition to the messages on how to use/prepare and store the ration (CSB+ and CSB++) at home, practical

sessions should also be conducted. In order to ensure active participation, groups of **NOT** more than 10 mothers/caregivers should be organized per practical session.

3.7.3 FOLLOW-UP DISTRIBUTION ROUNDS

- Children and mothers/caregivers or PLW should attend BSFP every month.
- At every distribution round, proceed as follows:
 - Assess the child and PLW for bilateral pitting oedema and measure MUAC. Record findings on screening record sheet and in the register book.
 - Determine if referral is needed according to the BSFP action protocols for children and PLW (*Annex 20*). If so, complete a referral slip as needed.
 - Refer children and PLW with health problems to the nearest health facility.
 - Provide the ration, and record it in the register book and on the ration card.
 - Advise the mother/caregiver or PLW when the next distribution round will be.

3.7.4 EXIT CRITERIA FOR BSFP (WHEN TO DISCHARGE CHILDREN AND PLW FROM BSFP)

- Children are discharged from BSFP when they reach 60 months (if the BSFP is targeting children 6-59 months) or when they reach 24 months (if the BSFP is targeting children 6-23 months);
- Mothers are discharged from the BSFP when their infants reach 6 months.
- Where possible, the child should be registered in the BSFP for children.

3.8. When to close supplementary feeding programme

- The decision to close down a SFP should only be made after a nutrition survey has clearly shown a significant decrease of GAM in the population.
- Follow up nutrition surveys must be planned to detect any deterioration of the situation, even after SFP closure.
- **TSFP** can be closed when all of the following criteria are satisfied:
 - Food consumption is adequate;
 - Prevalence of GAM is below 5% without aggravating factors;
 - Control measures for infectious diseases are effective;
 - Deterioration in nutritional situation is not anticipated;
 - The population is stable - no major influx is expected.
- The duration of a **BSFP** depends on the scale and severity of the disaster, and the effectiveness of the initial response¹⁸.
- BSFP can be closed when all the following conditions are met:
 - Food consumption is adequate;
 - Prevalence of GAM (in children 6-59 months) is below 15% without aggravating factors;
 - Prevalence of GAM is below **10%** in presence of aggravating factors;
 - Disease control measures are effective.
- Steps taken and final decisions should always be made in consultation with all stakeholders.
- Guidance criteria (*Annex 26*) relative to local conditions can be used for deciding to close SFP.

3.9. Monitoring and evaluation of SFP

Ongoing monitoring includes regular collection of data at the individual and programme level:

At individual level:

- Progress of individual MAM cases is monitored through bi-weekly follow-up visits to the health facility or TSFP site;

- Individual cases are tracked as they are transferred between components using referral slips and registration numbers.
- Individual nutritional status is not monitored in BSFP because the objective is to provide nutritional protection at population level.

At programme level:

- Monitoring data is used to compile monthly reports at different levels of health care system;
- TSFP outcomes are compared to minimum standard performance indicators (SPHERE standards) (Table 8);
- Timely and correct interpretation of the different indicators by supervisors in charge of the TSFP is essential to highlight problems and allow appropriate and prompt action.
- Supervisors at different levels of health care system do monthly and quarterly supervision.

TABLE 8 Indicators for monitoring TFSP

PERFORMANCE INDICATOR	ACCEPTABLE	ALARMING
Cure rate (%)	> 75	< 50
Death rate (%)	< 3	> 10
Defaulting rate (%)	< 15	> 30
Coverage (%)	Rural: > 50; Urban: > 70; Camp: > 90	< 40

See chapter 7 for details on M & E.

Outpatient therapeutic programme for management of severe acute malnutrition without medical complications in children 6-59 months

4.0	Overview
4.1	Basic requirements for establishing OTP
4.2	Scheduling of OTP services
4.3	Admission criteria for OTP
4.4	Admission procedures for children 6-59 months with SAM
4.5	Follow-up care during treatment in OTP
4.6	Exit criteria
4.7	Discharge procedures for children who are cured
4.8	Monitoring and evaluation of OTP

4.0 OVERVIEW

The Outpatient Therapeutic Programme (OTP) aims to provide home-based treatment and rehabilitation for children 6-59 months with severe acute malnutrition (SAM) without medical complications and with good appetite.

Effective community mobilization, active case finding, referral, and follow-up form the cornerstone of a successful OTP. To establish high coverage and maximize the public health impact, systematic active screening in the community with passive screening at the health facility is essential. To maximize access and coverage, OTP services are offered as an integral part of primary health care and can function either as static or outreach services.

- Static OTP services are offered as routine services at health facilities.
- Outreach OTP services are offered at decentralized outreach sites in the community, especially in an emergency context.

4.1 Basic requirements for establishing OTP

- To set up a functional OTP, the basic requirements listed in Annex 11 must be available.

4.2 Scheduling of OTP services

- At the health facility (PHCU, PHCC and hospital levels), OTP services (including ration distribution) should be offered **DAILY for new admissions**;

- Children already admitted to OTP should attend weekly sessions. If weekly sessions are not possible (e.g., due to poor access or long distances to the facility, seasonal factors/events such as harvest or planting season), bi-weekly appointments can be arranged.

4.3 Admission criteria for OTP

Admission criteria for children 6-59 months with SAM is listed in (Box A).

Box A: OTP admission criteria for children 6-59 months with SAM

- Bilateral pitting oedema + and ++
- OR**
- MUAC < 11.5 cm
- AND/OR**
- Weight-for Height/Length < -3 z-score
- AND**
- Good appetite (passed appetite test for RUTF)
- Clinically well and alert
- ALSO**
- Children discharged from SC/ITP to continue treatment for SAM
- Children transferred from TSFP if condition deteriorates to SAM without complications

4.4 Admission procedures for children 6-59 months with SAM

STEP 1: TRIAGE AND HEALTH/NUTRITION EDUCATION

This takes place in the waiting area of the OTP. Proceed as follows:

- Conduct triage and fast track critically ill patients (see *Chapter 3- section 3.6.2- step 1 and Annex 13 for details*)
- Give 50ml of sugar water (1 tea spoon of glucose/sugar in 50ml of safe water =3 table spoons of water) to any cases with SAM suspected to be at risk of hypoglycaemia (see *Annex 27*).
- Identify cases referred from the community, SC/ITP, TSFP /other OTP/ and other contact points.
- Conduct group health and nutrition education (with focus on MIYCN) for mothers/caregivers of non-critically ill patients and PLW.

STEP 2: SCREENING FOR ACUTE MALNUTRITION

- Screen all children 6-59 months for acute malnutrition, and where necessary refer them following the same procedures described in *Chapter 3 (section 3.6.2- step 2: Screening for acute malnutrition)*.

STEP 3: CLINICAL ASSESSMENT

- For all new SAM cases, take a brief history of feeding practices, assess for signs and symptoms of medical complications, and any health related conditions;
- In addition, ensure all new cases with SAM undergo a medical check¹⁹.
- A trained clinician or other qualified health provider, such as a nurse, should conduct the medical check.
- DO NOT repeat a medical check for cases that have already been seen, and have clinical notes from other care points at the health facility.

STEP 4: APPETITE TEST FOR RUTF

- For children with SAM without medical complications or general danger signs, conduct appetite test for RUTF (see *Annex 28 for more details*).
- Decide if the child has passed appetite test (see Table 9 below).

TABLE 9 Quantities of RUTF for Appetite Test

WEIGHT	PASSES APPETITE TEST	FAILED APPETITE TEST
Less than 4kg	Eats at least ¼ sachet	Eats less than ¼ sachet
4kg and above	Eats at least ⅓ sachet	Eats less than ⅓ sachet

- If the child fails the appetite test: counsel the mother, fill in a referral slip, and refer them to SC/ITP.
- If the child passes the appetite test: Admit to OTP (*see step 5*).

STEP 5: ADMISSION/REGISTRATION IN OTP

- Assign a 3-digit registration number (e.g. 001) and record the child’s information in the OTP register book and treatment card (*Annex 31*).
- Admission categories include:
 - New admissions:
 - New cases:** SAM cases that meet the admission criteria described in Box A above and are directly admitted for SAM treatment in OTP.
 - Relapses:** These are cases that were previously treated in OTP and discharged as “cured”, but again meet admission criteria for OTP within a period of two months (i.e. they have a new episode of SAM).
Children that have relapsed are particularly vulnerable; the fact that they are relapses should be recorded appropriately.
Relapses are given their original registration numbers. If this cannot be found, give a new number but add a postfix to indicate that this is a second admission e.g. 001-2.
 - Old cases /readmissions:
 - Returned defaulters:** cases previously exited from OTP as “defaulters”, who return within a period of 2 months and still fulfill admission criteria for OTP.
 - Returned referrals:** SAM cases who were referred to a hospital/health facility for medical investigation (not in any nutrition programme) and return within their OTP treatment period, to continue treatment for SAM.
 - Transfer in from other OTP:** Cases that started treatment for SAM at a different OTP site, and are then transferred to a new site to continue their treatment. Add ‘R’ to the registration number to indicate that the child is a referral from another OTP, e.g. 001R.
 - Discharges from SC/ITP (follow up cases):** SAM cases that are discharged from inpatient care after stabilization of medical complications.

STEP 6: PROVIDE MEDICAL AND NUTRITIONAL TREATMENT

Routine medications:

- Children admitted directly to OTP should receive routine medications as indicated in Table 10.
- Record the routine medications given in the OTP register and ration card.

TABLE 10 Routine medications and prevention package for children 6-59 months with SAM in OTP

WHAT	WHEN	WHO	DOSE	DELIVERY
ROUTINE MEDICATIONS				
SUGAR WATER (10% dextrose)		Children suspected of hypoglycaemia	50mls	Once at triage
AMOXICILLIN*	At admission	6-11 months	125 mg	3 times a day for 7 days
		>12 months	250mg	
ANTI MALARIAL	At admission if the test for malaria is positive (RDT/ microscopy) OR If the symptoms are suggestive of malaria	2-11 months	ACT ** 25mg/67.5mg	Standard treatment for 3 days as per the malaria treatment guidelines
		12-59 months	50mg/135mg	
ALBENDAZOLE	On second visit only if NOT taken in the last 3 months.	< 1 year	DO NOT GIVE	None
OR	DO NOT give if child is from SC/ITP/ TSFP	12-23 months	200 mg	Single dose
		≥ 2 years	400 mg	Single dose
MEBENDAZOLE	On second visit only if NOT taken in the last 3 months. DO NOT give if child is from SC/ITP/ TSFP	< 1 year	DO NOT GIVE	None
		12-23 months	250 mg	Single dose
		≥ 2 years	500 mg	Single dose
MEASLES VACCINATION***	On admission	From 9 months	Protocol for EPI	Single dose
PREVENTION PACKAGE (IF AVAILABLE)				
SOAP	At admission	All mothers/caregivers of admitted children	For hand washing	Two pieces
BED NET (LLITN)	At admission	All mothers/caregivers of admitted children in malaria prevalent areas	Prevention of malaria	One net

* If a child is receiving cotrimoxazole, s/he should continue.

** Artesunate/Amodiaquine fixed dose combination as first line for cases with uncomplicated malaria. For 2nd line and for cases with complicated malaria, refer to malaria guidelines.

*** Check the child health card of every child and update/or refer for immunizations according to EPI protocols.

IMPORTANT NOTES:

- **Malaria:**
 - On admission, systemically screen all children for malaria regardless of their body temperature. A child with SAM cannot auto-regulate their body temperature well so they tend to adopt the temperature of the environment; thus the child will feel hot on a hot day, and cool on a cool day;
 - Treat the child if their symptoms suggest malaria, even if no diagnostic test is available.
- **Vaccination:**
 - Check the child health card of every child and update/or refer for immunizations according to EPI protocols.
- Care should be taken in prescribing some medicines/supplements for SAM:
 - **Vitamin A:** Do not give vitamin A if the child is taking RUTF²⁰. A high dose of Vitamin A (50 000 IU, 100 000 IU or 200 000 IU, depending on age) is only given to all children with SAM and eye signs of vitamin A deficiency (VAD), or recent measles on day 1, with a second and third dose on day 2 and day 15; or at discharge, irrespective of the type of therapeutic food they are receiving (*for details, refer to the guidelines for inpatient therapeutic care for SAM with medical complications*). **All children with SAM and eye signs of VAD should be referred to SC/ITP for appropriate management.**

- **Oral rehydration solutions (ORS / ReSoMal):** for cases of mild or moderate dehydration, ORS or ReSoMal is not required when the child is taking RUTF; the child only needs to drink plenty of safe water to satisfy their thirst. This is because the correct proportions of electrolytes in ORS are also contained in the RUTF.
- **Iron/folate:** If the child is eating RUTF, these micronutrients are not required for the treatment of mild or moderate anaemia. RUTF contains the correct proportions of iron and folate to treat anaemia. Additional iron may be particularly dangerous for children with SAM, as it may increase the risk of serious infection. Where anaemia is identified according to IMNCI guidelines, conduct relevant investigations, and then treat it accordingly. For severe anaemia, refer to SC/ITP.
- **Zinc:** When the child is eating RUTF do not give him/her additional zinc to treat diarrhoea. There is enough zinc in the RUTF to provide a therapeutic dose. Additional zinc may displace the absorption of copper from the RUTF, making the child more prone to infection due to immunosuppression.
- **Multiple micronutrient tablets/powders/Sprinkles:** Do not give multiple micronutrient tablets/ powders/ sprinkles to children eating RUTF. The proportions of micronutrients in RUTF are carefully formulated to provide the correct amounts of macronutrients and micronutrients required for recovery.
- In addition to the routine medications for OTP, when there is a need to treat certain illnesses, specific medicines for such illnesses may be given according to IMNCI protocols.
- Ideally, all children with SAM who are admitted to OTP should be provided with counselling and testing for HIV and screening for TB.
- In case HIV/TB services are not available at the OTP sites, the children with SAM should be referred to the nearest health facility where the services exist.
- In the context where access to HIV/TB testing is limited, the non-respondents should be prioritized.

Nutritional treatment:

- Ready-to-use therapeutic food (RUTF) is the product used for nutritional treatment of SAM in OTP (*see Annex 33 for more details on RUTF*).
- The nutritional treatment is managed at home. Children receive weekly rations of RUTF to eat at home.

Quantities of RUTF to provide at each OTP session:

- Each sachet of RUTF of 92g provides 500Kcal.
- A child undergoing treatment for SAM should take in approximately 200Kcal/Kg/day.
- Provide a weekly supply of RUTF based on the child's body weight using the RUTF look-up table (*see annex 29*);
- Record the required ration both in the OTP register book and the OTP ration card (*Annex 32*).

STEP 7: PROVIDE HEALTH AND NUTRITION EDUCATION

- At admission, explain to the mother/caregiver reasons why the child has been admitted to OTP. Explain principles for treatment, including the daily amount the child will need to consume, any medical action taken, and offer advice for home care;
- Explain and demonstrate how to open the RUTF sachet, how to feed the child, how to roll up the sachet after feeding to prevent the contamination of the remaining RUTF, and how to store RUTF at home. Use the key messages in *Annex 30*;

- It is very important to encourage mothers/caregivers to return to the health facility at any time if the child's condition deteriorates;
- Ensure that the information given is clearly understood by asking some simple questions.

STEP 8: PROVIDE A PREVENTION PACKAGE

- Give and record prevention items, if available (see *Table 10*);

STEP 9: MAKE AN APPOINTMENT FOR NEXT VISIT

- Give weekly appointments for mothers/caregivers to return with their children to the health facility/ OTP site for follow up. Record this in the OTP register book, OTP treatment and ration cards.
- Emphasize the importance of follow-up visits;
- To monitor consumption, mothers/caregivers may be asked to return empty RUTF sachets at each follow-up visit.

STEP 10: DISPENSE THE REQUIRED RUTF UNTIL NEXT VISIT

- Dispense the prescribed RUTF.
- Give the OTP ration card to the mother/caregiver and tell them to bring it to their next visit.

4.5 Follow-up care during treatment in OTP

At each follow-up visit at the health facility;

- Conduct education and counselling sessions using standardized education messages (see *Chapter 6*). Special attention should be paid to optimal MIYCN practices, hygiene and sanitation.
- Monitor the progress of each child.
- Monitor the same parameters indicated in *Table 6*.
- Assess if the child is improving or not.
- Discuss with the mother/caregiver about the child's progress and any action taken. Give advice for home care.
- Refer children with health problems to a clinician for a medical check;
- Administer routine medication as required (see *table 10*);
- Identify children meeting exit criteria for cured, defaulter, non-respondent, death, transfer or referral for medical investigation. Record exit outcome in the OTP register book.
- For cases who are not improving (see *table 11*), investigate possible causes of failure to respond (see *Box B*) and use the OTP action protocol (*annex 34*) to decide whether to:
 - Request HHPs to conduct a home visit, assess home environment/reasons for failure to respond, and then report on their findings;
 - Transfer the child to SC/ITP;
 - Refer the child for medical investigation;
- For all cases that are referred, fill in a referral form (*Annex 9*).

Note: referral to inpatient care may be conducted if requested by the mother/caregiver or a substitute caregiver (in case of major illness or death of the mother/or main caregiver).

TABLE 11 Criteria for defining failure to respond in OTP

CRITERIA FOR FAILURE TO RESPOND	TIME AFTER ADMISSION
PRIMARY FAILURE TO RESPOND*	
Failure to gain any weight (non-oedematous children)	21 days
Failure to start to lose bilateral pitting oedema	14 days
Bilateral pitting oedema still present	21 days
Successive weight loss since admission to program (non-oedematous children)	14 days
SECONDARY FAILURE TO RESPOND*	
Failure of appetite test	At any visit
Static weight	For 21 days
Weight loss for two successive visits	At any visit
Weight below admission weight	After 21 days

* Primary failure to respond refers to the criterion that has been noticed since admission. Secondary failure to respond applies when the child has shown improvement and then later deteriorates as described by the criteria

Box B: Examples of frequent causes of failure to respond to treatment in OTP

- Problems related to quality of the treatment:
 - Inappropriate evaluation of child’s health condition or missed medical complication;
 - Inappropriate evaluation of appetite test;
 - Poor adherence to RUTF protocol;
 - Poor adherence to routine medication protocol;
 - Inadequate guidance for home care provided to mother/ caregivers;
 - Excessive time between OTP follow-up visits (e.g. visits after every 2 weeks give significantly worse results than weekly visits);
 - Stock out of RUTF leading to irregular re-fills.
- Problems related to home environment:
 - Inadequate intake or sharing of RUTF and/or medicines with other members of the family;
 - Irregular attendance/ missed appointments of follow-up visits;
 - Unwilling caregiver or mother/caregiver overwhelmed with other work and responsibility.



DON'T FORGET:

Don't forget to refer NON-RESPONDENTS for medical investigation, including but not limited to:

- Counselling and testing for HIV
- Screening for TB

4.6 Exit criteria

The various forms of exiting children from OTP are listed in Table 12.

TABLE 12 Exit criteria for OTP

FORMS OF EXIT	EXIT CRITERIA	ACTION TO TAKE
Cured	For a child admitted by MUAC: <ul style="list-style-type: none"> MUAC \geq 11.5cm for at least 2 consecutive visits* OR For a child admitted by WFH/L: <ul style="list-style-type: none"> WFH/L \geq -3 z-score for at least 2 consecutive visits* AND <ul style="list-style-type: none"> No bilateral pitting oedema for 2 consecutive visits AND <ul style="list-style-type: none"> Child is clinically well and alert 	<ul style="list-style-type: none"> Record outcome in the OTP register book as "cured" Give final ration (1 week) Fill a referral slip and refer to TSFP Link child/mother/caregiver to other primary health care services and other initiatives (see Chapter 2 [step 6])
Defaulter	Child was absent for 2 consecutive visits	<ul style="list-style-type: none"> Record outcome in the OTP register book as "defaulter" Request for home visit
Non-respondent	Child did not meet discharge criteria after 3 months in OTP	<ul style="list-style-type: none"> Record outcome in the OTP register book as "non-respondent" Refer for medical investigation
Transfer out	Child referred to SC/ITP or another OTP	<ul style="list-style-type: none"> Record outcome in the OTP register book as "Transfer out" Fill a referral slip (include treatment given and the reason for transfer)
Died	Child died while registered in OTP	<ul style="list-style-type: none"> Record outcome in the OTP register book as "died"
Medical Transfer/referral	Child referred to a hospital or health facility and not in any nutrition programme	<ul style="list-style-type: none"> Record outcome in the OTP register book as "medical transfer" Fill a referral slip (include treatment given and the reason for transfer)

*In the context where there is no TSFP, children 6-59m with SAM should only be discharged from OTP when:

- MUAC is \geq 12.5 cm for 2 consecutive visits
- OR**
- WFH/L is \geq -2 z-score for 2 consecutive visits
- AND**
- No bilateral pitting oedema for 2 consecutive visits
- AND**
- Clinically well and alert



IMPORTANT NOTES:

- The same anthropometric indicator that is used during admission to confirm SAM should also be used during discharge to assess whether a child has reached nutritional recovery.
- Children admitted with bilateral pitting oedema should be discharged from treatment based on absence of bilateral pitting oedema AND MUAC criteria.
- If there is no TSFP, necessary procedures should be followed to apply the "expanded criteria".

4.7 Discharge procedures for children who are cured

STEP 1: IDENTIFY CHILDREN WHO MEET THE EXIT CRITERIA FOR “CURED”

- Ensure the child meets the criteria for “cured” (Table 12). The same anthropometric criteria that was used for admission is used to discharge the child.

STEP 2: PREPARE CHILDREN FOR DISCHARGE

- Record discharge outcome in the OTP register book and OTP ration card. Inform the mother/caregiver about the final outcome;
- Check immunization card for vaccinations and link with EPI department;
- Counsel mother/caregiver on good feeding and care practices, with emphasis on optimal MIYCN and WASH practices;
- Advise the mother/caregiver to immediately go to the nearest health facility if the child refuses to eat or has any of the following signs:
 - High fever;
 - Frequent watery stools (diarrhoea²¹) or stools with blood;
 - Difficult or fast breathing;
 - Vomiting;
 - Not alert, very weak, unconscious, convulsions;
 - Bilateral pitting oedema.
- Give and record the final ration of RUTF (one week supply);
- Fill referral slip, refer child to the nearest TSFP for follow up, and ensure continuum of care so the mother/caregiver understands the importance of follow-up care to prevent relapse.
- For cases discharged after full nutritional recovery (where there is no TSFP), ensure that at discharge the child receives a high dose vitamin A (depending on age).
- Also advise the mother/caregiver to ensure that the child receives Vitamin A, and treatment for parasitic infestation (deworming tablets) after every 6 months.

4.8 Monitoring and evaluation of OTP

It is important to monitor OTP services to ensure quality in service delivery. This includes:

- **Individual level;**
 - Progress of individual SAM cases is monitored through weekly follow-up visits to the health facility/OTP site;
 - Individual cases are tracked as they are transferred between different components (SC/ITP, OTP and TSFP) using referral slips and registration numbers.
- **Programme level;**
 - Monitoring data is used to compile monthly reports at different levels of health care;
 - Programme outcomes are compared to minimum standard performance indicators (Sphere standards) (Table 13);
 - Timely and correct interpretation of the different indicators by supervisors in charge of the OTP is essential to highlight problems and allow appropriate and prompt action.
 - Monthly and quarterly supervision is done by supervisors at different levels of the health care system.

TABLE 13 Indicators for monitoring OTP

PERFORMANCE INDICATOR	ACCEPTABLE	ALARMING
Cure rate (%)	>75	<50
Death rate (%)	<10	>15
Defaulting rate (%)	<15	>25
Coverage (%)	Rural: > 50; Urban: > 70; Camp: > 90	<40

See chapter 7 for details on M & E for OTP

Management of acute malnutrition in the context of HIV/AIDS/TB/Kala Azar and older people (≥ 60 years)

5.0	Overview
5.1	Relevant recommendations for the management of HIV-infected children with SAM
5.2	Management of SAM in children ≥ 5 years, adolescents, and adults in the context of HIV/AIDS/TB/Kala Azar and the older people in OTP
5.3	Management of MAM in children ≥ 5 years, adolescents, and adults in the context of HIV/AIDS/TB/Kala Azar and the older people in TSFP

5.0 OVERVIEW

People infected with HIV/AIDS/TB/Kala Azar²² are at an increased risk of acute malnutrition due to increased energy and nutrient requirements coupled with reduced food intake. In addition, older people (≥ 60 years), with or without HIV/AIDS/TB/Kala Azar or other chronic illnesses, have an increased risk to acute malnutrition due to effects of aging²³.

Screening for acute malnutrition in these vulnerable groups should be conducted at all care points for HIV/AIDS/TB/Kala Azar and older people (≥ 60 years), both in the community and at the health facility level. All cases identified with acute malnutrition should be referred for appropriate treatment, care, and support, regardless of age.

5.1. Relevant recommendations for the management of HIV-infected children with SAM

- All HIV-exposed infants and children (including those with severe acute malnutrition) should be tested for HIV status;
- In settings where the HIV infection is common (HIV prevalence more than 1%), children with severe acute malnutrition should be tested for HIV, in order to establish their HIV status, and to determine their need for antiretroviral drug treatment in accordance with the HIV/AIDS guidelines;
- Children living with HIV who have any one of the following symptoms may have TB and should be evaluated for TB and other conditions:
 - Poor weight gain;
 - Fever;
 - Current cough (lasting more than 2 weeks) or contact history with a TB case.
- Children with SAM who are HIV infected and who qualify for lifelong antiretroviral therapy should be started on antiretroviral drug treatment as soon as possible, after sepsis and metabolic complications are stabilized. This would be indicated by return of appetite and resolution of severe oedema.
- HIV-infected children with SAM should be given the same antiretroviral drug treatment regimens, in the same doses, as children with HIV who do not have SAM. HIV-infected children with SAM who are started

on antiretroviral drug treatment should be monitored closely (inpatient and outpatient) in the first 6–8 weeks following initiation of antiretroviral therapy, to identify early metabolic complications and opportunistic infections.

- Children with SAM who are HIV infected should be managed with the same therapeutic feeding approaches as children with SAM who are not HIV infected.

5.2 Management of SAM in children ≥ 5years, adolescents, and adults, in the context of HIV/AIDS/TB/Kala Azar and older people in OTP

5.2.1 SCREENING FOR ACUTE MALNUTRITION IN THE CONTEXT OF HIV/AIDS/TB/KALA AZAR AND OLDER PEOPLE

- Screening for acute malnutrition in people infected/exposed/suspected to be infected with HIV/TB/Kala Azar should be conducted at all contact points in the community and health facility;
- Identifying people infected with HIV/TB at community level might be difficult due to stigma and the need for confidentiality. For this reason, nutritional screening can be conducted through community-based associations of people living with HIV.

TABLE 14 Admission and discharge criteria for children ≥ 5years, adolescents and adults with SAM in OTP in the context of HIV/AIDS/TB/ Kala Azar

CATEGORY	ADMISSION CRITERIA	DISCHARGE CRITERIA
5 to 19 years	<ul style="list-style-type: none"> • Bilateral pitting oedema+, ++ OR • BMI-for-age < -3 z-score OR • MUAC < 13.5 if 5-9 years* • MUAC < 16.0cm if 10-14 years * AND • Good appetite (passed appetite test for RUTF) • Without medical complications AND • Discharges from SC/ITP to continue treatment for SAM • Transfers in from TSFP if condition deteriorates to SAM without medical complications 	<ul style="list-style-type: none"> • BMI-for-age ≥ -3 z-score for 2 consecutive visits OR • MUAC ≥ 13.5 cm if 5-9 years* for 2 consecutive visits • MUAC ≥ 16.0 if 10-14 years* for 2 consecutive visits AND • No bilateral pitting oedema for 2 consecutive visits • Clinically well and alert
Adults (>19 years)	<ul style="list-style-type: none"> • Bilateral pitting oedema+, ++ OR • MUAC < 19.0cm* OR • BMI < 16 kg/m² AND • Good appetite (passed appetite test for RUTF) • Without medical complications AND • Discharges from SC/ITP to continue treatment for SAM • Transfers in from TSFP if condition deteriorates to SAM without medical complications 	<ul style="list-style-type: none"> • MUAC ≥ 19.0cm* for 2 consecutive visits OR • BMI ≥ 16kg/m² for 2 consecutive visits AND • No bilateral pitting oedema for 2 consecutive visits • Clinically well and alert

Note: There is currently no agreement for the measurement and interpretation of MUAC cut offs in children ≥ 5 years, adolescents in adults. These MUAC cut offs were adapted for detection of acute malnutrition in clients with HIV/AIDS from guidelines in the region and will be used for detection of acute malnutrition in HIV/TB/Kala Azar cases until new evidence is available

*Source: Consolidated Clinical Guidelines on Use of Antiretroviral Drugs for HIV Treatment and Prevention (MOH, 2014)



IMPORTANT NOTES:

- Oedema in adults and older people is most often due to medical conditions and should be interpreted with caution. Refer to a clinician for investigation to rule out medical causes.
- Management of SAM in OTP in the context of HIV/AIDS/TB and Kala Azar in children 6-59 months follows the same protocols for children 6-59 months who are not infected with HIV /TB and Kala Azar (see chapter four).
- Cases discharged from OTP are referred to TSFP to continue nutrition treatment

- Therefore, CHWs at the PHCUs and PHCCs together with the HHPs/volunteers should organize community outreaches for this purpose.
- The outreaches can also be used as opportunities to educate and sensitize these people on prevention of malnutrition through ensuring good nutrition and health practices.

5.2.2 ADMISSION AND DISCHARGE CRITERIA FOR CHILDREN ≥ 5 YEARS, ADOLESCENTS AND ADULTS WITH SAM IN THE CONTEXT OF HIV/TB/KALA AZAR IN OTP

- All children ≥ 5 years, adolescents, and adults with SAM who are infected with HIV/TB/Kala Azar and who meet the criteria in Table 14 below should be admitted and managed in OTP. 5.2.3 Admission and discharge criteria for older people with SAM in OTP

5.2.3 ADMISSION AND DISCHARGE CRITERIA FOR OLDER PEOPLE WITH SAM IN OTP

All the older people (≥ 60 years) with SAM, who meet the criteria in Table 15, should be admitted and managed in OTP. See section 5.2.4 for special considerations at admission.

TABLE 15 Admission and discharge criteria for older people (≥ 60 years) with SAM in OTP

ADMISSION CRITERIA	DISCHARGE
<ul style="list-style-type: none"> • Bilateral pitting oedema+, ++ <p>OR</p> <ul style="list-style-type: none"> • MUAC is < 18.5 cm <p>AND</p> <ul style="list-style-type: none"> • Good appetite (passed swallowing test for RUTF) • Clinically well and alert <p>ALSO</p> <ul style="list-style-type: none"> • Discharges from SC/ITP to continue treatment for SAM • Transfers in from TSFP if condition deteriorates to SAM without medical complications 	<ul style="list-style-type: none"> • MUAC: ≥ 18.5 cm for at least 2 consecutive visits <p>AND</p> <ul style="list-style-type: none"> • No bilateral pitting oedema for 2 consecutive visits • Clinically well and alert

Note: Cases discharged from OTP are referred to TSFP to continue nutrition treatment



IMPORTANT NOTES:

- Nutritional screening, treatment and support should be an integral component of HIV/AIDS/TB/Kala Azar prevention, care, treatment and support programmes;
- The exit criteria for defaulters, died and transfer from OTP is similar irrespective of age category and HIV/TB/Kala Azar status (see section 4.6).
- In the context of Kala Azar, non-respondents are SAM cases who fail to meet the discharge criteria after 3 months in OTP
- In the context of HIV/AIDS/TB, non-respondents are SAM cases who fail to meet the discharge criteria after 6 months in OTP

5.2.4 SPECIAL CONSIDERATIONS AT ADMISSION

Children, adolescents and adults with HIV/AIDS/TB/Kala Azar and older persons with SAM are a special group and should be handled with care. At admission special considerations for these cases should include the following:

- Confidentiality, feeling of safety and respect for privacy;
- Clear instructions and explanations about routine medications and nutritional treatment;
- Referral for continuous follow-up and specialized medical care as needed.

5.2.5 ROUTINE MEDICATIONS AND NUTRITIONAL TREATMENT FOR SAM IN THE CONTEXT OF

HIV/AIDS/TB/KALA AZAR AND THE OLDER PEOPLE IN OTP

Routine medications:

These are the same regardless of HIV/TB/Kala Azar status or age category (refer to chapter 4 Table 10). Medicines should be administered in age and/or weight appropriate doses.

Nutritional treatment:

- The diet is based on several meals of local foods enriched with oil and vitamins, with RUTF taken as snacks (i.e. between meals), in order to reach 70 to 100kcal/kg/day. A large amount of RUTF (≥ 8 sachets/day) may not be generally acceptable and palatable as it is too sweet for adults.
- Older children, adolescents, adults, and older people should be allowed to eat a wide variety of foods and as much as they want.
- Provide detailed and clear information on the use of RUTF at home. Check that the information has been understood.
- BP-100 is recommended as an alternative to RUTF for treating SAM. BP-100 can be eaten as a biscuit directly from the pack, or crumbled into water and eaten as porridge.
- To make porridge, use 200ml of boiled drinking water per “meal pack” consisting of two BP-100 tablets (2x28.4g). One bar (two tablets) of BP-100 contains 300kcal. Intake of at least 250-300ml drinking water for each bar of BP-100 consumed is recommended.
- RUTF or BP-100 should be provided as shown in *Table 16*.

TABLE 16 Amounts of BP100 and RUTF for adolescents, adults, and older people (≥ 60 years) with SAM in OTP

CLASS OF WEIGHT (KG)	AMOUNT OF BP100		RUTF	
	NUMBER OF BARS PER DAY	NUMBER OF BARS PER WEEK	SACHETS PER DAY	SACHETS PER WEEK
< 20.0			5	35
20.0 - 29.9	10	70	6	42
30.0 - 39.9	12	84	7	49
≥40	14	98	8	58

Source: *HelpAge International (2013)*

5.2.6 HEALTH AND NUTRITION EDUCATION SESSIONS

- In addition to the usual health and nutrition education sessions held for SAM cases and their caregivers in OTP, it is very useful to organize nutritional counselling related to the specific needs of these groups. For example:
 - In the context of HIV/AIDS/TB/Kala Azar, the following topics can be discussed:
 - i. Dietary management of conditions that may increase nutrient loss (e.g. diarrhoea and vomiting);
 - ii. Conditions that impair ingestion of food (e.g., oral candidiasis).
 - The older people can be counselled on recommended nutrition and lifestyle interventions in relation to physiological changes due to aging.
- While conducting the educational sessions for the older people, you should take into account the level of literacy as well as the difficulties faced with vision and hearing, which can impact their ability to take in new information quickly.
- Grandparents (particularly grandmothers) are often the caregivers of the children and should be targeted for education activities.
- Use the key messages in Annexes 35-37.

5.3 Management of MAM in children ≥ 5years, adolescents and adults, in the context of HIV/AIDS/TB/Kala Azar and the older people in TSFP

5.3.1 ADMISSION AND DISCHARGE CRITERIA FOR CHILDREN ≥ 5 YEARS, ADOLESCENTS, AND ADULTS WITH MAM AND IN THE CONTEXT OF HIV/TB/KALA AZAR IN TSFP

All children ≥ 5years, adolescents, and adults with MAM who are infected with HIV/TB/Kala Azar and meet the criteria in Table 17, should be admitted and managed in TSFP. See *section 5.2.4* for special considerations at admission

TABLE 17 Admission and discharge criteria for children ≥ 5 years, adolescents, and adults with MAM in TSFP in the context of HIV/TB/ Kala Azar

CATEGORY	ADMISSION CRITERIA	DISCHARGE CRITERIA
Children and adolescents (5 to 19 years)	<ul style="list-style-type: none"> BMI-for-age ≥ -3 < -2 z-score OR <ul style="list-style-type: none"> MUAC ≥ 13.5 < 14.5cm if 5-9 years* MUAC ≥ 16.0cm < 18.5cm if 10-14 years* AND <ul style="list-style-type: none"> Good appetite Clinically well and alert ALSO <ul style="list-style-type: none"> Discharges from SC/ITP Discharges from OTP 	<ul style="list-style-type: none"> BMI-for-age ≥ -2 z-score for 2 consecutive visits OR <ul style="list-style-type: none"> MUAC ≥ 14.5cm if 5-9 years* for 2 consecutive visits MUAC ≥ 18.5cm if 10-14 years* for 2 consecutive visits AND <ul style="list-style-type: none"> Clinically well and alert AND <p>For Kala Azar/TB patients:</p> <ul style="list-style-type: none"> On completion of treatment (usually 6 months for TB patients) <p>For HIV/AIDS clients:</p> <ul style="list-style-type: none"> If Viral load (HIV-1 RNA) is <50 copies/ml**
Adults (>19 years)	<ul style="list-style-type: none"> MUAC: ≥19.0cm < 22.0cm* OR <ul style="list-style-type: none"> BMI ≥16 < 17kg/m² AND <ul style="list-style-type: none"> Good appetite (determined from history taking) Clinically well and alert ALSO <ul style="list-style-type: none"> Discharges from SC/ITP in the context where there is no nearby OTP Discharges from OTP 	<ul style="list-style-type: none"> MUAC ≥ 22.0cm* for 2 consecutive visits OR <ul style="list-style-type: none"> BMI ≥ 18.5kg/m² for 2 consecutive visits AND <ul style="list-style-type: none"> Clinically well and alert AND <p>For Kala Azar/TB patients:</p> <ul style="list-style-type: none"> On completion of treatment (usually 6 months for TB patients) <p>For HIV/AIDS clients:</p> <ul style="list-style-type: none"> If Viral load (HIV-1 RNA) is <50 copies/ml**

Note: There is currently no agreement for the measurement and interpretation of MUAC cut offs in children ≥5 years, adolescents in adults. These MUAC cut offs will be used for detection of acute malnutrition in HIV/TB/Kala Azar cases until new evidence is available

*Source: Consolidated Clinical Guidelines on Use of Antiretroviral Drugs for HIV Treatment and Prevention (MOH and WHO, 2014)

** At the minimum, monitoring of viral load should take place at 4, 8, 12 and 24 weeks after ART initiation and should subsequently be performed every 4-6 months once the patient has been stabilized on therapy. This should be determined by the HIV treatment provider.



IMPORTANT NOTES:

- Management of MAM in TSFP in the context of HIV/AIDS/TB and Kala Azar in children 6-59 months follows the same protocols as those for children 6-59 months who are not infected with HIV/TB and Kala Azar (see chapter three, section 3.6)
- The exit criteria for defaulters, died, and transfer from TSFP is similar irrespective of age category and HIV/TB/Kala Azar status (section 3.6.4)
- In the context of Kala Azar, non-respondents are MAM cases who fail to meet the discharge criteria after 3 months in TSFP
- In the context of HIV/AIDS/TB, non-respondents are MAM cases who fail to meet the discharge criteria after 6 months in TSFP

5.3.2 ADMISSION AND DISCHARGE CRITERIA FOR THE OLDER PEOPLE (≥60 YEARS) WITH MAM IN TSFP

The TSFP admission criteria for older people (≥ 60years) with MAM is indicated in *Table 18*.

TABLE 18 Admission and discharge criteria for the older people (≥60 years) with MAM in TSFP

ADMISSION CRITERIA	DISCHARGE CRITERIA
<ul style="list-style-type: none"> MUAC is ≥ 18.5 < 21.0cm <p>AND</p> <ul style="list-style-type: none"> Good appetite (determined from history taking) Clinically well and alert <p>AND</p> <ul style="list-style-type: none"> Discharges from SC/ITP Discharges from OTP 	<ul style="list-style-type: none"> MUAC is ≥ 21.0cm for at least 2 consecutive visits. <p>AND</p> <ul style="list-style-type: none"> Clinically well and alert

5.3.3 ROUTINE MEDICATIONS AND NUTRITIONAL TREATMENT FOR MAM IN THE CONTEXT OF HIV/AIDS/TB/KALA AZAR AND OLDER PEOPLE IN TSFP

- The protocols for treating MAM in TSFP (routine medications and the ration) are the same regardless of age, or HIV/TB/Kala Azar status (*refer to chapter 3, Tables 4, 5 for routine medications and Table 2 for the rations*).
- Older people (≥60 years) with MAM should be given anthelmintic (deworming) tablets in small doses and should also receive folic acid (see table 19).
- On top of the usual educational sessions for TSFP, provide additional specific education and counselling sessions (*see section 5.2.6 above*)

TABLE 19 Dosage of anthelmintics and folic acid for the older people (≥ 60 years) with MAM in TSFP

MEDICATION	DOSAGE	
Anthelmintics*	Mebendazole	200mg per day for 3 days, or 100mg per day for 5 days
	Albendazole	400mg single dose
Folic acid	10-20mg for 30 days	

*Worm infestations are usually endemic, especially in situations of poor sanitation. Extremely ill or weak people should only be treated when they are stronger. Note: When fortified blended foods are not available, high-energy biscuits (such as BP-5™) are sometimes used for supplementary feeding. They can be dissolved in water or used as porridge for older people with teeth or gum problems. To make porridge, use 200ml of boiled lukewarm safe drinking water per food bar. One bar of BP-5™ provides 254kcal.



IMPORTANT NOTES:

- Children 6-59 months, older children ≥ 5 years, adolescents, and adults with disabilities such as difficulty or obstruction with chewing, swallowing, or eating normal ration foods have increased risk of acute malnutrition. This may be due to conditions such as:
 - Severe cerebral palsy (CP), resulting in inability to eat/swallow solid foods;
 - Cleft palate;
 - Dysphagia (inability to swallow) due to underlying condition.
- Children 6-59 months, older children ≥5 years, adolescents, and adults with moderate acute malnutrition and any of the above conditions without other medical complications, are eligible for TSFP.
- As the rations may be too heavy for them to carry back home, mechanisms should be put in place in the community to help transport OTP and TSFP rations for older people with SAM or MAM who are bedridden, and those who lack caregivers.
- HHPs/volunteers should make regular home visits to check on the health and nutritional status of beneficiaries who are bed ridden or have difficulties walking.

Prevention of malnutrition

6.0	Overview
6.1	Nutrition-specific interventions and programmes
6.2	Nutrition-sensitive interventions and programmes
6.3	Health/nutrition education and counselling

6.0 OVERVIEW

Successful management of acute malnutrition requires that treatment interventions be complemented with preventive interventions aimed at addressing the root causes of malnutrition.

This will prevent relapse in successfully treated cases and reduce the risk of development of acute malnutrition in children under five years, PLW, and other vulnerable groups. Preventive measures include nutrition specific and nutrition sensitive interventions and programmes.

6.1 Nutrition-specific interventions and programmes

- These mainly address the immediate causes of malnutrition (i.e. inadequate dietary intake and ill-health).
- However, these interventions can also address some of the underlying causes such as feeding, care giving, and parenting practices, and access to food. Some examples include:
 - Adolescent, pre-conception, and maternal health and nutrition;
 - Maternal dietary or micronutrient supplementation;
 - Promotion of optimum MIYCN practices including, BSFP;
 - Dietary supplementation, diversification, and micronutrient supplementation or fortification for children;
 - Disease prevention and management;
 - Nutrition interventions in emergencies

6.2 Nutrition-sensitive interventions and programmes

- These address the underlying causes of malnutrition (access to food, care practices, access to health services, safe and hygienic environment) and basic causes of malnutrition (e.g. social, economic, political and environment factors).
- They also can serve as delivery platforms for nutrition-specific interventions. Some examples include:
 - Agriculture and food security programmes;
 - Social safety nets;
 - Early childhood development (ECD);
 - Maternal mental health;
 - Women's empowerment;
 - Child protection;

- Water, sanitation and hygiene (WASH);
- Health and family planning services;
- Classroom education (schooling).
- Each intervention/programme is most effective when combined with other strategies.
- This chapter focuses on health/nutrition education and counselling as a modality for promoting some of the above programmes/interventions.

6.3 Health/nutrition education and counselling

Health/nutrition education and counselling involves a combination of education strategies designed to:

- Increase knowledge and awareness;
- Change attitudes;
- Promote positive behaviours and practices for adequate health and nutrition of individuals and communities.

6.3.1 TARGET GROUPS

The main target groups among others are:

- Mothers/care givers of children under five years;
- Pregnant and lactating women with infant less than 6 months;
- Children ≥ 5 years, adolescents and adults with chronic conditions such as HIV/TB/Kala Azar, diabetes, hypertension and other chronic illnesses;
- Older people (≥ 60 years).

6.3.2 CHANNELS USED TO PROVIDE HEALTH/NUTRITION EDUCATION AND COUNSELLING

- For effective message delivery, a combination of different channels should be used. Examples include:
 - Health facility consultations;
 - Nutrition sites (OTP, TSFP, BSFP, SC/ITP);
 - General food distribution (GFD) sites;
 - Community meetings and events such as dramas, health games;
 - Mass campaigns and awareness creation events;
 - Peer-to-peer education;
 - Employee education seminars;
 - Electronic media (radio, short messaging services [SMS], television);
 - Print media (brochures, booklets, posters, flyers, banners, billboards);
 - Other promotional materials like branded T-shirts; calendars, pens, umbrellas, car tyre covers etc.);
 - Megaphones.
- Messages can be passed on through group and individual discussions.
- Alternatively, messages may be combined with entertainment through storytelling, participatory theatre, puppet theatre, music and dance.
- Most of the tools used should be color-coded, and or in pictorial form and include CMAM /MIYCN counselling cards, cholera, Kala Azar IEC materials, brochures and posters, among others.
- Use of local dialect and simplified language is essential.

6.3.3 PROCEDURES FOR PLANNING A HEALTH AND NUTRITION EDUCATION SESSION

- Determine the target audience;
- Identify a topic for discussion and review information on the topic to ensure it is update;
- Make objectives for the session (they should be SMART: S-Specific; M-Measurable; A-Attainable; R-Realistic; T-Time bound);
- Communicate the date, time, venue and topic for discussion;
- Choose an appropriate participatory and interactive approach that facilitates learning;
- Pre-test the communication channel and the messages;
- Prepare all the materials needed for the session (e.g. hand-outs, flyers, counselling cards, flip charts, posters, demonstration materials) and prepare brief prompting notes;
- Monitor and evaluate the communication channels and messages and make any appropriate adjustment.

6.3.4 TOPICS FOR HEALTH/NUTRITION EDUCATION AND COUNSELLING

The topics for discussion will depend on identified needs and context. Some of the main topics include:

Importance of good nutrition:

- Nutrients, locally available nutrient dense foods, and the importance of a varied diet;
- Causes, consequences and prevention of malnutrition;
- FSL intervention;
- Balanced diet for other vulnerable groups (older people ≥ 60 years; children, adolescents, and adults with HIV/AIDS/ TB and Kala Azar, and people with disabilities such as cerebral palsy, cleft palate and dysphagia).

Promotion of optimal maternal, infant and young child nutrition (MIYCN) practices:

- Maternal nutrition (micronutrient supplementation, balanced diet during pregnancy and lactation);
- Early initiation of breastfeeding within one hour after delivery;
- Exclusive breastfeeding from zero to six (0-6) months;
- Continued breastfeeding up to 2 years and beyond;
- Optimal complementary feeding, including introduction of semi-solid and solid foods at 6 months;
- Feeding children during illness and those who refuse to eat;
- Maternal, infant and young child nutrition in the context of HIV/AIDS.

Refer to Annex 39 for more details

Promotion of hygiene and sanitation:

- Water, sanitation and hygiene (WASH);
- Food hygiene;
- Personal hygiene.

Refer to Annex 36 for key messages on recommended WASH practices

NOTE: Adequate water supply is essential in order to promote good hygiene practices. If there is inadequate water supply at the health/nutrition facility, bring water in jerry cans. If facilities lack hand-washing stations, report to the WASH sector and adjust hygiene messages if needed (for example discuss alternatives for hand-washing with water and soap, but using ashes or sand instead).

Links to accelerated child survival interventions:

- Activities for treatment and prevention of acute malnutrition are closely linked to the child survival interventions such as EPI, iCCM, IMNCI, GMP etc.
- Emphasis should be placed on the following subtopics:
 - Importance of child growth monitoring and promotion;
 - How to read the child growth curve, and to seek further help when static weight is noticed;
 - Importance of immunization;
 - Referrals for GMP and EPI;
 - Recognizing general danger signs;
 - Early health seeking behaviours.



REMEMBER:

- Health and nutrition education messages should be linked to the key objectives of the programme;
- The key messages should be reinforced by practical sessions and repeated at every opportunity at the programme sites, during home visits, and outreaches at the community level.

CHAPTER 7

Monitoring, Supervision, Reporting, and Evaluation

7.0	Overview
7.1	Monitoring and evaluation (M & E) at community level
7.2	M & E of OTP/TSFP/BSFP
7.3	Programme supervision
7.4	Programme reporting
7.5	Programme evaluation
7.6	CMAM data collection tools

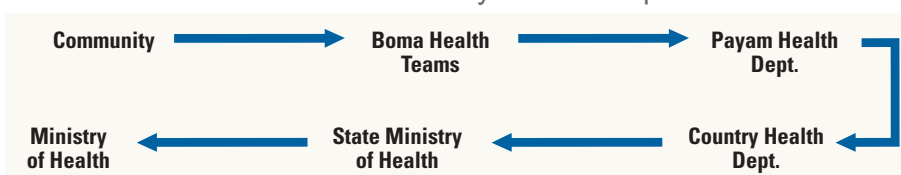
7.0 OVERVIEW

Monitoring, supervision, reporting, and evaluation (M & E) of CMAM activities, inputs, outputs and outcomes are important to ensure quality nutrition service delivery. A well-designed M& E system for CMAM identifies gaps in implementation and provides information for ongoing needs assessment, advocacy, planning, programming, accountability, and continuous improvement.

7.1 Monitoring and evaluation (M & E) at the community level

- Individual SAM and MAM cases that are admitted in the nutrition programmes are tracked and monitored in the community by HHPs/Volunteers.
- At the programme level, the main activities to be monitored in the community include:
 - Frequency of community mobilization activities, including the number and type of community groups/ key stakeholders involved;
 - Number of trained community health and nutrition service providers by type (e.g. HHPs/ Volunteers, MtMSG, among others);
 - Number of cases being referred into the programme through active case finding;
 - Information on main reasons for defaulting, low uptake, and linkages made with community services, programmes, and initiatives for prevention of acute malnutrition.
- Data on daily nutrition screening in the community by the HHPs/volunteers are recorded using tally sheets (*Annex 40*).
- On a monthly basis, the HHPs/volunteers compile reports (*see annex 41*).
- The flow of nutrition reports from the community is in line with the BHI as shown in figure 6:

FIGURE 6 Flow chart for community nutrition reports



- HHPs/volunteers should attend regular meetings at the Boma on a monthly or quarterly basis
- The Boma Health Teams (BHT) are responsible for monitoring and supervising activities of the HHPs/volunteers.
- The BHT provide the link between the health facility and the community.

7.2 M & E of OTP/TSFP/BSFP

- M & E for OTP/TSFP/BSFP is comprised of:
 - Individual monitoring;
 - Programme monitoring to assess the effectiveness and efficiency of the CMAM programme;
 - Monitoring of inputs such as nutrition therapeutic supplies, anthropometric equipment, data collection tools, IEC materials and staffing.

7.2.1 INDIVIDUAL MONITORING

- Key elements of a system to track and monitor the progress of individual cases are:
- Prevention and treatment data collected and recorded on all individual cases enrolled in the programme;
- Supervision and case review;
- Effective exchange of information on individual cases transferred between different programs components.

7.2.2 PROGRAMME MONITORING

- Programme monitoring involves regular collection of health/nutrition facility data and the performance indicators.
- **Performance indicators:** are indicators used to assess programme effectiveness and efficiency. They include cure rate, defaulter rate, non-respondent rate and death rate (Table 20).

TABLE 20 Definition of performance indicators

INDICATOR	DESCRIPTION	FORMULA	UNITS
Cure rate	Proportion of discharges from programme as cured	Total number cured / Total number of discharges x 100	%
Defaulter rate	Proportion of discharges from programme as defaulters	Total number of defaulters / Total number of discharges x 100	%
Non-respondent rate	Proportion of discharges from programme as non-respondents	Total number of non-respondents/ Total number of discharges x 100	%
Death rate	Proportion of discharges from programme as deaths	Total number of deaths/ Total number of discharges x 100	%

Note: Total discharges = Total (Cured +Defaulters + Death + Non respondents).

Minimum standards

Minimum standards (Table 21) were developed by the Sphere project for use in emergency settings, however they are also used in non-emergency settings. Comparison of the performance indicators with the Sphere standards will inform you if programme performance is acceptable (meeting Sphere standards) or not acceptable (not meeting Sphere standards).

TABLE 21 Indicators for monitoring supplementary and therapeutic feeding programmes

INDICATOR	ACCEPTABLE		ALARMING	
	TSFP	OTP /SC/ITP	TSFP	OTP /SC/ITP
Cure rate	> 75%	> 75%	< 50%	< 50%
Death rate	< 3%	< 10%	> 10%	> 15%
Defaulter rate	< 15%	< 15%	> 30%	> 25%
Coverage	Rural: > 50%; Urban: > 70%; Camp: > 90 %		< 40%	< 40%

7.2.3 MONITORING HEALTH AND NUTRITION EDUCATION PROGRAMME

- At the onset of the programme, a monitoring plan is developed by the implementers.
- The plan should be well understood by information collectors and be specific to the programme.
- Qualitative and quantitative data is collected by conducting a knowledge, attitude, and practices (KAP) study (see *section 7.5*).

7.3 Programme supervision

- Responsibility for supervision of the CMAM programme is established during the planning stages.
- Supervisors should perform regular supportive supervision visits.
- Depending on context, the nutrition programme staff conducts weekly or bi-weekly coaching and mentorship visits.
- Additionally, the facility staff should hold monthly meetings to discuss any programme issues and answer any questions that may arise such as:
 - Any issues in programme management including a review of the caseload number in comparison to the staffing levels, and any expected increases/decreases in the caseload due to seasonal changes or sudden population influx;
 - Issues in the community that may affect access and factors that may affect attendance;
 - Supplies, logistics and staff related issues;
 - A review of adverse outcome from the programme (deaths, defaulters, and non-respondents);
 - A review of transfers to ensure effective tracking;
 - Issues on reporting.
- Joint monthly supervision visits are conducted by the CHD together with partners' health and nutrition supervisors/managers.
- Joint quarterly supervision visits conducted by the MOH, SMOH, CHD together with partners' health and nutrition supervisors/managers.
- Supportive supervisory checklists (*Annexes 44-46*) cover specific job functions and are used to systematically, assess and address service performance.

A supervision visit entails the following:

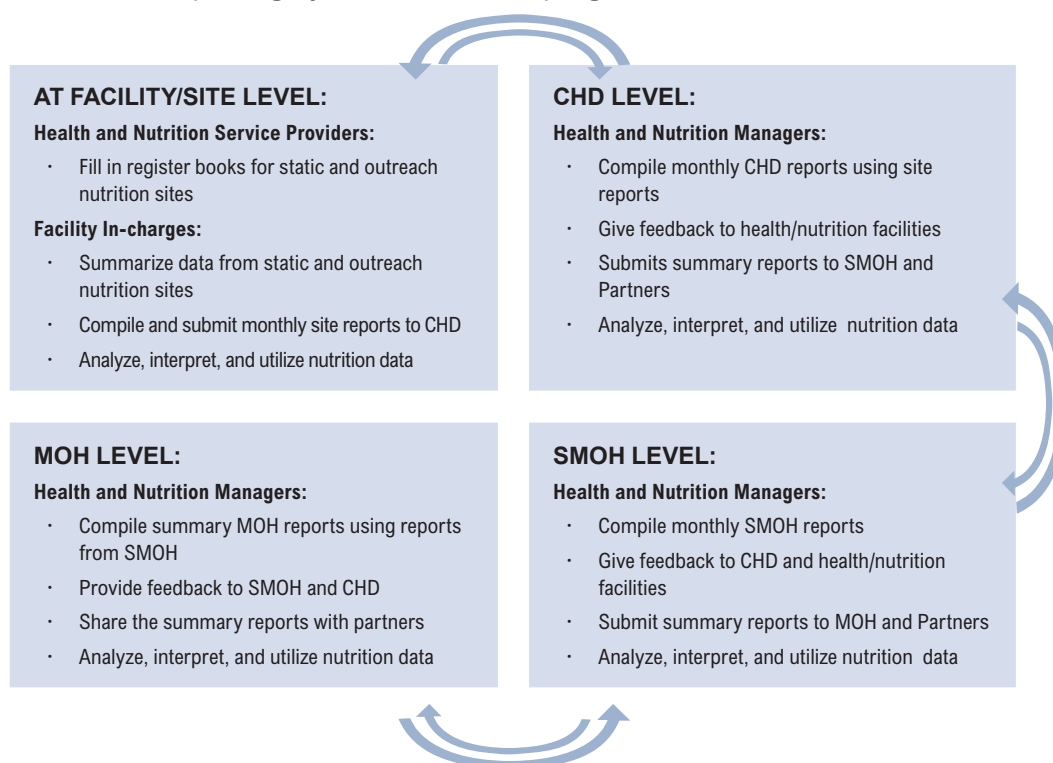
- Discussion with health and nutrition staff at the health/nutrition facility.
- Review of records including register books, stock cards, reports and if possible, ration cards to check whether:
 - Admissions and discharges are made according to protocols;
 - Routine medications and nutritional treatment are given correctly;
 - Any deterioration in condition is identified and acted upon;
 - Absentees and defaulters are traced/followed up;
 - Stock records of routine medications, nutrition supplies/equipment, and prevention items are kept correctly (stores are visited for observation);
 - Quantitative data on the outcome, including standard performance, is collected correctly.
- The Supervisors use the opportunity to provide support (both technical and non-technical) to the health and nutrition service providers based on the identified gaps/needs;
- Additional qualitative information can be obtained through holding discussions with HHPs/volunteers, mothers/caregivers of the acutely malnourished cases and other key community members;

- The findings are discussed in a feedback meeting with health and nutrition service providers so that improvements can be made;
- Where gaps are identified, training should be organized according to need (e.g. holding continuous professional development (CPDs) on job training, refresher training etc.).

7.4 Programme reporting

- Programme data collected from static and outreach nutrition sites in the community and health facility is used to compile site reports (*Annexes 42 and 43*).
- Figure 7 shows flow of reports from sites to MOH.

FIGURE 7 Reporting system for CMAM programme



7.5 Programme evaluation

- This involves assessing the impact of the CMAM programme through careful appraisals and studies conducted at pre-planned intervals e.g. annually, mid-term, and end of programme.
- The evaluation plan should set schedules, the methodology, resources and the type of indicators. An evaluation will address the following issues related to the programme:
 - Relevance/appropriateness;
 - Connectedness and coordination;
 - Coherence;
 - Effectiveness;
 - Efficiency;
 - Impact;
 - Coverage.
- Programme evaluation is performed using specific evaluation studies, and should be conducted at different periods of the programme's implementation e.g. baseline, midterm and end of the programme.
- Methods used in programme evaluation include:

Standardized Monitoring and Assessment of Relief and Transitions (SMART) survey

- To determine prevalence of malnutrition and mortality at a specific time and within a specific population.
- The SMART Methodology is based on the two most vital and basic public health indicators for the assessment of the magnitude and severity of a humanitarian crisis, i.e., the nutritional status of children under five, and mortality rate of the population.

KAP Survey

- A KAP survey is a focused evaluation that measures changes in human knowledge, attitudes and practices; KAP survey on CMAM will gather information about what respondents know about the programme, what they think about people with acute malnutrition, the health system's response to acute malnutrition, and what care the acutely malnourished should seek;
- These surveys are very helpful for identifying patterns that may facilitate or create barriers to the CMAM programme. This may include factors like knowledge gaps, cultural beliefs, or behavioral patterns;
- In addition, the data collected from KAP surveys enable program managers to set priorities for CMAM, to establish baseline levels, and to measure change from current interventions.

NOTE: SMART and KAP surveys are useful methods for evaluating impact. However, the results could be due to other interventions (e.g. WASH, FSL, malaria control etc.) apart from CMAM programme.

Coverage assessment

- Coverage assessment is very specific to evaluation of CMAM programme. The assessment identifies the proportion of cases with acute malnutrition that are enrolled in CMAM programme, out of the total number of acutely malnourished cases who need the intervention in a given area. This is also known as **treatment coverage**.

$$\text{E.g. Treatment coverage for SAM} = \frac{\text{Children with SAM receiving therapeutic care}}{\text{Total number of SAM children}}$$

- Programme coverage is one of the most useful and reliable indicators for measuring the performance of CMAM programmes. It provides a reliable measure of impact by measuring the proportion of needs met by an intervention;
- A “met need” is the product of coverage rate and cure rate. A programme with a high coverage but lower cure rates (e.g. 75% coverage x 70% cured = 53% met need) may be better at meeting the need than one with a high cure rate and low coverage (e.g. 80% cure rate x 25% coverage = 20% of need met);
- Coverage assessments can be made using a variety of techniques such as:
 - LQAS: Lot quality assurance sampling;
 - SLEAC: Simplified evaluation of access and coverage (National or State level);
 - SQUEAC: Semi-quantitative evaluation of access and coverage (county or programme level);
 - CSAS: Centric systematic area sampling.

NOTE: These techniques are beyond the scope of these guidelines, and require specialized training (for details on conducting coverage surveys, refer to coverage and Monitoring Network (CMN) *Guidelines*).

7.6 CMAM data collection tools

These include tools used for recording and reporting CMAM data at individual and programme level (*see Table 22*)

TABLE 22 Data collection tools for CMAM

TOOL	PURPOSE
COMMUNITY LEVEL	
Community screening referral slip	Used by HHPs/volunteers to refer cases identified with acute malnutrition in the community to the health facility for further assessment and treatment.
Home visit tool/checklist	Used during home visits for follow up of defaulters or general follow up of treatment cases. This should be attached to the beneficiary's treatment card.
Community nutrition screening daily tally sheet	An active screening record form used by HHPs/volunteers and other community level cadres.
Community nutrition screening monthly tally sheet	Used by HHPs/volunteers and other community level cadres for monthly reporting.
HEALTH/NUTRITION FACILITY LEVEL	
A: INDIVIDUAL DATA COLLECTION TOOLS	
Treatment card	A record of basic information on an individual case's progress during treatment in CMAM (clinical condition, health issues and other medications given). Kept at the health facility as a record of the beneficiary's progress.
Ration card	A record of key information about the beneficiary and basic information on their progress (anthropometric measurements, routine medications and ration received). Kept by the mother/caregiver and brought at each visit for updating as a record of the beneficiary's progress.
Referral slip for SC/ITP/OTP/TSFP	Used by health and nutrition staff at facility level to refer cases between programmes/sites.
CMAM register books	Record of detailed information on cases admitted in CMAM programme. Tracks follow-up information (anthropometry, routine treatment) Record of exit outcome. Different registers books are used for different nutrition programmes (OTP/TSFP/BSFP/SC/ITP) Kept at the health/nutrition facility. Data from registers is used for compiling monthly reports.
B: PROGRAMME DATA COLLECTION TOOLS	
Monthly report forms (OTP/ TSFP, BSFP and SC/ ITP/)	Record of cases enrolled in programme each month at different levels of health care (site, county, SMOH and MOH). Track programme performance through monitoring programme outcomes vis-à-vis standard cut-offs (SPHERE standards).
Weekly/bi-weekly, monthly and quarterly supervision checklists	Used by supervisors for weekly/biweekly, monthly and quarterly supportive supervision visits aimed at improving nutrition service delivery.
Nutrition supplies and equipment order forms	Used for placing orders /requisitions for supplies and equipment.
Stock cards	For tracking quantity and utilization of nutrition supplies.
Monthly nutrition stock report forms	Breakdown of stock movement including commodity type, opening stocks, receipts, distributed quantities, returns, losses, closing balances and reasons for loss.

Supplies management and stock control

8.0	Overview
8.1	CMAM basic supplies and equipment
8.2	Ordering for nutrition and equipment
8.3	Storage and stock control
8.4	Receiving supplies
8.5	Issuing supplies
8.6	Stock taking
8.7	Inventory of stock
8.8	Stock reporting
8.9	Quality assurance

8.0 OVERVIEW

To provide quality CMAM services, it is critical to have a reliable supply chain for delivering basic nutrition supplies and equipment. An efficient system for ordering and managing nutrition supplies and equipment prevents stock-outs and reduces time loss, thereby building confidence in service management. If appropriate, efforts should be made to utilize existing channels for ordering and management of other supplies, equipment, and consumables at different levels of health care system.

8.1 CMAM basic supplies and equipment

A detailed list of supplies and equipment required for CMAM is provided in *Annex 11*.

8.2 Ordering for nutrition supplies and equipment

The amount to order depends on the following:

- Caseloads or expected cases based on trends of acute malnutrition;
- Amount of stock normally used;
- Frequency of ordering;
- Existing storage capacity.

8.2.1 ESTIMATING/CALCULATING REQUIREMENTS

- Decide what supplies and equipment you need, and then calculate or estimate what quantities of each of these items is required. In order to do this:
 - Check the stock records to find out the stock balance and decide what items, and how much of each item, you need to order;

- Calculate stock needed based on caseloads (number of cases on programme) or expected cases depending on the seasonal trends of acute malnutrition (*see the example in Annex 47*);
- Add emergency stock (buffer stock) for unexpected situations. Buffer stock is defined as reserve supplies to safeguard against unforeseen shortages or demands. It is stock used over and above the actual stock needed to run the program, and is equivalent to 2 months stock or 10% of the stock required to run the programme.

8.2.2 PLACING AN ORDER

- Place your order using an order form.
- Put each item in its own row, with a full and clear description, including the size, quantity, etc.
- Place orders for complete packs or cartons. For example, if you need 3,000 sachets of RUTF, 1 carton contains 150 sachets, $3200/150 = 21.3$ cartons, order for 22 cartons.
- The ordering forms in Microsoft excel (*see Annex 48*) are used to automatically quantify the supply requirements.
- For rations needed for each OTP/TSFP/BSFP session, orders/requisitions are made to the storekeeper (or staff assigned this responsibility).
- The day before the distributions, the health and nutrition staff in-charge should ensure that enough amounts are available to cover the needs of the OTP/TSFP/BSFP session.

8.3 Storage and stock control

8.3.1 ORGANIZING THE STORE

- Routine medicines, non-bulky nutrition supplies such as RUTF, RUSF, anthropometric equipment and other materials are kept in the health facility general stores, from which they are issued when needed.
- Proper storage conditions are important to protect stock from deterioration and damage. The store should be:
 - Kept in good condition. The structure including the roof, ceiling, walls and the floor should be maintained and well lit.
 - Secure: to ensure security, keep the store locked at all times when not in use;
 - Kept clean and tidy;
 - Free of pests and equipped with rodent traps;
 - Dry and not too hot or cold. (Room temperature of 25-30°C)
 - Well ventilated with enough space to put all nutrition supplies on shelves or pallets, at least 10 cm from the wall;
 - Not exposed to direct sunlight
- Rotate stock according to the expiry date using the SLFO (shortest life first out) rule. Use FIFO (first in first out) rule for items without an expiry date and mark these with the date of receipt.
- Put a red star, or similar mark, on the labels of all items that have an expiry date within the current year.
- Remove items that are expired, damaged, or no longer in use from the shelves. Store them separately pending disposal.
- Report expired commodities to the CHD for disposal following the MOH methods for non-hazardous medical waste disposal such as burning or incineration.

8.3.2 STOCK CONTROL AND STORE RECORDS

- Stock control is about managing supplies in a health/nutrition facility, or a warehouse. Stock control includes:
 - Keeping accurate and reliable records of stock received and issued;
 - Stock taking (checking stocks on a regular basis);
 - Carrying out an inventory of stock at least once a year.
- A stock control system uses tools such as **stock cards** and **stock control ledgers**.
- A **stock card** is a useful tool for preventing shortages and over-stocking. It tracks quantities of supplies received, issued and in stock at any time
- A **stock control ledger** summarizes data from stock cards.

8.4 Receiving supplies

- Make sure at least two people receive and check new deliveries at the facility or warehouse before you put them away in the store. The following simple checks are made:
 - Check the delivery note, packing list and contents against a copy of the order;
 - Check the contents and number of boxes against the packing list;
 - Check the outer and inner packaging for any signs of damage, for example, spots, breakages, leaks, missing labels, etc.;
 - Check if labels are legible and include complete information, for example, the approved name, storage instructions, manufacturer's details, and expiry date;
 - For equipment, check that all spare parts, accessories, instruction manuals, and warranty documents are included;
 - Check the shelf life and expiry date. Do not accept items if the expiry date has passed. Only accept items nearing the end of their shelf life if you are sure you can use them before they expire.
 - Note any inconsistencies and report them to the staff in charge of the facility, who then should inform the CHD and SMOH.
 - The summary of inconsistency should be immediately notified to the designated agency by SMOH and nutrition department in the MOH.
 - If the correct amount and condition of goods matches the invoice, sign the invoice. Also ensure that the driver signs it, and keep a copy for your records.
 - File delivery documents with the order forms.
 - Place the supplies in your storage rooms as soon as possible.
 - An integrated storage system is recommended (i.e. use the existing storage system for drugs and other supplies/equipment)
 - When you unpack supplies, enter the details on the stock card and enter new items in the inventory.

8.5 Issuing supplies

- Using an issue book or issue voucher, record all supplies being issued out.
- Give a copy of the issue voucher to the recipients for their records.

8.6 Stock taking

- A stock take involves physically counting what is in stock and then comparing the counted figures with the balance figures on the stock cards, checking expiry dates, and noting the condition of stock.

- If there is a difference between the counted figures and the balance figures on the stock cards, you need to find out why. For example, stock may have been received or issued without being recorded, or may have been stolen.
- Stock taking is carried out monthly at the warehouse (A warehouse should ideally have sufficient stocks for six months. This allows a four months emergency stock to be kept in case of interruptions to the supply or an increase in needs)
- At the health facility, you should carry out stock taking before ordering for more supplies. This is usually every two months for nutrition therapeutic supplies such as RUTF; and every month for supplementary foods such as RUSF.
- If it is not possible to take stock before each order because you order stocks very frequently, carry out a stock take at least three times a year
- Depending on storage space, a health facility should ideally have sufficient stocks for four months. This allows two months of emergency stock

8.7 Inventory of stock

- An **inventory** is a list of non-expendable supplies and equipment that are kept at the health facility or warehouse
- The staff in charge of the health facility or warehouse should keep a master copy of all items, and update this list each time an item is received and issued.
- An inventory should be carried out at regular intervals (at least once a year) to check the condition, location of supplies and equipment in stock, those in use, and to identify purchasing requirements.
- It is important to have a set time or times each year for inventory checking.

8.8 Stock reporting

Stock utilization is reported monthly using the nutrition stock report format (see *Annex 49*)

8.9 Quality assurance

- Quality assurance shall be maintained at all levels across the supply chain, as per MOH requirements.

ANNEX 1

CHECKLIST FOR COMMUNITY ASSESSMENT

STEP	METHOD	AREA OF INVESTIGATION/ QUESTIONS TO BE ANSWERED	TIME REQUIRED
STEP 1: Defining the implementation modalities of the CMAM programme	Briefing to confirm CMAM objectives	<ul style="list-style-type: none"> Is this a short-term intervention to address a nutrition emergency or will it be integrated in the PHC services? Will the programme be implemented directly by the MOH or by partners? If partners are to be involved, what will their role be? How will the program be integrated into the existing primary health care system? How will community case-finding be conducted? 	1-3 hours
STEP 2: District level review to understand the local context	District-based discussions with NGO/MOH/ civil society/ key informants at the district level	<ul style="list-style-type: none"> Local health-seeking practices Community coherence/differences Broad patterns of under-nutrition (e.g., seasonal, spatial) Available networks of community health and nutrition resource persons/volunteers Potential partners (e.g., civil society, political leadership, private health sector) 	1-2 days but might require additional time to contact and make arrangements with resource persons
STEP 3: Community level review to complete information gathered at district level	Community level discussions to fill gaps that could not be answered at the district level	<ul style="list-style-type: none"> Further information on above topics is gathered in community meetings with separate groups of: <ul style="list-style-type: none"> Community leaders Community resources persons/volunteers Special attention is given to finding information on issues related to excluded groups and cultural barriers, (e.g., cases where women are not allowed to travel without a male relative) 	Varies greatly, depending on size and homogeneity of project area; plan for at least 1 day in the catchment of each OTP/TSFP/BSFP site but also factor in time required to plan and make appointments for meetings.
STEP 4: Beneficiary level discussions to determine perspectives, knowledge, and vocabulary	Interviews with mothers and caregivers to fill gaps	<p>Visual aids depicting SAM are used in individual or group interviews with community mothers/caregivers to gather more detailed information on:</p> <ul style="list-style-type: none"> Disease names and presumed causes Clues as to who might see (and therefore refer) these children Attitudes towards existing community resource persons/ networks 	2-4 days depending on cultural homogeneity and ease of access; it is possible to have discussions with mothers/caregivers at local MCH clinic, but better information often is obtained when discussion takes place in the community, away from the clinic setting

ANNEX 2

DEVELOPING SIMPLE AND STANDARD CMAM SENSITIZATION MESSAGES

The purpose of the key messages is to clarify how CMAM is offered and to whom, not to change underlying behaviors or practices.

Standard CMAM sensitization messages should:

- Explain that malnutrition (use local terms) can result from not eating a variety of foods in the right amounts (balanced diet), even if the child has plenty to eat. Mention that it can also occur during or following any illness in children – even a minor illness.
- Describe the target beneficiaries (e.g. children 6-59m, PLW, people infected with HIV/TB etc.) using the local disease terms for wasting and swelling collected during assessment.
- Explain the benefits of CMAM, noting that cases with severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) without medical complications can be treated in OTP and TSFP, respectively. State that children will be fed RUTF or RUSF at home and visit the OTP/TSFP facility once a week for OTP, or twice for TSFP. This means that mothers/caregivers no longer need to leave the family; and that only few patients with SAM with medical complications will need to be treated in inpatient care. Also, explain that BSFP intervention targets children under-five and pregnant and lactating women with infants less than 6 months of age without acute malnutrition; that services are available only in selected areas with very high levels of acute malnutrition and distribution rounds are held once a month.
- State the time and date of distribution sessions and the location of closest OTP/TSFP/BSFP sites.
- Explain the referral process, noting that HHPs/Volunteers will assess and refer children with red or yellow MUAC and swelling in both feet (bilateral pitting oedema).
- Explain (if appropriate) that families can also self-refer cases with SAM by taking them to the nearest health facility with CMAM services or a designated site in the community.
- Explain that a patient can be re-assessed (re-measured) at

different intervals to monitor his/her nutritional status and be admitted to inpatient care if s/he has deteriorated

- Introduce therapeutic/supplementary foods not as a food but as medicine, or as a “medical food”.
- Reflect the findings of the assessment and address concerns directly.

Channels of disseminating CMAM messages

- HHPs/volunteers
- MtMSG/MSG
- Community theater group (CTG)
- Megaphones
- Electronic media (radios, SMS, TV)
- Print media - flyers, leaflets, posters, among others

How to make the best use of flyers, leaflets, or posters

- Use flyers or leaflets in information meetings with community leaders. Ask them to make announcements through their networks. Give them sufficient copies so that the flyer can be read widely in the community. This should be done before active case finding is initiated.
- Take flyers to meetings with civil society partners (e.g., community-based organizations (CBOs), churches, mosques) and ask for wider dissemination.
- Create a separate flyer for minority language groups in the area
- Tailor the flyer to address special concerns as they arise (e.g., confusion over whether referral constitutes admission).
- Where appropriate, pair flyers with photographs of patients with oedema and severe wasting to help people identify the severely malnourished
- Give copies to literate community health workers/volunteers so they can share the information accurately.

ANNEX 2

They can use the flyers to make announcements at formal gatherings (e.g., funerals, weddings, market place, water points, community committee meetings or gatherings).

Flyer Message Example (Can be modified to suit the local context):

Help is now Available for Families with very Thin or Swollen Children and Adults

THE TREATMENT

The treatment is available at[Name of health facility]... for children, adolescents, adults and the older people (≥ 60 years) who are severely malnourished. Individuals who are very thin or whose feet have begun to swell but have no medical complications no longer need to spend a long time in the hospital. A “medical food” is being offered for these patients. Families can use it to rehabilitate their patients at home. This is a free treatment.

HOW TO KNOW WHETHER THE PERSON NEEDS THIS TREATMENT

To find out whether a person is eligible for this treatment, his/her arm is measured and the feet are checked.

The arm measurement is taken with a tape similar to the cloth tape tailors use. It is a fast, painless check that does not involve taking blood or injecting the person. Some people are being trained in this community on how to use the tape, so that in some cases a person the family is familiar with may take the measurement. If the arm is too thin or the feet are swollen, the person will be referred to a health facility or site closest to their home, where the measure is repeated and if correct he/she is provided with a supply of the medicinal food called RUTF [use local term]

If you know a person who is very thin or whose feet have started to swell, tell his/her parents or caregivers about this treatment. They can ask in their community for the name of the home health promoter/volunteer trained to take the arm measurement, or they can go directly to the nearest health facility.

The person/and caregiver can visit the health facility on any working day for more information and treatment

ANNEX 3

ANTHROPOMETRIC MEASUREMENTS

Anthropometric refers to physical measurement of body parts in comparison to reference standards. It includes (but is not limited to) the following measurements: **mid upper arm circumference (MUAC)**, **body weight, length** (for children less than 2 years or less than 87.0cm) and height (for children older than 2 years or ≥ 87.0 cm, adolescents, and adults).

Building blocks of anthropometry (4 variables) include: age, sex, weight, and height. When taking anthropometry, first assess age and examine for bilateral pitting oedema.

A: Assessing bilateral pitting oedema

Bilateral pitting oedema, (formerly known as kwashi-orkor), is swelling from excess fluid in the tissues. It can be verified by applying thumb pressure on top of both feet for three seconds, which leaves a pit (indentation) in the foot after the thumb is lifted. The pit will remain in both feet for several seconds. Bilateral pitting oedema usually starts in the feet and ankles, in severe cases it progresses to the upper limbs and face.

To check for bilateral pitting oedema:

- Hold both feet so that they rest in your hands with your thumb on top of the feet;
- Press your thumbs gently for about 3 seconds. This can be estimated by counting one thousand one, one thousand two, one thousand three (1001, 1002, 1003);
- The child has oedema if a pit (dent) remains on both feet when you lift your thumb;
- If the swelling is only in one foot, it is not related to malnutrition.

GRADES OF BILATERAL PITTING OEDEMA

There are three grades of bilateral pitting oedema. When there is no bilateral pitting oedema, it is “0” or “absent.” Grades of bilateral pitting oedema are classified by plus signs as follows:

OBSERVATION	CLASSIFICATION
Bilateral oedema in both feet (below the ankles)	+ / (Grade 1) mild
Bilateral oedema in both feet and legs, (below the knees) hands or lower arms	++ / (Grade 2) moderate
Bilateral oedema observed on both feet, legs, arms, face	+++ / (Grade 3) severe

Note: It is important to interpret oedema with caution, especially in adults, as it may be a sign of underlying medical condition (e.g. nephrotic syndrome, severe anaemia, high blood pressure, other renal or heart conditions) or physiological changes such as in pregnancy. A clinician should take detailed history, physical examination and where possible biochemical tests.

B: Measuring mid-upper arm circumference or MUAC

MUAC is used to measure wasting and should be performed for all the vulnerable groups of people at key contact points. The measurement is well correlated with muscle mass and therefore with the nutritional reserves of the body. It has a significant correlation with the risk of death.

Since there are no standard measurements for infants below six months of age, it is essential to use the age limit of 6 months for arm circumference. Be sure to use age appropriate MUAC tapes when measuring MUAC.

How to measure MUAC:

- Rule out bilateral pitting oedema
- MUAC is always taken on the left upper arm (or the less active arm).
- Locate the tip of the shoulder (acromion) and elbow (olecranon) on the left (or less active), arm. To locate the correct point for measurement, the patient's elbow is flexed at 90 degree (see picture below).
- Find the midpoint of the upper arm and mark it with a pen. It is recommended to use a string instead of the MUAC tape to find the midpoint
- The child's arm should then be relaxed, falling alongside his/her body.
- Wrap the MUAC tape around the child's arm, feed the end of the tape down through the first opening and up through

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the third opening, slide the end through the first opening and then through the second opening such that all of it is in contact with the child's skin. It should be neither too tight nor too loose.

- For the simple three-color coded tape (red, yellow, green), read the colour that shows through the window at the point where the arrows point inward. For the numbered tapes, read the actual measurement and record it in centimetre. MUAC can be recorded with a precision of 0.1 centimetre (cm).

C: Measuring weight

To increase accuracy and precision, two people are always needed to measure weight. Weight can be measured using a Salter-type hanging spring scale (as is commonly found in the field) or an electronic scale such as the United Nations Children's Fund (UNICEF) UNISCALE, which is more precise and allows a child to be measured in the mother/caregiver's arms.

HANGING SPRING (SALTER) SCALE

A 25 kilogram (kg) hanging spring scale, graduated by 0.1 kg, is most commonly used. In the field setting, the scale is hooked to a tree, a tripod or a stick held by two people. In the health facility, it is attached to the ceiling or a stand.

Weighing pants (or a weighing hammock for smaller infants) are attached to the scale. Culturally adapted

solutions, such as a mother's wrap, basin or grass basket, might be preferable to use when weighing the child. The weighing pants or hammock is suspended from the lower hook of the scale, and the scale is readjusted to zero. The child's clothes are removed and the child is placed in the weighing pants/hammock. The scale should be read at eye level.

HOW TO USE THE SALTER SCALE:

- Before weighing the child, ask the mother/caregiver take off the child's clothes.
- Zero the weighing scales (i.e. make sure the arrow is on 0).
- Place the child in the weighing pants/hammock, making sure the child is touching nothing.
- Read the child's weight. The arrow must be steady and the weight/scale should be read at eye level.
- Record the weight in kg and to the nearest 100 grams (g) (e.g., 6.4 kg).

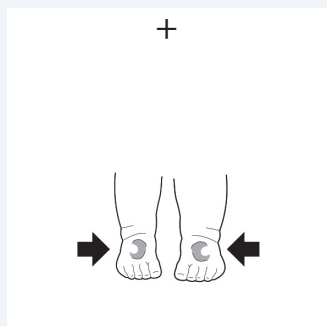
CONSIDERATIONS:

- Make sure the child is safe in the weighing pants or hammock, with one arm in front and one arm behind the straps to help maintain balance.
- In cold climates or in certain cultures, it might be impossible or impractical to undress a child completely. The average weight of the clothes should be estimated and deducted from the measure. It is helpful to retain similar

Pictures of Bilateral Pitting Oedema

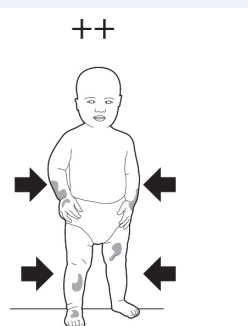
GRADE +

In this child, there is bilateral pitting oedema in both feet. This is grade + oedema (mild), however the child might have grade ++ or +++ , so legs and face will also need to be checked.



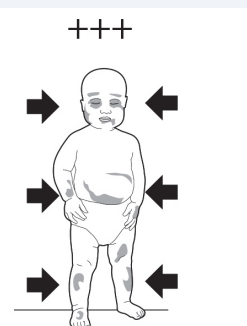
GRADE ++

In this child, both feet plus the lower legs, hands and lower arms are swollen. This is grade ++ bilateral pitting oedema (moderate)



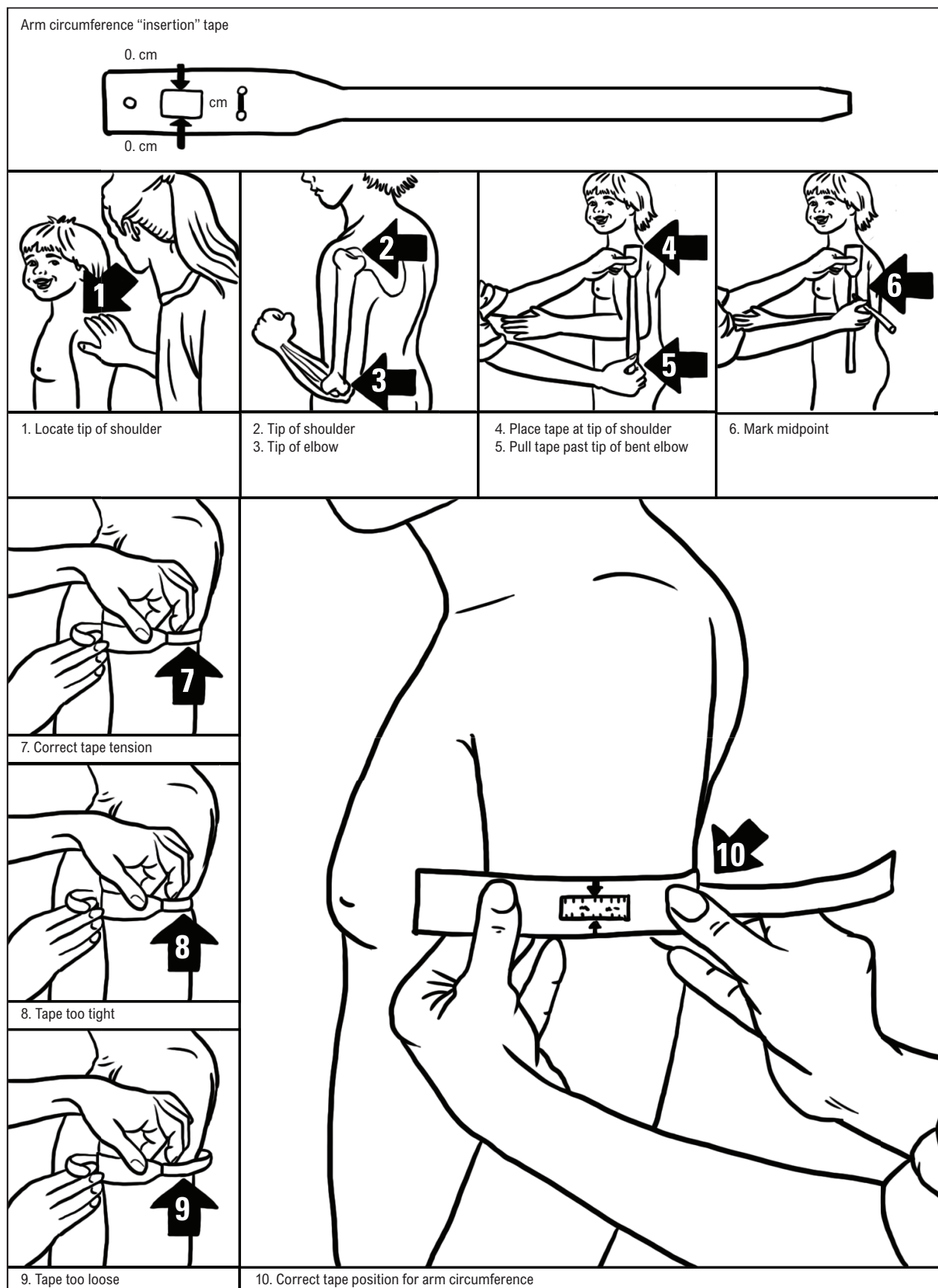
GRADE +++

This child has +++ bilateral pitting oedema (severe). It is generalised, including both feet, legs, arms, hands and face.



Source: WHO (2011). Training Course on the Inpatient Management of Severe Acute Malnutrition

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Source: *How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children*, United Nations, 1986.

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clothing for girls and boys during weighing to help to standardize weight deductions.

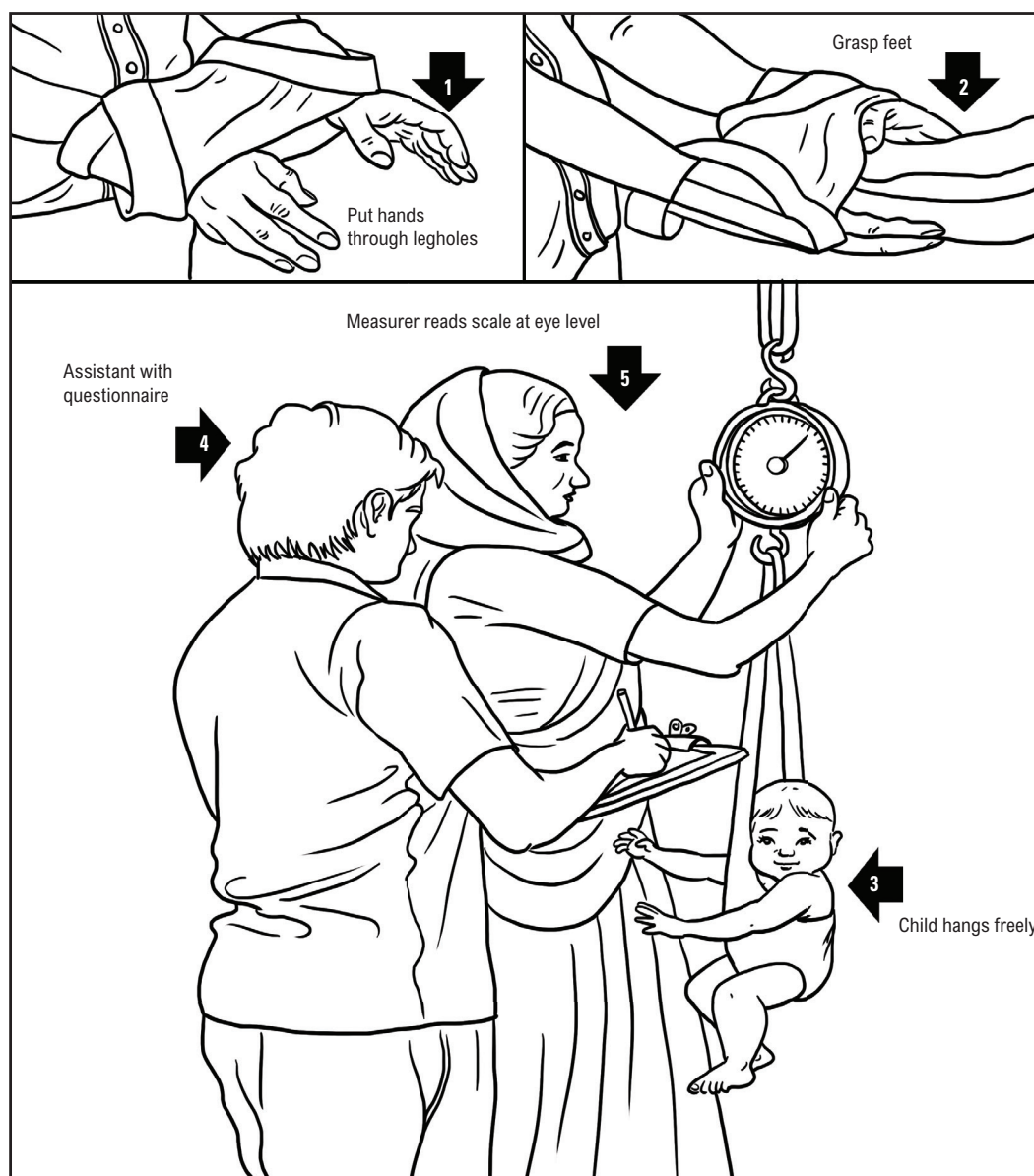
- When the child is steady and settled, the weight is recorded in kg to the nearest 100g. If the child is moving and the pointer does not stabilise, the weight should be estimated by recording the value at the midpoint of the range of oscillations. The person measuring reads the value on the scale aloud, and the assistant repeats it for verification and then records it on the treatment card. The child is then dressed.
- The scale should be checked daily against a known

standard weight. To do this, set the scale to zero and weigh objects of known weight (e.g., 5.0 kg, 10.0 kg, 15.0 kg). If the measure does not match the weight to within 10 grams, the springs must be changed or the scale should be replaced.

WEIGHING AN INFANT USING AN ELECTRONIC SCALE FOR “TARED WEIGHING”

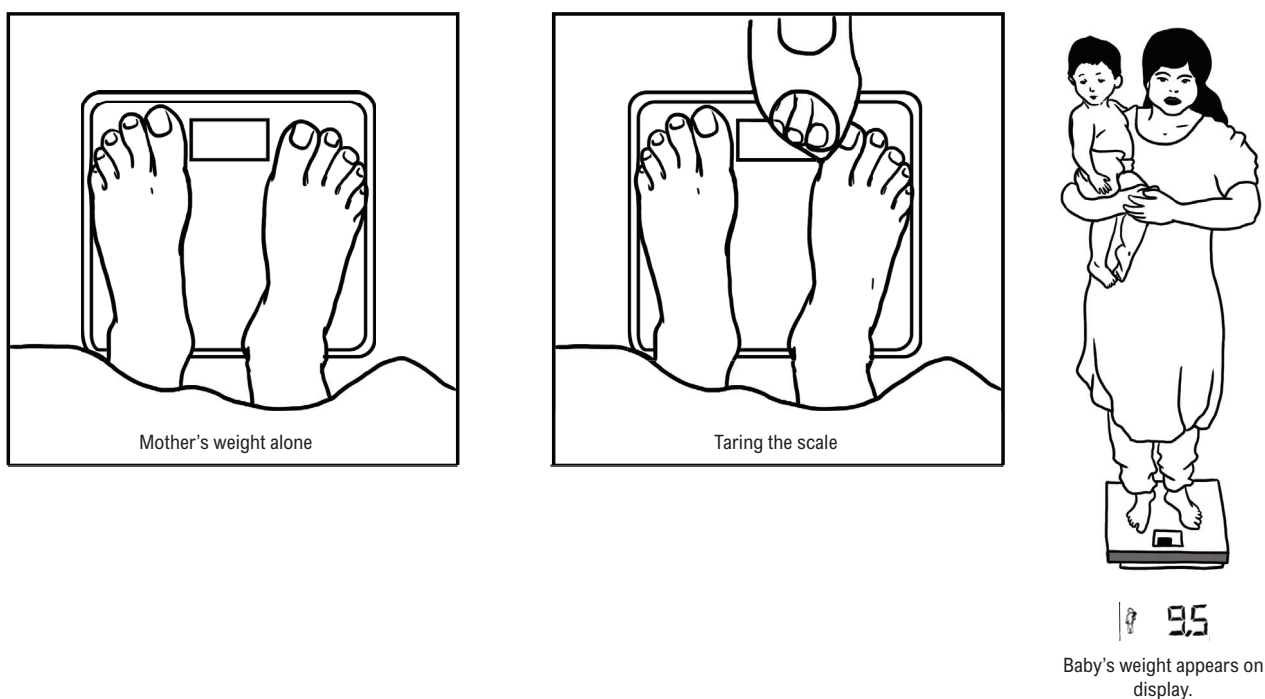
“Tared weighing” means that the scale can be re-set to zero (“tared”) with the person just weighed still on it.

Explain the tared weighing procedure to the mother,



WEIGHING AN INFANT USING A HANGING SPRING (SALTER) SCALE:

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stressing that the mother must stay on the scale until her child has been weighed in her arms.

Be sure that the scale is placed on a flat, hard, even surface. For a scale that is solar powered, ensure there is enough light to operate the scale. Scales that use batteries are sensitive to direct sunlight and humidity and should be protected accordingly.

- To turn on a solar powered scale, cover the solar panel for a second. When the number 0.0 appears the scale is ready. To turn on a scale powered by batteries, press the start button once.
- Check to see that the mother has removed her shoes. You or someone else should hold the naked baby wrapped in a blanket.
- Ask the mother to stand in the middle of the scale, feet slightly apart (on the footprints if marked), and remain still. The mother's clothing must not cover the display or solar panel.
- Remind the mother to stay on the scale even after her weight appears, until the baby has been weighed in her arms.
- With the mother still on the scale and her weight displayed, tare the scale. This can be done by covering the solar panel for a second (for solar powered scales) or by pressing the

2 in one button for scales that use batteries. The scale is tared when it displays a figure of a mother and baby and the number 0.0.

- Gently hand the naked baby to the mother and ask her to remain still.
- The baby's weight will appear on the display. Record the weight. Be careful to read the numbers in the correct order.

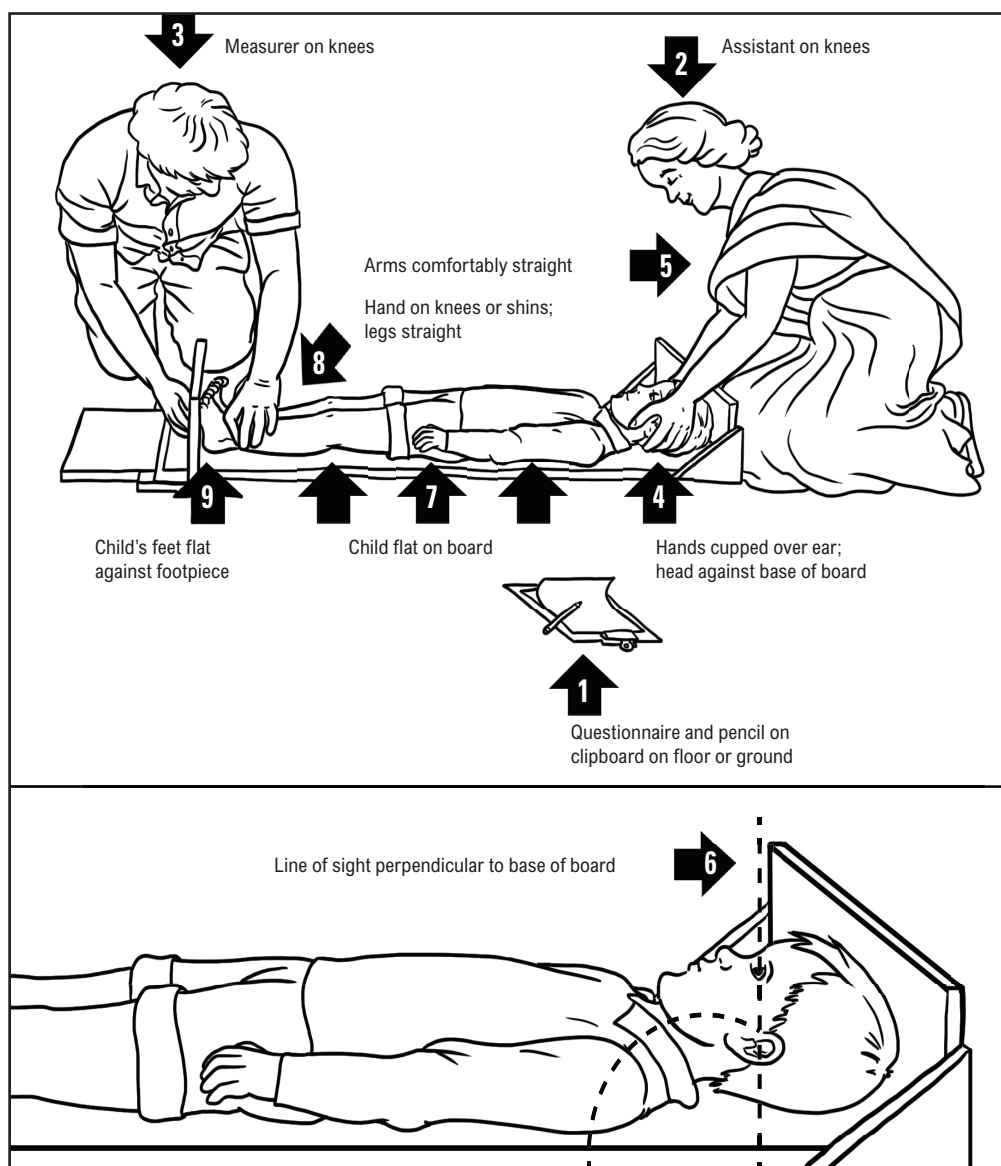
If the child is 2 years or older, you weigh the child alone if the child can stand still.

D. Measuring length/height

To increase accuracy and precision, two people are always needed to measure length and height.

Children aged 2 years or older are measured standing up, while those under 2 are measured lying down. If the age is difficult to assess, children being at least 87 cm tall (WHO standards) are measured standing, and those less than 87 cm are measured lying down. If children aged 2 or older or at least 87 cm tall are measured lying down, 0.7 cm is subtracted from the measurement. If children aged less than 2 years or shorter than 87 cm are measured standing up, add 0.7 cm to the measurement and convert it to length.

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Source: *How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children*, UN, 1986.

MEASURING LENGTH

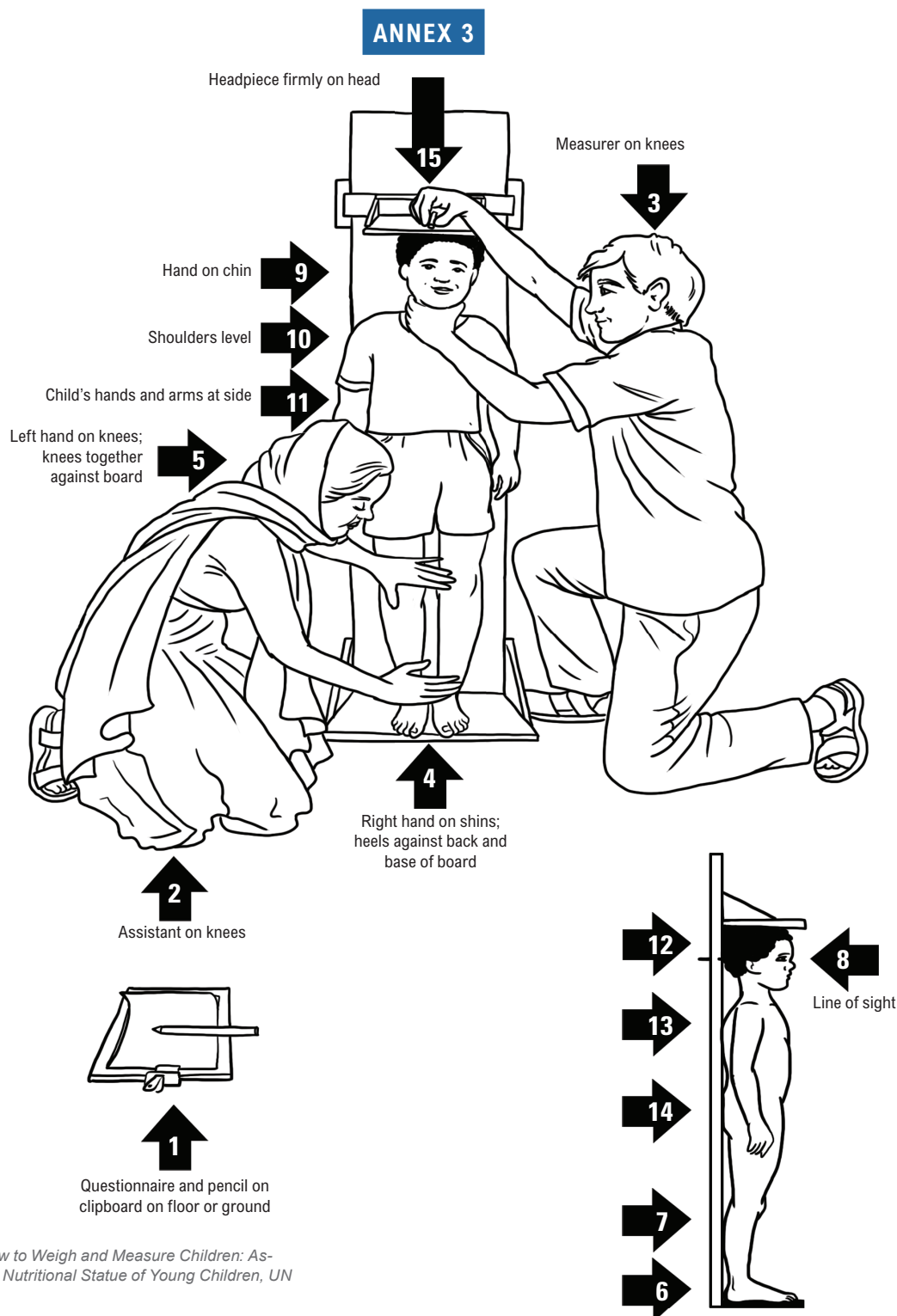
FOR CHILDREN UNDER 2 YEARS OR UNDER 87 cm TALL, MEASURE LENGTH

When measuring length, the height board is placed on the ground or a firm flat surface such as a table. The child's shoes are removed. The child is gently placed on his/her back on the middle of the board, facing straight up with shoulder blades, buttocks, and heels touching the surface of the height board. Knees should be fully straight, arms stretched on the child's sides, and feet at right angles. The assistant holds the sides of the child's head and positions it on the board. While holding down the child's ankles or

knees, the measurer moves the sliding board up against the bottom of the child's feet and takes the measurement to the nearest 0.1 cm. The measurer announces the measurement, and the assistant repeats it for verification, and then records it on the anthropometric form or health card.

FOR CHILDREN 2 YEARS OR OLDER OR WITH A HEIGHT OF 87 cm OR GREATER, MEASURE HEIGHT

When measuring height the child's shoes are removed. The height board is placed upright on the ground, sup-



Source: *How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children*, UN 1986.

MEASURING HEIGHT

ported vertically by a firm surface e.g. a wall. The child is placed on the height board, standing upright in the middle of the board with arms at his/her sides. The assistant firmly presses the child's ankles and knees against the board while the measurer holds the child's head straight. The child's head, shoulders, buttocks and heels

should be touching the board, and his/her feet should be close together. The measurer positions the sliding board and takes the measurement to the nearest 0.1 cm. The measurer announces the measurement, and the assistant repeats it for verification and then records it on the anthropometric form or health card.

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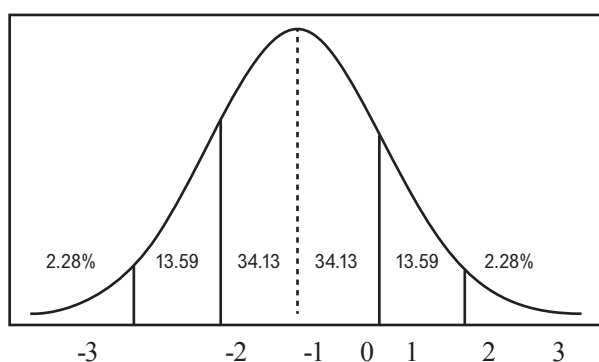
EXPLANATION OF Z-SCORES (SD-SCORES)**What does a z-score tell us?**

The reference lines on the growth charts are called z-score lines which are based on z-scores, also known as standard deviation (SD) scores. z-scores are used to describe how far a measurement is from the median (or average). For example a weight-for-height z-score of - 2.33 means that the child's weight is 2.33 SDs below the expected median weight of children of the same height. The child has a lower weight for his/her height compared to the standard and s/he is classified as "wasted". A positive z-score indicates that the child's weight is to the right of the median, i.e. the child is heavier compared to the standard.

The z-scores are calculated differently for measurements that are distributed normally and non-normally in the reference population.

Normally distributed measurements

The concept of a normal distribution is helpful for understanding what a z-score is. In a normal distribution, most values are grouped around the middle as shown below.

Normal bell-shaped curve cut into z-score

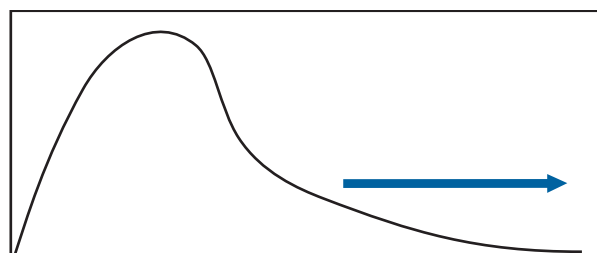
The distribution of heights for all boys or girls of a given age forms a bell-shaped curve, or a normal (or almost normal) distribution. Each segment on the horizontal axis represents one standard deviation or z-score, and the z-scores -1 and 1 are at equal distances in opposite directions from the median. The distance from the median to 1 is half of the distance to 2.

The of an observed point in this distribution is calculated as follows:

$$\text{z-score} = \frac{(\text{observed value}) - (\text{median reference value})}{\text{z-score of the reference population}}$$

Non-normally distributed measurements

Unlike the distribution of height, the distribution of weight has a shape when graphed that looks like a "deformed" bell whose right side is longer than the left and is described as right-skewed (not normal):



It is more difficult to calculate z-scores for weight-based indicators. Unlike in a normal distribution, distances between adjacent z-scores are not constant.

Calculating the z-score of an observed point involves a series of mathematical calculations that take into account the non-normal distribution of measurements in the reference population. The following formula is used:

$$\text{z-score} = \frac{(\text{observed value} \div M)^L - 1}{L \times S}$$

In this formula, M, L and S are values for the reference population. M is the reference median value, which estimates the population mean. L is the power needed to transform the data in order to remove skewness (i.e. to normalize the data). S is the coefficient of variation (or equivalent).

This formula (sometimes called the LMS formula) is used to calculate z-scores for weight-for-age, weight-for-length/height, and BMI-for-age.

The simplified field tables should be used to select children for interventions if they are below specified weight-for-height cut-offs based on the WHO standards (see: WHL/H Look up tables).

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How do z-scores relate to percent-of-median?

In the past, the percent-of-median was derived from the NCHS reference and described a ratio, then expressed as percentage. For example, a child's weight compared to the reference average (median) weight of a child of the same height.

The percent-of-median classification system had the following main drawbacks:

- The indicators are age dependent, i.e. 60% weight-for-age suggests severe malnutrition in infants but only moderate malnutrition in school children.
- There are different cut-off levels that indicate severity depending on the indicator. While 60% weight-for-age suggests severe malnutrition, 60% weight-for-height is incompatible with life.

The WHO child growth standards do not present the median figures with percentages. WHO recommends using the z-score classification system figures, which are comparable among different indicators across ages and heights.

BMI-FOR-AGE

The release of the WHO 2006 child growth standards (WHO Standards) prompted the development of the WHO 2007 growth reference for school-aged children and adolescents 5-19 years (WHO Reference).

The new reference indicator for wasting in school-aged children and adolescents 5-19 years is BMI-for-age (WHO Reference) and replaces the WHO previously recommended weight-for-height (WFH; National Centre for Health Statistics [NCHS] Reference) as indicator for wasting for children over 5 years. (The BMI-for-age [NCHS Reference] tables started at 9 years only)^{1,2}.

The BMI-for-age indicator for severe wasting is expressed in a z-score below 3 standard deviations (SD) of the median, and for moderate wasting below 2 SD of the median (WHO Reference).

BODY MASS INDEX (BMI)

BMI or "Quetelet's index" is a weight-to-height ratio that is considered a good approximation of the body's fat and protein stores. Body stores are of interest because they reflect the body's nutritional needs when coping with the physiological stress from reduced food intake and increased func-

tionality demands due to activity, pregnancy and diseases. Adults who are nutritionally healthy are expected to have body stores, or BMI, within a certain range.

The formula for BMI is the weight (in kg) divided by the height (in meters [m]) squared:

$$\text{BMI} = \text{weight} / (\text{height})^2$$

Example: A man who weighs 55.5 kg with a height of 162.5 cm would have a BMI of $(55.5 / (1.625 \times 1.625)) = 20.9 \text{ kg/m}^2$.

When an adult is too ill to stand or has a spinal deformity, the half-arm span should be measured to estimate the height. When the arm is held out horizontally to the side, this distance is measured from the middle of the sternal notch to the tip of the middle finger. Both sides should be measured. If there is a discrepancy, the measurements should be repeated and the longest one taken. The BMI is then computed from the calculated height and measured weight. The height (in m) can then be calculated as follows:

$$\text{Height} = [0.73 \times (2 \times \text{half arm span})] + 0.43$$

The WHO classification of malnutrition in adults by BMI is as follows³:

NUTRITIONAL STATUS	BMI (KG/M2)
Obese	≥30
Over weight	≥25-29.9
Normal	≥ 18.5-24.9
Mild under-nutrition	17.0 – 18.4
Moderate under-nutrition	16.0 – 16.9
Severe under-nutrition	< 16.0

While these categories are suggested, there is difficulty in using them to compare across populations. This is due to 1) a lack of understanding of the functional significance of these categories, and 2) the influence of body shape when interpreting BMI⁴.

ANNEX 4

WFH/L LOOKUP TABLES WEIGHT FOR LENGTH LOOK UP TABLES (0 – 23 MONTHS)

BOYS (WEIGHT)				GIRLS (WEIGHT)		
1.9	2	2.2	45	2.2	2.1	1.9
1.9	2.1	2.3	45.5	2.3	2.1	2
2	2.2	2.4	46	2.4	2.2	2
2.1	2.3	2.5	46.5	2.5	2.3	2.1
2.1	2.3	2.5	47	2.5	2.4	2.2
2.2	2.4	2.6	47.5	2.6	2.4	2.2
2.3	2.5	2.7	48	2.7	2.5	2.3
2.3	2.6	2.8	48.5	2.8	2.6	2.4
2.4	2.6	2.9	49	2.9	2.6	2.4
2.5	2.7	3	49.5	3	2.7	2.5
2.6	2.8	3	50	3	2.8	2.6
2.7	2.9	3.1	50.5	3.1	2.9	2.7
2.7	3	3.2	51	3.2	3	2.8
2.8	3.1	3.3	51.5	3.3	3.1	2.8
2.9	3.2	3.5	52	3.5	3.2	2.9
3	3.3	3.6	52.5	3.6	3.3	3
3.1	3.4	3.7	53	3.7	3.4	3.1
3.2	3.5	3.8	53.5	3.8	3.5	3.2
3.3	3.6	3.9	54	3.9	3.6	3.3
3.4	3.7	4	54.5	4	3.7	3.4
3.6	3.8	4.2	55	4.2	3.8	3.5
3.7	4	4.3	55.5	4.3	3.9	3.6
3.8	4.1	4.4	56	4.4	4	3.7
3.9	4.2	4.6	56.5	4.6	4.1	3.8
4	4.3	4.7	57	4.7	4.3	3.9
4.1	4.5	4.9	57.5	4.9	4.4	4
4.3	4.6	5	58	5	4.5	4.1
4.4	4.7	5.1	58.5	5.1	4.6	4.2
4.5	4.8	5.3	59	5.3	4.7	4.3
4.6	5	5.4	59.5	5.4	4.8	4.4
4.7	5.1	5.5	60	5.5	4.9	4.5
4.8	5.2	5.6	60.5	5.6	5	4.6
4.9	5.3	5.8	61	5.8	5.1	4.7
5	5.4	5.9	61.5	5.9	5.2	4.8
5.1	5.6	6	62	6	5.3	4.9
5.2	5.7	6.1	62.5	6.1	5.4	5
5.3	5.8	6.2	63	6.2	5.5	5.1
5.4	5.9	6.4	63.5	6.4	5.6	5.2
5.5	6	6.5	64	6.5	5.7	5.3
5.6	6.1	6.6	64.5	6.6	5.8	5.4
5.7	6.2	6.7	65	6.7	5.9	5.5
5.8	6.3	6.8	65.5	6.8	6	5.5
5.9	6.4	6.9	66	6.9	6.1	5.6
6	6.5	7	66.5	7	6.2	5.7

ANNEX 4

BOYS (WEIGHT)				GIRLS (WEIGHT)		
6.1	6.6	7.1	67	7.1	6.3	5.8
6.2	6.7	7.2	67.5	7.2	6.4	5.9
6.3	6.8	7.3	68	7.3	6.5	6
6.4	6.9	7.5	68.5	7.5	6.6	6.1
6.5	7	7.6	69	7.6	6.7	6.1
6.6	7.1	7.7	69.5	7.7	6.8	6.2
6.6	7.2	7.8	70	7.8	6.9	6.3
6.7	7.3	7.9	70.5	7.9	6.9	6.4
6.8	7.4	8	71	8	7	6.5
6.9	7.5	8.1	71.5	8.1	7.1	6.5
7	7.6	8.2	72	8.2	7.2	6.6
7.1	7.6	8.3	72.5	8.3	7.3	6.7
BOYS (WEIGHT)				GIRLS (WEIGHT)		
7.2	7.7	8.4	73	8.4	7.4	6.8
7.2	7.8	8.5	73.5	8.5	7.4	6.9
7.3	7.9	8.6	74	8.6	7.5	6.9
7.4	8	8.7	74.5	8.7	7.6	7
7.5	8.1	8.8	75	8.8	7.7	7.1
7.6	8.2	8.8	75.5	8.8	7.8	7.1
7.6	8.3	8.9	76	8.9	7.8	7.2
7.7	8.3	9	76.5	9	7.9	7.3
7.8	8.4	9.1	77	9.1	8	7.4
7.9	8.5	9.2	77.5	9.2	8.1	7.4
7.9	8.6	9.3	78	9.3	8.2	7.5
8	8.7	9.4	78.5	9.4	8.2	7.6
8.1	8.7	9.5	79	9.5	8.3	7.7
8.2	8.8	9.5	79.5	9.5	8.4	7.7
8.2	8.9	9.6	80	9.6	8.5	7.8
8.3	9	9.7	80.5	9.7	8.6	7.9
8.4	9.1	9.8	81	9.8	8.7	8
8.5	9.1	9.9	81.5	9.9	8.8	8.1
8.5	9.2	10	82	10	8.8	8.1
8.6	9.3	10.1	82.5	10.1	8.9	8.2
8.7	9.4	10.2	83	10.2	9	8.3
8.8	9.5	10.3	83.5	10.3	9.1	8.4
8.9	9.6	10.4	84	10.4	9.2	8.5
9	9.7	10.5	84.5	10.5	9.3	8.6
9.1	9.8	10.6	85	10.6	9.4	8.7
9.2	9.9	10.7	85.5	10.7	9.5	8.8
9.3	10	10.8	86	10.8	9.7	8.9
9.4	10.1	11	86.5	11	9.8	9
9.5	10.2	11.1	87	11.1	9.9	9.1
9.6	10.4	11.2	87.5	11.2	10	9.2
9.7	10.5	11.3	88	11.3	10.1	9.3
9.8	10.6	11.4	88.5	11.4	10.2	9.4
9.9	10.7	11.5	89	11.5	10.3	9.5
10	10.8	11.6	89.5	11.6	10.4	9.6
10.1	10.9	11.8	90	11.8	10.5	9.7
10.2	11	11.9	90.5	11.9	10.6	9.8

ANNEX 4

BOYS (WEIGHT)				GIRLS (WEIGHT)		
10.3	11.1	12	91	12	10.7	9.9
10.4	11.2	12.1	91.5	12.1	10.8	10
10.5	11.3	12.2	92	12.2	10.9	10.1
10.6	11.4	12.3	92.5	12.3	11	10.1
10.7	11.5	12.4	93	12.4	11.1	10.2
10.7	11.6	12.5	93.5	12.5	11.2	10.3
10.8	11.7	12.6	94	12.6	11.3	10.4
10.9	11.8	12.7	94.5	12.7	11.4	10.5
11	11.9	12.8	95	12.8	11.5	10.6
11.1	12	12.9	95.5	12.9	11.6	10.7
11.2	12.1	13.1	96	13.1	11.7	10.8
11.3	12.2	13.2	96.5	13.2	11.8	10.9
11.4	12.3	13.3	97	13.3	12	11
11.5	12.4	13.4	97.5	13.4	12.1	11.1
11.6	12.5	13.5	98	13.5	12.2	11.2
11.7	12.6	13.6	98.5	13.6	12.3	11.3
11.8	12.7	13.7	99	13.7	12.4	11.4
11.9	12.8	13.9	99.5	13.9	12.5	11.5
12	12.9	14	100	14	12.6	11.6

ANNEX 5

WEIGHT FOR HEIGHT LOOK UP TABLES
(24-59 MONTHS)

BOYS (WEIGHT)				GIRLS (WEIGHT)		
5.9	6.3	6.9	65	6.6	6.1	5.6
6	6.4	7	65.5	6.7	6.2	5.7
6.1	6.5	7.1	66	6.8	6.3	5.8
6.1	6.6	7.2	66.5	6.9	6.4	5.8
6.2	6.7	7.3	67	7	6.4	5.9
6.3	6.8	7.4	67.5	7.1	6.5	6
6.4	6.9	7.5	68	7.2	6.6	6.1
6.5	7	7.6	68.5	7.3	6.7	6.2
6.6	7.1	7.7	69	7.4	6.8	6.3
6.7	7.2	7.8	69.5	7.5	6.9	6.3
6.8	7.3	7.9	70	7.6	7	6.4
6.9	7.4	8	70.5	7.7	7.1	6.5
6.9	7.5	8.1	71	7.8	7.1	6.6
7	7.6	8.2	71.5	7.9	7.2	6.7
7.1	7.7	8.3	72	8	7.3	6.7
7.2	7.8	8.4	72.5	8.1	7.4	6.8
7.3	7.9	8.5	73	8.1	7.5	6.9
7.4	7.9	8.6	73.5	8.2	7.6	7
7.4	8	8.7	74	8.3	7.6	7
7.5	8.1	8.8	74.5	8.4	7.7	7.1
7.6	8.2	8.9	75	8.5	7.8	7.2
7.7	8.3	9	75.5	8.6	7.9	7.2
7.7	8.4	9.1	76	8.7	8	7.3
7.8	8.5	9.2	76.5	8.7	8	7.4
7.9	8.5	9.2	77	8.8	8.1	7.5
8	8.6	9.3	77.5	8.9	8.2	7.5
8	8.7	9.4	78	9	8.3	7.6
8.1	8.8	9.5	78.5	9.1	8.4	7.7
8.2	8.8	9.6	79	9.2	8.4	7.8
8.3	8.9	9.7	79.5	9.3	8.5	7.8
8.3	9	9.7	80	9.4	8.6	7.9
8.4	9.1	9.8	80.5	9.5	8.7	8
8.5	9.2	9.9	81	9.6	8.8	8.1
8.6	9.3	10	81.5	9.7	8.9	8.2
8.7	9.3	10.1	82	9.8	9	8.3
8.7	9.4	10.2	82.5	9.9	9.1	8.4

ANNEX 5

BOYS (WEIGHT)				GIRLS (WEIGHT)		
8.8	9.5	10.3	83	10	9.2	8.5
8.9	9.6	10.4	83.5	10.1	9.3	8.5
9	9.7	10.5	84	10.2	9.4	8.6
9.1	9.9	10.7	84.5	10.3	9.5	8.7
9.2	10	10.8	85	10.4	9.6	8.8
9.3	10.1	10.9	85.5	10.6	9.7	8.9
9.4	10.2	11	86	10.7	9.8	9
9.5	10.3	11.1	86.5	10.8	9.9	9.1
9.6	10.4	11.2	87	10.9	10	9.2
9.7	10.5	11.3	87.5	11	10.1	9.3
9.8	10.6	11.5	88	11.1	10.2	9.4
9.9	10.7	11.6	88.5	11.2	10.3	9.5
10	10.8	11.7	89	11.4	10.4	9.6
10.1	10.9	11.8	89.5	11.5	10.5	9.7
10.2	11	11.9	90	11.6	10.6	9.8
10.3	11.1	12	90.5	11.7	10.7	9.9
10.4	11.2	12.1	91	11.8	10.9	10
10.5	11.3	12.2	91.5	11.9	11	10.1
10.6	11.4	12.3	92	12	11.1	10.2
10.7	11.5	12.4	92.5	12.1	11.2	10.3
10.8	11.6	12.6	93	12.3	11.3	10.4
10.9	11.7	12.7	93.5	12.4	11.4	10.5
11	11.8	12.8	94	12.5	11.5	10.6
11.1	11.9	12.9	94.5	12.6	11.6	10.7
11.1	12	13	95	12.7	11.7	10.8
11.2	12.1	13.1	95.5	12.8	11.8	10.8
11.3	12.2	13.2	96	12.9	11.9	10.9
11.4	12.3	13.3	96.5	13.1	12	11
11.5	12.4	13.4	97	13.2	12.1	11.1
11.6	12.5	13.6	97.5	13.3	12.2	11.2
11.7	12.6	13.7	98	13.4	12.3	11.3
11.8	12.8	13.8	98.5	13.5	12.4	11.4
11.9	12.9	13.9	99	13.7	12.5	11.5
12	13	14	99.5	13.8	12.7	11.6
12.1	13.1	14.2	100	13.9	12.8	11.7
12.2	13.2	14.3	100.5	14.1	12.9	11.9
12.3	13.3	14.4	101	14.2	13	12
12.4	13.4	14.5	101.5	14.3	13.1	12.1
12.5	13.6	14.7	102	14.5	13.3	12.2
12.6	13.7	14.8	102.5	14.6	13.4	12.3
12.8	13.8	14.9	103	14.7	13.5	12.4

BOYS (WEIGHT)				GIRLS (WEIGHT)		
12.9	13.9	15.1	103.5	14.9	13.6	12.5
13	14	15.2	104	15	13.8	12.6
13.1	14.2	15.4	104.5	15.2	13.9	12.8
13.2	14.3	15.5	105	15.3	14	12.9
13.3	14.4	15.6	105.5	15.5	14.2	13
13.4	14.5	15.8	106	15.6	14.3	13.1
13.5	14.7	15.9	106.5	15.8	14.5	13.3
13.7	14.8	16.1	107	15.9	14.6	13.4
13.8	14.9	16.2	107.5	16.1	14.7	13.5
13.9	15.1	16.4	108	16.3	14.9	13.7
14	15.2	16.5	108.5	16.4	15	13.8
14.1	15.3	16.7	109	16.6	15.2	13.9
14.3	15.5	16.8	109.5	16.8	15.4	14.1
14.4	15.6	17	110	17	15.5	14.2

ANNEX 6

BMI-FOR-AGE LOOK UP TABLE FOR CHILDREN 5 TO 19 YEARS

BOYS						GIRLS			
-3SD	-2SD	-1SD	MEDIAN			MEDIAN	-1SD	-2SD	-3SD
12.1	13.0	14.1	15.3	5:1	61	15.2	13.9	12.7	11.8
12.1	13.0	14.1	15.3	5:2	62	15.2	13.9	12.7	11.8
12.1	13.0	14.1	15.3	5:3	63	15.2	13.9	12.7	11.8
12.1	13.0	14.1	15.3	5:4	64	15.2	13.9	12.7	11.8
12.1	13.0	14.1	15.3	5:5	65	15.2	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:6	66	15.2	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:7	67	15.2	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:8	68	15.3	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:9	69	15.3	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:10	70	15.3	13.9	12.7	11.7
12.1	13.0	14.1	15.3	5:11	71	15.3	13.9	12.7	11.7
12.1	13.0	14.1	15.3	6:0	72	15.3	13.9	12.7	11.7
12.1	13.0	14.1	15.3	6:1	73	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.3	6:2	74	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.3	6:3	75	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.4	6:4	76	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.4	6:5	77	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.4	6:6	78	15.3	13.9	12.7	11.7
12.2	13.1	14.1	15.4	6:7	79	15.3	13.9	12.7	11.7
12.2	13.1	14.2	15.4	6:8	80	15.3	13.9	12.7	11.7
12.2	13.1	14.2	15.4	6:9	81	15.4	13.9	12.7	11.7
12.2	13.1	14.2	15.4	6:10	82	15.4	13.9	12.7	11.7
12.2	13.1	14.2	15.5	6:11	83	15.4	13.9	12.7	11.7
12.3	13.1	14.2	15.5	7:0	84	15.4	13.9	12.7	11.8
12.3	13.2	14.2	15.5	7:1	85	15.4	13.9	12.7	11.8
12.3	13.2	14.2	15.5	7:2	86	15.4	14.0	12.8	11.8
12.3	13.2	14.3	15.5	7:3	87	15.5	14.0	12.8	11.8
12.3	13.2	14.3	15.6	7:4	88	15.5	14.0	12.8	11.8
12.3	13.2	14.3	15.6	7:5	89	15.5	14.0	12.8	11.8
12.3	13.2	14.3	15.6	7:6	90	15.5	14.0	12.8	11.8
12.3	13.2	14.3	15.6	7:7	91	15.5	14.0	12.8	11.8

ANNEX 6

BOYS						GIRLS			
-3SD	-2SD	-1SD	MEDIAN			MEDIAN	-1SD	-2SD	-3SD
12.3	13.2	14.3	15.6	7:8	92	15.6	14.0	12.8	11.8
12.4	13.2	14.3	15.7	7:9	93	15.6	14.1	12.8	11.8
12.4	13.3	14.4	15.7	7:10	94	15.6	14.1	12.9	11.9
12.4	13.3	14.4	15.7	7:11	95	15.7	14.1	12.9	11.9
12.4	13.3	14.4	15.7	8:0	96	15.7	14.1	12.9	11.9
12.4	13.3	14.4	15.8	8:1	97	15.7	14.1	12.9	11.9
12.4	13.3	14.4	15.8	8:2	98	15.7	14.2	12.9	11.9
12.4	13.3	14.4	15.8	8:3	99	15.8	14.2	12.9	11.9
12.4	13.4	14.5	15.8	8:4	100	15.8	14.2	13.0	11.9
12.5	13.4	14.5	15.9	8:5	101	15.8	14.2	13.0	12.0
12.5	13.4	14.5	15.9	8:6	102	15.9	14.3	13.0	12.0
12.5	13.4	14.5	15.9	8:7	103	15.9	14.3	13.0	12.0
12.5	13.4	14.5	15.9	8:8	104	15.9	14.3	13.0	12.0
12.5	13.4	14.6	16.0	8:9	105	16.0	14.3	13.1	12.0
12.5	13.5	14.6	16.0	8:10	106	16.0	14.4	13.1	12.1
12.5	13.5	14.6	16.0	8:11	107	16.1	14.4	13.1	12.1
12.6	13.5	14.6	16.0	9:0	108	16.1	14.4	13.1	12.1
12.6	13.5	14.6	16.1	9:1	109	16.1	14.5	13.2	12.1
12.6	13.5	14.7	16.1	9:2	110	16.2	14.5	13.2	12.1
12.6	13.5	14.7	16.1	9:3	111	16.2	14.5	13.2	12.2
12.6	13.6	14.7	16.2	9:4	112	16.3	14.6	13.2	12.2
12.6	13.6	14.7	16.2	9:5	113	16.3	14.6	13.3	12.2
12.6	13.6	14.8	16.2	9:6	114	16.3	14.6	13.3	12.2
12.7	13.6	14.8	16.3	9:7	115	16.4	14.7	13.3	12.3
12.7	13.6	14.8	16.3	9:8	116	16.4	14.7	13.4	12.3
12.7	13.7	14.8	16.3	9:9	117	16.5	14.7	13.4	12.3
12.7	13.7	14.9	16.4	9:10	118	16.5	14.8	13.4	12.3
12.8	13.7	14.9	16.4	9:11	119	16.6	14.8	13.4	12.4
12.8	13.7	14.9	16.4	10:0	120	16.6	14.8	13.5	12.4
12.8	13.8	15.0	16.5	10:1	121	16.7	14.9	13.5	12.4
12.8	13.8	15.0	16.5	10:2	122	16.7	14.9	13.5	12.4
12.8	13.8	15.0	16.6	10:3	123	16.8	15.0	13.6	12.5
12.9	13.8	15.0	16.6	10:4	124	16.8	15.0	13.6	12.5
12.9	13.9	15.1	16.6	10:5	125	16.9	15.0	13.6	12.5
12.9	13.9	15.1	16.7	10:6	126	16.9	15.1	13.7	12.5
12.9	13.9	15.1	16.7	10:7	127	17.0	15.1	13.7	12.6
13.0	13.9	15.2	16.8	10:8	128	17.0	15.2	13.7	12.6
13.0	14.0	15.2	16.8	10:9	129	17.1	15.2	13.8	12.6
13.0	14.0	15.2	16.9	10:10	130	17.1	15.3	13.8	12.7
13.0	14.0	15.3	16.9	10:11	131	17.2	15.3	13.8	12.7
13.1	14.1	15.3	16.9	11:0	132	17.2	15.3	13.9	12.7
13.1	14.1	15.3	17.0	11:1	133	17.3	15.4	13.9	12.8
13.1	14.1	15.4	17.0	11:2	134	17.4	15.4	14.0	12.8
13.1	14.1	15.4	17.1	11:3	135	17.4	15.5	14.0	12.8
13.2	14.2	15.5	17.1	11:4	136	17.5	15.5	14.0	12.9
13.2	14.2	15.5	17.2	11:5	137	17.5	15.6	14.1	12.9
13.2	14.2	15.5	17.2	11:6	138	17.6	15.6	14.1	12.9
13.2	14.3	15.6	17.3	11:7	139	17.7	15.7	14.2	13.0
13.3	14.3	15.6	17.3	11:8	140	17.7	15.7	14.2	13.0
13.3	14.3	15.7	17.4	11:9	141	17.8	15.8	14.3	13.0
13.3	14.4	15.7	17.4	11:10	142	17.9	15.8	14.3	13.1
13.4	14.4	15.7	17.5	11:11	143	17.9	15.9	14.3	13.1
13.4	14.5	15.8	17.5	12:0	144	18.0	16.0	14.4	13.2
13.4	14.5	15.8	17.6	12:1	145	18.1	16.0	14.4	13.2
13.5	14.5	15.9	17.6	12:2	146	18.1	16.1	14.5	13.2
13.5	14.6	15.9	17.7	12:3	147	18.2	16.1	14.5	13.3
13.5	14.6	16.0	17.8	12:4	148	18.3	16.2	14.6	13.3
13.6	14.6	16.0	17.8	12:5	149	18.3	16.2	14.6	13.3
13.6	14.7	16.1	17.9	12:6	150	18.4	16.3	14.7	13.4
13.6	14.7	16.1	17.9	12:7	151	18.5	16.3	14.7	13.4
13.7	14.8	16.2	18.0	12:8	152	18.5	16.4	14.8	13.5
13.7	14.8	16.2	18.0	12:9	153	18.6	16.4	14.8	13.5
13.7	14.8	16.3	18.1	12:10	154	18.7	16.5	14.8	13.5

ANNEX 6

BOYS						GIRLS			
-3SD	-2SD	-1SD	MEDIAN			MEDIAN	-1SD	-2SD	-3SD
13.8	14.9	16.3	18.2	12:11	155	18.7	16.6	14.9	13.6
13.8	14.9	16.4	18.2	13:0	156	18.8	16.6	14.9	13.6
13.8	15.0	16.4	18.3	13:1	157	18.9	16.7	15.0	13.6
13.9	15.0	16.5	18.4	13:2	158	18.9	16.7	15.0	13.7
13.9	15.1	16.5	18.4	13:3	159	19.0	16.8	15.1	13.7
14.0	15.1	16.6	18.5	13:4	160	19.1	16.8	15.1	13.8
14.0	15.2	16.6	18.6	13:5	161	19.1	16.9	15.2	13.8
14.0	15.2	16.7	18.6	13:6	162	19.2	16.9	15.2	13.8
14.1	15.2	16.7	18.7	13:7	163	19.3	17.0	15.2	13.9
14.1	15.3	16.8	18.7	13:8	164	19.3	17.0	15.3	13.9
14.1	15.3	16.8	18.8	13:9	165	19.4	17.1	15.3	13.9
14.2	15.4	16.9	18.9	13:10	166	19.4	17.1	15.4	14.0
14.2	15.4	17.0	18.9	13:11	167	19.5	17.2	15.4	14.0
14.3	15.5	17.0	19.0	14:0	168	19.6	17.2	15.4	14.0
14.3	15.5	17.1	19.1	14:1	169	19.6	17.3	15.5	14.1
14.3	15.6	17.1	19.1	14:2	170	19.7	17.3	15.5	14.1
14.4	15.6	17.2	19.2	14:3	171	19.7	17.4	15.6	14.1
14.4	15.7	17.2	19.3	14:4	172	19.8	17.4	15.6	14.1
14.5	15.7	17.3	19.3	14:5	173	19.9	17.5	15.6	14.2
14.5	15.7	17.3	19.4	14:6	174	19.9	17.5	15.7	14.2
14.5	15.8	17.4	19.5	14:7	175	20.0	17.6	15.7	14.2
14.6	15.8	17.4	19.5	14:8	176	20.0	17.6	15.7	14.3
14.6	15.9	17.5	19.6	14:9	177	20.1	17.6	15.8	14.3
14.6	15.9	17.5	19.6	14:10	178	20.1	17.7	15.8	14.3
14.7	16.0	17.6	19.7	14:11	179	20.2	17.7	15.8	14.3
14.7	16.0	17.6	19.8	15:0	180	20.2	17.8	15.9	14.4
14.7	16.1	17.7	19.8	15:1	181	20.3	17.8	15.9	14.4
14.8	16.1	17.8	19.9	15:2	182	20.3	17.8	15.9	14.4
14.8	16.1	17.8	20.0	15:3	183	20.4	17.9	16.0	14.4
14.8	16.2	17.9	20.0	15:4	184	20.4	17.9	16.0	14.5
14.9	16.2	17.9	20.1	15:5	185	20.4	17.9	16.0	14.5
14.9	16.3	18.0	20.1	15:6	186	20.5	18.0	16.0	14.5
15.0	16.3	18.0	20.2	15:7	187	20.5	18.0	16.1	14.5
15.0	16.3	18.1	20.3	15:8	188	20.6	18.0	16.1	14.5
15.0	16.4	18.1	20.3	15:9	189	20.6	18.1	16.1	14.5
15.0	16.4	18.2	20.4	15:10	190	20.6	18.1	16.1	14.6
15.1	16.5	18.2	20.4	15:11	191	20.7	18.1	16.2	14.6
15.1	16.5	18.2	20.5	16:0	192	20.7	18.2	16.2	14.6
15.1	16.5	18.3	20.6	16:1	193	20.7	18.2	16.2	14.6
15.2	16.6	18.3	20.6	16:2	194	20.8	18.2	16.2	14.6
15.2	16.6	18.4	20.7	16:3	195	20.8	18.2	16.2	14.6
15.2	16.7	18.4	20.7	16:4	196	20.8	18.3	16.2	14.6
15.3	16.7	18.5	20.8	16:5	197	20.9	18.3	16.3	14.6
15.3	16.7	18.5	20.8	16:6	198	20.9	18.3	16.3	14.7
15.3	16.8	18.6	20.9	16:7	199	20.9	18.3	16.3	14.7
15.3	16.8	18.6	20.9	16:8	200	20.9	18.3	16.3	14.7
15.4	16.8	18.7	21.0	16:9	201	21.0	18.4	16.3	14.7
15.4	16.9	18.7	21.0	16:10	202	21.0	18.4	16.3	14.7
15.4	16.9	18.7	21.1	16:11	203	21.0	18.4	16.3	14.7
15.4	16.9	18.8	21.1	17:0	204	21.0	18.4	16.4	14.7
15.5	17.0	18.8	21.2	17:1	205	21.1	18.4	16.4	14.7
15.5	17.0	18.9	21.2	17:2	206	21.1	18.4	16.4	14.7

ANNEX 6

BOYS						GIRLS			
-3SD	-2SD	-1SD	MEDIAN			MEDIAN	-1SD	-2SD	-3SD
15.5	17.0	18.9	21.3	17:3	207	21.1	18.5	16.4	14.7
15.5	17.1	18.9	21.3	17:4	208	21.1	18.5	16.4	14.7
15.6	17.1	19.0	21.4	17:5	209	21.1	18.5	16.4	14.7
15.6	17.1	19.0	21.4	17:6	210	21.2	18.5	16.4	14.7
15.6	17.1	19.1	21.5	17:7	211	21.2	18.5	16.4	14.7
15.6	17.2	19.1	21.5	17:8	212	21.2	18.5	16.4	14.7
15.6	17.2	19.1	21.6	17:9	213	21.2	18.5	16.4	14.7
15.7	17.2	19.2	21.6	17:10	214	21.2	18.5	16.4	14.7
15.7	17.3	19.2	21.7	17:11	215	21.2	18.6	16.4	14.7
15.7	17.3	19.2	21.7	18:0	216	21.3	18.6	16.4	14.7
15.7	17.3	19.3	21.8	18:1	217	21.3	18.6	16.5	14.7
15.7	17.3	19.3	21.8	18:2	218	21.3	18.6	16.5	14.7
15.7	17.4	19.3	21.8	18:3	219	21.3	18.6	16.5	14.7
15.8	17.4	19.4	21.9	18:4	220	21.3	18.6	16.5	14.7
15.8	17.4	19.4	21.9	18:5	221	21.3	18.6	16.5	14.7
15.8	17.4	19.4	22.0	18:6	222	21.3	18.6	16.5	14.7
15.8	17.5	19.5	22.0	18:7	223	21.4	18.6	16.5	14.7
15.8	17.5	19.5	22.0	18:8	224	21.4	18.6	16.5	14.7
15.8	17.5	19.5	22.1	18:9	225	21.4	18.7	16.5	14.7
15.8	17.5	19.6	22.1	18:10	226	21.4	18.7	16.5	14.7
15.8	17.5	19.6	22.2	18:11	227	21.4	18.7	16.5	14.7
15.9	17.6	19.6	22.2	19:0	228	21.4	18.7	16.5	14.7

This BMI for age look-up table has been constructed using the WHO reference tables for BMI-for-age z-scores for 5 to 19 years.

ANNEX 7

BODY MASS INDEX (ADULTS) (W/H²) WT IN KG AND HEIGHT IN METRES

Height (cm)	BMI					
	18.5	18	17.5	17	16.5	16
WEIGHT IN KG						
140	36.3	35.3	34.3	33.3	32.3	31.4
141	36.8	35.8	34.8	33.8	32.8	31.8
142	37.3	36.3	35.3	34.3	33.3	32.3
143	37.8	36.8	35.8	34.8	33.7	32.7
144	38.4	37.3	36.3	35.3	34.2	33.2
145	38.9	37.8	36.8	35.7	34.7	33.6
146	39.4	38.4	37.3	36.2	35.2	34.1
147	40.0	38.9	37.8	36.7	35.7	34.6
148	40.5	39.4	38.3	37.2	36.1	35.0
149	41.1	40.0	38.9	37.7	36.6	35.5
150	41.6	40.5	39.4	38.3	37.1	36.0
151	42.2	41.0	39.9	38.3	37.6	36.5
152	42.7	41.6	40.4	39.3	38.1	37.0
153	43.3	42.1	41.0	39.8	38.6	37.5
154	43.9	42.7	41.5	40.3	39.1	37.9
155	44.4	43.2	42.0	40.8	39.6	38.4
156	45.0	43.8	42.6	41.4	40.2	38.9
157	45.6	44.4	43.1	41.9	40.7	39.4
158	46.2	44.9	43.7	42.4	41.2	39.9
159	46.8	45.5	44.2	43.0	41.7	40.4
160	47.4	46.1	44.8	43.5	42.2	41.0
161	48.0	46.7	45.4	44.1	42.8	41.5
162	48.6	47.2	45.9	44.6	43.3	42.0
163	49.2	47.8	46.5	45.2	43.8	42.5
164	49.8	48.4	47.1	45.7	44.4	43.0

Height (cm)	BMI					
	18.5	18	17.5	17	16.5	16
WEIGHT IN KG						
165	50.4	49.0	47.6	46.3	44.9	43.6
166	51.0	49.6	48.2	46.8	45.5	44.1
167	51.6	50.2	48.8	47.4	46.0	44.6
168	52.2	50.8	49.4	48.0	46.6	45.2
169	52.8	51.4	50.0	48.6	47.1	45.7
170	53.5	52.0	50.6	49.1	47.7	46.2
171	54.1	52.6	51.2	49.7	48.2	46.8
172	54.7	53.3	51.8	50.3	48.8	47.3
173	55.4	53.9	52.4	50.9	49.4	47.9
174	56.0	54.5	53.0	51.5	50.0	48.4
175	56.7	55.1	53.6	52.1	50.5	49.0
176	57.3	55.8	54.2	52.7	51.1	49.6
177	58.0	56.4	54.8	53.3	51.7	50.1
178	58.6	57.0	55.4	53.9	52.3	50.7
179	59.3	57.7	56.1	54.5	52.9	51.3
180	59.9	58.3	56.7	55.1	53.5	51.8
181	60.6	59.0	57.3	55.7	54.1	52.4
182	61.3	59.6	58.0	56.3	54.7	53.0
183	62.0	60.3	58.6	56.9	55.3	53.6
184	62.6	60.9	59.2	57.6	55.9	54.2
185	63.3	61.6	59.9	58.2	56.5	54.8
186	64.0	62.3	60.5	58.8	57.1	55.4
187	64.7	62.9	61.2	59.4	57.7	56.0
188	65.4	63.6	61.9	60.1	58.3	56.6
189	66.1	64.3	62.5	60.7	58.9	57.2
190	66.8	65.0	63.2	61.4	59.6	57.8

ANNEX 8

COMMUNITY SCREENING REFERRAL SLIP

OPTION 1 (for HHPS/Volunteers who can read and write)

State		County				
Name of child/PLW						
Name of mother/caregiver						
Physical Address	Payam		Referral Health/Nutrition Facility			
	Village/Boma					
Date of screening and referral						
Bilateral pitting oedema (Tick "YES" or "No" depending on presence or absence of swelling of both feet)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	MUAC (TICK)	RED	YELLOW	<23.0cm
Other findings	<input type="checkbox"/> Fever	<input type="checkbox"/> Diarrhoea	<input type="checkbox"/> Fast breathing	Others (Specify)		
Name HHP/volunteer						
Signature						

FEEDBACK FROM HEALTH WORKER TO COMMUNITY VOLUNTEER

(Fill this section, tear off and give to the caregiver)

Date (dd/mm/yy) _____ Name of Health Facility _____

Child admitted/referred to: (Tick as appropriate)

Outpatient treatment programme (OTP)

Stabilization centre (SC)/inpatient therapeutic programme (ITP)

Targeted supplementary feeding programme (TSFP)


Does not qualify for admission (counsel on eating well and hygiene)

Health /nutrition worker's name and signature: _____

ANNEX 8

OPTION 2: (for HHPs/volunteers who cannot read and write)

To be filled by staff at the health facility/nutrition site and distributed to Home Health Promoters (HHPs)/Volunteers with difficulties in writing and reading. Please instruct the HPPS to tear off the appropriate section of the referral slip (based on reason for referral i.e. child with yellow or red MUAC or bilateral pitting oedema) and give it to the mother/caregiver to take it with the child to the health facility.

COMMUNITY REFERRAL SLIP	COMMUNITY REFERRAL SLIP	COMMUNITY REFERRAL SLIP
State _____	State _____	State _____
County _____	County _____	County _____
Payam _____	Payam _____	Payam _____
Health facility _____	Health facility _____	Health facility _____
Name of HHP/Volunteer _____	Name of HHP/Volunteer _____	Name of HHP/Volunteer _____
Card No _____	Card No _____	Card No _____
		

ANNEX 9

REFERRAL FORM FOR SC/ITP/OTP/TSFP

State	County	Payam	Village/Boma
Date			
Referred from (Health/Nutrition Facility)			
Referred to			
REFERENCE			
Name		Registration No	Date of first visit
Age (months for children or years for adults)	Sex <input type="checkbox"/> Male <input type="checkbox"/> Female	Temperature (OC)	
Weight (kg)	Bilateral pitting oedema <input type="checkbox"/> Yes <input type="checkbox"/> No	MUAC (cm) /WFL/H z-score	
	Grade <input type="checkbox"/> + <input type="checkbox"/> ++ <input type="checkbox"/> +++		
Please attend to the above person who we are referring to your health/nutrition facility for further action			
History and symptoms			
Investigations done			
Diagnosis			
Treatment given before referral			
Vaccinations			
Deworming			
Vitamin A			
Reason for referral			
Name of clinician/health provider		Signature	

Please complete this note and send it back to our facility

TO BE COMPLETED AT THE REFERRAL SITE

Date of arrival	
Further investigations	
Diagnosis	
Treatment given	
Treatment/surveillance to be continued	
Remarks	
Name of health provider	Signature

ANNEX 10

HOME VISIT TOOLS

A: How to conduct a home visit**ON ARRIVAL:**

- Greet the people in the homestead and introduce yourself.
- Be humble, make the caregiver comfortable, and encourage her.
- Introduce the purpose of your visit and the topics to be discussed depending on need:
 - MIYCN practices
 - Hygiene practices
 - Symptoms of malnutrition
 - The importance of taking the child for growth monitoring every month
 - Treatment of malnutrition in children at the health facility
 - Explain/demonstrate to the caregiver about how to feed RUTF, and administer the routine medicine to the child
- Involve the caregiver by asking questions about the topics to be discussed.
- Explain to the caregiver about the topics, and the importance of following the discussion regarding the health of the child.
- Ask the caregiver what she thinks is the best way to prevent malnutrition in children.
- Ask for permission to measure the MUAC of the child so that if the child needs help on nutritional care, she can be referred to a health facility.

- If the MUAC measurement reflects **Yellow** or **Red** colour code, ask the caregiver to take the child to the nearest health facility for further assessment and treatment.

WHEN LEAVING:

- If the child's MUAC was **Yellow** or **Red** emphasize that the child should go to a health facility immediately. HHPs are responsible for conducting referrals of cases identified with acute malnutrition
- If the child is already being treated for acute malnutrition using RUTF or RUSF, emphasize:
 - The messages on health and hygiene,
 - That RUTF or RUSF is medicine for the acutely malnourished child and should not be shared with other children
 - Continue going to the health facility for monitoring and to receive the treatment.
- Make an appointment for the next visit.
- Thank them for welcoming you in their home, and then leave.

ANNEX 10

B: Home visit request form

State		County	
Health/Nutrition Facility		Date of request	Name of HHP / volunteer
Name of child/PLW		OTP/TSFP registration No.	
Age (months if child or in years if PLW)		Sex (if child)	Female
			Male
Name of Caregiver		Physical address	Payam Village/Boma
Reason for home visit	Absence <input type="checkbox"/> Yes <input type="checkbox"/> No	Defaulter <input type="checkbox"/> Yes <input type="checkbox"/> No	Other (specify)
	Poor weight gain/weight loss <input type="checkbox"/> Yes <input type="checkbox"/> No	Dead <input type="checkbox"/> Yes <input type="checkbox"/> No	
Name of Health/Nutrition worker	Signature		

C: Checklist for a requested home visit

Name of HHP/volunteer	
Date of visit	
Name of child	
Name of caregiver	Payam
Physical address	Village/Boma

FEEDING

Is the ration of RUTF/RUSF present in the home?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If not, where is the ration?	
Is the available RUTF/RUSF enough to last until the next OTP/TSFP session?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the RUTF/RUSF being shared or eaten only by the malnourished child?	<input type="checkbox"/> Shared <input type="checkbox"/> Malnourished child only
Yesterday, did the malnourished child eat food other than RUTF/RUSF?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, what type of food?	

ANNEX 10

Yesterday, how often did the child receive breast milk? (for children < 2 years)	
Yesterday, how many times was the malnourished child given RUTF/RUSF to eat?	
Did someone help or encourage the malnourished child to eat?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What does the caregiver do if the malnourished child does not want to eat?	
Is safe drinking water available? (water either boiled or treated appropriately)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is the child given safe drinking water when eating RUTF/RUSF?	<input type="checkbox"/> Yes <input type="checkbox"/> No
CARE	
Are both parents alive and healthy?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Who cares for the malnourished child during the day?	
Is the malnourished child clean?	<input type="checkbox"/> Yes <input type="checkbox"/> No
WATER, HYGIENE AND SANITATION (WASH)	
What is the household's main source of water?	
Is there soap for washing in the house?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do the caregiver and child wash hands and face before the child is fed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is food/RUTF/RUSF covered and free from flies?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What action does the caregiver take when the child has diarrhoea?	
FOOD SECURITY	
Does the household currently have access to food?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What is the main source of income for the household?	
Action to be taken (e.g. mother agreed to bring back the child etc.)	
COMMENTS	

Note: If problems are identified, please list any Health and Nutrition Education or advice given in the space below or on the other side of the page. Return the filled form/information collected to the health facility. The information collected from Home visits should be analyzed and compiled into a summary narrative report. Summary reports can be discussed during the coordination meetings with WASH and FSL sector

ANNEX 11

MINIMUM REQUIREMENTS TO ESTABLISH A NUTRITIONAL SITE

Job Aids monitoring and reporting tools

		QUANTITY	SC	OTP	TSFP	BSFP
JOB AIDS LAMINATED						
1	Anthropometric Measurements	5	X	X	X	X
2	Admission and Discharge Criteria	5	X	X	X	X
3	Look Up Table Weight-for-Length	5	X	X	X	
4	Look Up Table Weight-for-Height					
4	Routine Medicines Protocols	4	X	X	X	
5	Appetite Test	4	X	X	X	
6	Action Protocol in Outpatient Care			X	X	X
7	Key Messages Upon Admission			X	X	X
8	Look Up Table RUTF for Outpatient Care			X		
9	Danger Signs in Inpatient Care		X			
10	Look Up Tables RUTF for Inpatient Care		X			
11	Look Up Tables F75		X			
12	Look Up Table F100		X			
13	Entry and Exit Categories		X	X	X	
14	Health and Nutrition Education Messages for CMAM		X	X	X	X
15	Child friendly spaces (Toys)		X	X	X	
JOB AIDS AND HAND OUTS						
1	National CMAM Guidelines		X	X	X	X
3	List of Sites with Catchment Area and Service Day (if appropriate)		X	X	X	X
4	Training Materials Package		X	X	X	
5	Respective Job Descriptions		X	X	X	
6	Drug dosages		X	X	X	
7	Definitions		X	X	X	
MONITORING AND REPORTING SHEETS RENEWABLE SUPPLIES						
1	Community Assessment Questionnaire					
2	Community Assessment Tools					
3	Referral Slip Community Screening			X	X	X
4	Home Visit Record			X	X	
5	Inpatient Care Treatment Card		X			
6	Daily Feeds Chart		X			
7	Outpatient Care Treatment Card			X		
8	TSFP – treatment card				X	
9	Referral Form for SC/ITP/OTP/TSFP		X	X	X	X
10	Ration cards			X	X	X
11	Site Tally Sheet		X	X	X	X
12	Monthly Site Report		X	X	X	X
13	Register books		X	X	X	X
14	Checklists for Supportive Supervision		X	X	X	X
15	Supply Checklists		X	X	X	X

Basic supplies requirement for nutritional site.

		QUANTITY	SC	OTP	TSFP	BSFP
ANTHROPOMETRIC AND MEDICAL EQUIPMENT						
1	MUAC tapes under five	50	x	x	x	x
2	Adult MUAC tapes	50		x	x	x
3	Salter scale - 25kg	2	x	x	x	x
4	Baby scales	2	x			
5	Digital scale	2	x		x	x
6	Weighing pants	10	x	x	x	x
7	Digital thermometer	2	x	x	x	
8	BP apparatus	1	x			
9	Stethoscope	1	x			

ANNEX 11






		QUANTITY	SC	OTP	TSFP	BSFP
ANTHROPOMETRIC AND MEDICAL EQUIPMENT						
10	ARI Timer	1	x	x	x	
11	Height board	2	x	x	x	
12	Height sticks (87.0cm for U2 and 110.0cm for U5)	10			x	x
STATIONARIES						
1	Marker pens	1 pack				
2	Ball point pens	1 pack				
3	Ruler 30cm	2 pcs				
4	Calculator	1 pc				
5	Note books hard covers A4	2				
6	Box files	10				
7	Paper punch	1				
8	Stapler & staples	1				
9	Eraser	5				
10	Pencils	1 pack				
11	Scissors					
HYGIENE AND SANITATION REQUIREMENTS						
1	Latrine	2	x	x	x	x
2	Hand washing stations	2	x	x	x	x
3	Bar soap	2	x	x	x	x
4	Container for drinking water	2	x	x	x	x
5	Plastics cups	20	x	x	x	x
6	Teaspoon & medicine cups	10	x	x	x	x
7	Bucket and lid	4	x	x	x	x
8	Incinerator	1	x	x	x	
9	Trash bin	2	x	x	x	x
10	Brooms	2	x	x	x	x
11	Scrubbing brush	2	x	x	x	x
12	Cleaning bucket	2	x	x	x	x
13	Plastic gloves	2	x	x	x	x
14	Mop	2	x	x	x	x
15	Powder or liquid detergent	2	x	x	x	x
16	Cob web brush	2	x	x	x	x
17	Plastic boots	2	x	x	x	x
FURNITURE						
1	Tables	3	x	x	x	x
2	Chairs	5	x	x	x	x
3	Plastic mats	5	x	x	x	x
4	Benches	2	x	x	x	x
5	Plastic sheets	5			x	x
INFRASTRUCTURE						
	Shelter/ waiting bay		x	x	x	x
	Store for supplies		x	x	x	x
	Screening and triage area.		x	x	x	x
		Quantity	SC	OTP	TSFP	BSFP
	Consultation room		x	x	x	
STAFFING REQUIREMENT						
S1	Qualified nurse/ nurse assistant		1	+1		
S2	Nutrition assistants		4	+2		
S3	Support staff		2			
OTHERS						
1	Weighing scale and calibrated container to measure ration				X	X
2	Community outreach reporting					
3	CMAM narrative reporting					
4	Filing System					
5	CMAM database					
6	MIYCN BCC charts					

Note: This is guidance during the establishment of site which is subject for change depending on the case load /need

ANNEX 12

SPECIAL NUTRITIOUS FOODS FACT








WFP Specialized Nutritious Foods Sheet

Programme	Treating Moderate Acute Malnutrition (MAM)				
Generic product term	Lipid-based Nutrient Supplement (LNS) Large Quantity (92-100 g) ¹			Fortified Blended Foods (FBF) (200-250g)	
Current WFP nutrition products	Plumpy'sup ² (Peanut-based)	eeZeeRUSF™ (Peanut-based)	Acha Mum (Chickpea-based)	Super Cereal Plus	Super Cereal ³
					
Target group	Children 6-59 months	Children 6-59 months	Children 6-59 months	Children 6-59 months	Pregnant and Lactating Women (PLW) Malnourished individuals on ART/ DOTS
Key Ingredients	Peanuts, sugar, whey, vegetable oil, milk, soy protein, cocoa, V&M	Peanut, sugar, milk solids, vegetable oil, V&M	Chickpeas, vegetable oil, milk powder, sugar, V&M, soya lecithin	Corn/wheat/rice soya, milk powder, sugar, oil, V&M	Corn/wheat/rice soya, V&M
Daily ration	92g sachet	92g sachet	100g sachet	200g (includes provision for sharing)	200-250g (includes provision for sharing)
Nutrient profile	500 kcal, 13g protein (10%), 31g fat (55%). Contains EFA, meets RNI and PDCAAS	500 kcal, 13g protein (11%), 31g fat (56%). Contains EFA, meets RNI and PDCAAS	520 kcal, 13g protein (10%), 29g fat (50%). Contains EFA, meets RNI and PDCAAS	787 kcal, 33g protein (17%), 20g fat (23%). Contains EFA, meets RNI and PDCAAS	752-939 kcal, 31-38g protein (16%), 16-20g fat (19%). Meets RNI and PDCAAS
Avg. duration of intervention ⁴	60-90 days	60-90 days	60-90 days	60-90 days	Variable based on target group ⁵
Shelf life ⁶	24 months	24 months	24 months	18 months	12 months
Shelf life ⁶	Carton: 14.7kg (gross) and 13.8kg (net) has 150 sachets	Carton: 14.9kg (gross) and 13.8kg (net) has 150 sachets	Carton: 10.5kg (net) has 105 sachets	Primary: 1.5kg (net) bag; Secondary: 15kg (net) carton has 10 bags; or 18kg sack has 12 bags	25kg (net) bags

¹Also referred to as RUSF. ²Plumpy'sup is formerly known as Supplementary Plumpy (same product). Note: Plumpy'nut is a different product used for the treatment of severe acute malnutrition (SAM). ³Super Cereal is usually mixed with 20g oil and 15g sugar before distribution (total est. 989-1176 kcal, 31-38g protein (12-13%), 16-20g fat (31-32%)). ⁴Can vary in different situations and contexts. ⁵For PLW, duration lasts from identification to recovery, or until 6 months post-partum, per national protocol. For malnourished individuals on ART/DOTs the avg duration of treatment is 180 days ⁶Shelf life indicated is valid for storage at temperatures less than 30 degrees C. Abbreviations: LNS = Lipid-based Nutrient Supplement, RUSF = Ready-to-Use Supplementary Food, FBF = Fortified Blended Food, EFA = Essential Fatty Acids, ART = Anti-Retroviral Therapy (treatment for HIV), DOTS = Directly Observed Treatment (treatment for TB), RNI = Recommended Nutrient Intakes (FAO/WHO), PDCAAS = Protein Digestibility-Corrected Amino Acid Score (min. 70%), V&M = Vitamins and Minerals, mt = Metric Ton.

ANNEX 12

WFP Specialized Nutritious Foods Sheet

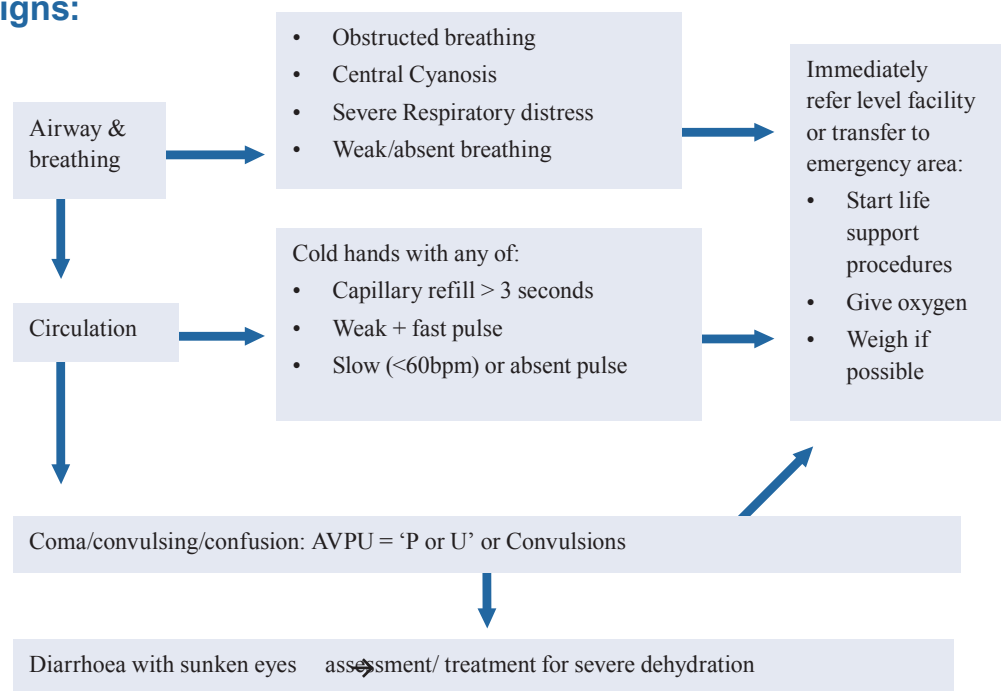
Programme	Preventing Stunting						
	Preventing Acute Malnutrition					Addressing Micronutrient Deficiencies ¹	
Generic product term	Lipid-based Nutrient Supplement (LNS) Medium Quantity (20-50g)			Fortified Blended Food (FBF) (100-200g)		LNS Small Quantity (≤20g)	Micronutrient Powders (1g)
Current WFP nutrition products	Plumpy'doz (Peanut-based)	eeZeeCup™ (Peanut-based)	Wawa Mum (Chickpea-based)	Super Cereal Plus	Super Cereal ²	Nutributter (Peanut-based)	Micronutrient Powders (MNP)
							
Target group	Children 6-23 months	Children 6-23 months	Children 6-23 months	Children 6-23 months	Pregnant and Lactating Women	Children 6-23 months	Children 6-59 months School age children
Key Ingredients	Vegetable fat, peanut, sugar, milk powder, whey, V&M, cocoa	Vegetable fat, peanut, sugar, skimmed milk powder, V&M	Chickpeas, vegetable oil, milk powder, sugar, V&M	Corn/wheat/ rice soya, milk powder, sugar, oil, V&M	Corn/wheat/ rice soya, V&M	Peanuts, vegetable fat, sugar, skim milk powder, whey, V&M	Vitamins and minerals (V&M)
Daily ration	46g portion (1/7 portion of a pot)	46g portion (1/7 portion of a pot)	50g sachet	100-200g (200g includes provision for sharing)	100-200g (200g includes provision for sharing)	20g sachet	1g sachet every second day
Nutrient profile	247 kcal, 5.9g protein (10%), 16g fat (58%). Contains EFA, meets RNI and PDCAAS	253 kcal, 6.0g protein (10%), 15g fat (56%). Contains EFA, meets RNI and PDCAAS	260 kcal, 6.5g protein (10%), 14.5g fat (50%). Contains EFA, meets RNI and PDCAAS	394-787 kcal, 16-33g protein (17%), 10-20g fat (23%). Contains EFA, meets RNI and PDCAAS	376-752 kcal, 15-31g protein (16%), 8-16g fat (19%). Meets RNI and PDCAAS	108 kcal, 2.6g protein (10%), 7g fat (59%). Contains EFA, meets RNI and PDCAAS	Meets RNI (No energy, fat or protein content)
Duration of intervention	Duration will be aligned with national guidelines and will vary with different situations, contexts and objectives (e.g. prevention of acute vs. prevention of stunting) as well as target group. Please refer to programme design guidance for more information.						
Shelf life ³	24 months	18 months	24 months	18 months	12 months	24 months	24 months
Packaging details	Primary packaging: 325g pots. Carton: 12.7kg (gross) and 11.7kg (net) has 36 pots	Primary packaging: 325g pots. Carton: 12.7kg (gross) and 11.7kg (net) has 36 pots	Carton: 10.5kg (net) has 210 sachets	Primary: 1.5kg (net) bag; Secondary: 15kg (net) carton has 10 bags; or 18kg sack has 12 bags	25kg (net) bags	Carton: 11.95kg (gross) and 10.92kg (net) has 546 sachets	Carton: 14kg (gross) has 240 boxes; 30 sachet in each box. *Packaging varies with supplier

¹All nutrition products listed help address micronutrient needs, but small quantity LNS and MNP do not prevent acute malnutrition. ²Super Cereal is usually mixed with 20g oil and 15g sugar before distribution (total est. 613-989 kcal, 15-31g protein (10-12%), 8-16g fat (33-41%)). ³Shelf life indicated is valid for storage at temperatures less than 30 degrees C. Abbreviations: LNS = Lipid-based Nutrient Supplements, RUSF = Ready-to-Use Supplementary Food, FBF = Fortified Blended Food, MNP = Micronutrient Powders, EFA = Essential Fatty Acids, RNI = Recommended Nutrient Intakes, PDCAAS = Protein Digestibility-Corrected Amino Acid Score (min 70%), V&M = Vitamins and Minerals, mt = Metric Ton.

ANNEX 13

TRIAGE OF SICK CHILDREN

Emergency Signs:



Priority signs

- Tiny: sick infant aged < 2months
- Temperature very high: >39 °C
- Trauma: major trauma
- Pain: child in severe pain
- Poison: mother reports poisoning
- Pallor: severe palmar pallor
- Restless/Irritable/Floppy
- Respiratory distress
- Referral: has an urgent referral letter
- Malnutrition:
 - Visible severe wasting
 - Bilateral pitting oedema
- Burns: severe burns

Front of the Queue:
clinical review as soon as possible

- Weigh
- Baseline observations

Medical Complications if Severe Acute Malnutrition

- Hypoglycaemia (Blood Sugar <3mmol/dl)
- Hypothermia Temp ≤35.5 °C, axillar
- Severe infections
- Diarrhoea and Severe dehydration
- Shock
- Very severe anaemia (Hb ≤ 4g/dl)
- Cardiac failure
- Severe dermatosis
- Corneal Ulceration

Non Urgent- children with none of the above signs/medical complications

ANNEX 14

TARGETED SUPPLEMENTARY FEEDING PROGRAMME (TSFP) TREATMENT CARD FOR CHILDREN (6-59 MONTHS)

State	County	Health/Nutrition Facility	
Child's Name		Registration Number	
Date of Admission (dd/mm/yy) _____ / _____ / _____	Sex (M/F)	Age (months)	
Mother's/Caregiver's Name		Payam	
Chief/Sheik		Village/Boma	

FAMILY HISTORY

Birth order _____	Is it 5th child or more? <input type="checkbox"/> Yes <input type="checkbox"/> No	Twin: <input type="checkbox"/> Yes <input type="checkbox"/> No
Father alive <input type="checkbox"/> Yes <input type="checkbox"/> No	Mother Alive <input type="checkbox"/> Yes <input type="checkbox"/> No	
Total number of children under 5 in the household:		
IDP <input type="checkbox"/>	Refugee <input type="checkbox"/>	Host community <input type="checkbox"/>

ADMISSION AND DISCHARGE INFORMATION

Admission type (tick)	Referred from community	Referred from SC/ITP	Referred from OTP	Referred from other TSFP	Other (specify in the remarks below)	New admission	Readmission/relapse?
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
ADMISSION INFORMATION					DISCHARGE INFORMATION (SEE KEY BELOW)		
Bilateral pitting oedema	<input type="checkbox"/> Yes <input type="checkbox"/> No		Admission criteria	<input type="checkbox"/> MUAC ≥ 11.5 < 12.5cm	Date (mm/dd/yy)		
MUAC (cm)				<input type="checkbox"/> WFH/L ≥ -3 < -2 z-score	MUAC (cm)		
Weight (Kg)				<input type="checkbox"/> Other (specify):	Weight (Kg)		
Height/length (cm)					Height/length (cm)		
WFH (z-score)					WFH/L (z-score)		
					Discharge outcome (see key below)		

KEY

A - Absent (misses one visit)	D - Died (dies while registered in TSFP)	DEF - Default (absent for two consecutive visits)	TO - Transfer out: those transferred to OTP/SC/ITP or other TSFP site	R- Referred to a hospital/health facility for medical investigation and care and not in any nutrition programme	NR - Non-Respondent (did not reach discharge criteria after 3 months in TSFP)	C - Cured (MUAC ≥ 12.5 cm or WFH/L ≥ -2 z-score for 2 consecutive visits)
REMARKS						

ANNEX 14

MEDICAL HISTORY AT ADMISSION						
Diarrhoea (3 or more loose stools per day)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Watery diarrhoea	<input type="checkbox"/> Bloody diarrhoea		
Vomiting	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Passing urine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Cough	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, cough lasting 2 weeks or more	<input type="checkbox"/> Yes	<input type="checkbox"/> No	History of contact with a person with TB <input type="checkbox"/> Yes <input type="checkbox"/> No
Appetite:	<input type="checkbox"/> Good	<input type="checkbox"/> Poor	<input type="checkbox"/> Breastfeeding	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Additional information including immunization status:						
PHYSICAL EXAMINATION AT ADMISSION						
Respiratory rate (breaths per min)	<30	30-39	40-49	50-59	60 +	Chest in-drawing <input type="checkbox"/> Yes <input type="checkbox"/> No
Temperature	_____°C		Palmar pallor	<input type="checkbox"/> Normal	<input type="checkbox"/> Pale	
Eyes	<input type="checkbox"/> Normal	Signs of infection: <input type="checkbox"/> Yes <input type="checkbox"/> No		Signs of VAD: <input type="checkbox"/> Yes <input type="checkbox"/> No		Signs of dehydration (interpret with caution): <input type="checkbox"/> Yes <input type="checkbox"/> No
Ears	<input type="checkbox"/> Normal	<input type="checkbox"/> Discharge	Mouth	<input type="checkbox"/> Normal	<input type="checkbox"/> Sores	<input type="checkbox"/> Candidiasis
Enlarged lymph nodes	<input type="checkbox"/> None	<input type="checkbox"/> Neck	<input type="checkbox"/> Axilla	<input type="checkbox"/> Groin		
Skin infection	<input type="checkbox"/> None	<input type="checkbox"/> Scabies	<input type="checkbox"/> Ulcers / Abscesses	Others (specify)		
Skin changes	<input type="checkbox"/> None	Dermatosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe			Disability <input type="checkbox"/> Yes <input type="checkbox"/> No	
Laboratory investigations and additional information	HIV status <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Exposed <input type="checkbox"/> Unknown				Others (specify)	
DIAGNOSIS						
TREATMENT GIVEN						
FOLLOW UP VISITS						
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6
MEDICAL HISTORY						
Diarrhoea (Y/N) (If Y, indicate number of days)						
Vomiting (Y/N) (If Y, indicate number of days)						
Fever(Y/N) (If Y, indicate number of days)						
Cough(Y/N) (If Y, indicate number of days)						
Others (specify and indicate number of days)						
PHYSICAL EXAMINATION						
Temperature (°C)						
Respiratory rate (breaths/min)						
Signs of dehydration (Y/N) (interpret with caution)						
Signs of anaemia/Palmar pallor (Y/N)						
Skin changes/lesions (Y/N)						
Other (specify) (#days)						
FOLLOW UP ACTION						
ACTION NEEDED* (Y/N) (see key below)						
Name of examiner (indicate initials)						
OUTCOME (see key on previous page)						
DIAGNOSIS AND TREATMENT GIVEN (IF APPLICABLE). Indicate the date and name of the Health/Nutrition worker:						
ACTION TAKEN DURING HOME VISIT (INCLUDE DATE):						

*Indicate action needed as follows: HV=Home visit, T0=transfer to OTP/SC/ITP or R=referral for medical investigation. If no action is needed, indicate OK=continue treatment.

ANNEX 15

TARGETED SUPPLEMENTARY FEEDING PROGRAM (TSFP) RATION CARD FOR CHILDREN (6-59 MONTHS)

State	County	Health/Nutrition Facility	
Child's Name		Age (months)	
Admission date (dd/mm/yy) ____ / ____ / ____	Reg No	Sex (M/F)	
Caregiver's Name		Payam	
Discharge date (dd/mm/yy) ____ / ____ / ____	Village/Boma		
Discharge MUAC OR WFH/L z-score		Chief/sheik	

VISITS	DATE (DD/MM/YY)	MUAC (CM)	WEIGHT (KG)	HEIGHT/ LENGTH (CM)	WFH/L (Z-SCORE)	TREATMENT GIVEN	#RUSF SACHETS OR CSB++ (KG)	OTHER ITEMS GIVEN	REFERRAL TO OTP OR OTHER	COMMENTS
Admission visit										
Follow up visit 1										
Follow up visit 2										
Follow up visit 3										
Follow up visit 4										
Follow up visit 5										
Follow up visit 6										

ANNEX 16

TARGETED SUPPLEMENTARY FEEDING PROGRAM (TSFP) RATION CARD FOR PREGNANT/LACTATING WOMEN (PLW)

State	County	Health/Nutrition Facility	
Woman's Name			Age (years)
Pregnant/Lactating Status	<input type="checkbox"/> Pregnant <input type="checkbox"/> Lactating	Reg No	Payam
Admission date (dd/mm/yy) _____ / _____ / _____		Village/Boma	
Discharge date (dd/mm/yy) _____ / _____ / _____		Chief/sheik	
Discharge Criteria		<input type="checkbox"/> MUAC \geq 23cm	Infant reached 6 months <input type="checkbox"/>

VISITS	DATE (DD/MM/YY)	MUAC (CM)	TREATMENT GIVEN	CSB++ (KG)	OTHER ITEMS GIVEN	COMMENTS
Admission visit						
Follow up visit 1						
Follow up visit 2						
Follow up visit 3						
Follow up visit 4						
Follow up visit 5						
Follow up visit 6						

ANNEX 17

OPERATIONAL GUIDANCE FOR EXPANDED CRITERIA

What is expanded criteria?

The expanded criteria is a strategy to reduce mortality associated with acute malnutrition by scaling up coverage of treatment services in South Sudan through ensuring early detection, identification and treatment of cases with acute malnutrition until nutritional recovery.

In the expanded criteria both MAM and SAM without medical complications are treated using the same nutritional product (RUTF or Plumpy'nut® /RUSF or Plumpy'sup®). While the use of RUTF has been shown to have better outcomes in the treatment of children with MAM, RUSF, at similar dose of RUTF, has the potential to avert deaths in SAM children when RUTF is not available. Children with severe oedema (+++) and/or other general danger signs and/or medical complications are referred for treatment in SC/ITP.

In addition to the weekly ration of RUTF/RUSF, medication will be provided in accordance with the national protocol where OTP/TSFP services are fully operational.

All efforts will be made by MOH and partners to provide health/nutrition facilities with the required amounts of RUSF and RUTF for the treatment of MAM and SAM, respectively. The expanded criteria should only be applied as an interim measure where either SAM or MAM services are not available.

THE PROCESS TO FOLLOW WHEN APPLYING THE EXPANDED CRITERIA:

Where need to apply the Expanded Criteria is identified:

OPTION 1: WHERE THERE IS AN OUTPATIENT THERAPEUTIC PROGRAM (OTP) BUT NO TARGETED SUPPLEMENTARY FEEDING PROGRAM (TSFP)

Admission Criteria	Children with MUAC < 11.5cm OR grade + or grade ++ oedema OR *WFH/L < -3 z-scores, without medical complications and with appetite	Children with MUAC ≥11.5 - < 12.5cm OR *WFH/L ->3<-2 z-scores, without medical complications and with appetite	Children with grade +++ and/or other general danger signs and /or medical complications or Infants <6 months with SAM				
Ration/nutritional therapy given	As per national protocol: based on weight of the child (see RUTF ration lookup table)	RUTF: 7 sachets/per child/week (1 per day)					
Medical Interventions							
Deworming	WHEN: On 2nd visit If signs of re-infection appear, an anthelmintic drug can be given again after three months.	WHEN: On 2nd visit If signs of re-infection appear, an anthelmintic drug can be given again after three months.	Refer to stabilization center				
	DOSAGE:	DOSAGE:					
		Albendazole		Mebendazole		Albendazole	Mebendazole
	<12 months	DO NOT GIVE		<12 months	DO NOT GIVE		
12-23 months	200 mg	250 mg	12-23 months	200 mg	250 mg		
≥ 2years	400 mg	500 mg	≥ 2years	400 mg	500 mg		

ANNEX 17

Amoxicillin	When: on admission		
	50-100 mg/kg bodyweight/day		
	6-11 months or <10Kg	125mg or 5ml	
	≥12 months or 10-30Kg	250mg or 10ml	
	Delivery: 3 times a day for 5 days		
Others ⁶	Measles vaccination and malarial treatment should be done in line with the national guideline		Measles vaccination and malarial treatment should be done in line with the national guideline
Discharge criteria	<ul style="list-style-type: none"> • MUAC ≥ 11.5 for two consecutive visits • Clinically well and alert • No oedema for two consecutive visits NOTE: 1 week discharge ration is provided		<ul style="list-style-type: none"> • MUAC ≥ 12.5cm for two consecutive visits • Clinically well and alert NOTE: 1 week discharge ration is provided

* Admissions can also be based on Weight-for-height/length (< -3 z-scores) wherever this is being done. The use of MUAC alone is for simplification when the use of WFH/L is not feasible.

- PHCU in-charge will inform PHCC in-charge
- PHCC in-charge inform the CHD
- CHD approves the use of expanded criteria.

Treatment protocol

OPTION 2: WHEN THERE IS TSFP BUT NO OTP

Admission Criteria	Children with MUAC < 11.5cm OR grade + or grade ++ oedema OR *WFH/L < -3 z-scores, without medical complications and with appetite		Children with MUAC ≥11.5 - < 12.5cm OR *WFH/L -≥3 < -2 z-scores, without medical complications and with appetite		Children with grade +++ and/or other general danger signs and /or medical complications or Infants <6 months with SAM	
Ration/ Nutritional therapy given	RUSF: 14 sachets/per child/week (2 per day)		As per national TSFP protocol : 1 sachet per day		Refer to stabilization center, or nearest pediatric ward	
Routine Medications						
Deworming	WHEN: On 2nd visit If signs of re-infection appear, an anthelmintic drug can be given again after three months.		WHEN: On 2nd visit If signs of re-infection appear, an anthelmintic drug can be given again after three months.			
		Albendazole	Mebendazole			Albendazole
	<12 months	DO NOT GIVE		<12 months	DO NOT GIVE	
12-23 months	200 mg	250 mg	12-23 months	200 mg	250 mg	
≥ 2 years	400 mg	500 mg	≥ 2 years	400 mg	500 mg	
Discharge criteria	<ul style="list-style-type: none"> • MUAC ≥ 11.5 for two consecutive visits • Clinically well and alert • No oedema for two consecutive visits NOTE: 1 week discharge ration is provided		<ul style="list-style-type: none"> • MUAC ≥ 12.5cm for two consecutive visits • Clinically well and alert NOTE: 1 week discharge ration is provided			

ANNEX 17

OPTION 3: WHEN THERE IS NO OTP OR TSFP (NO IMPLEMENTING PARTNERS)

Admission Criteria	Children < 11.5cm or grade + or grade ++ oedema and without medical complications	Children 11.5cm - < 12.5cm without medical complications	Grade +++ oedema and/or children with other medical complications Infants <6 months with SAM
RUTF ration	RUTF/RUSF: 14 sachets/per child/week (2 per day)	RUTF/RUSF: 7 sachets/per child/week (1 per day)	
Systematic treatment	None (until CMAM services are set up and implemented as per national protocols)	None (until CMAM services are set-up and implemented as per national protocols)	Refer to stabilization center, or nearest pediatric ward
Discharge criteria	MUAC \geq 12.5cm	MUAC \geq 12.5cm	

Note: During rapid response mechanism (RRM) missions, the therapeutic rations is given for at least 4 weeks to the beneficiaries.

ADMISSION AND FOLLOW UP

At admission and during follow up visits the following are done:

- Appetite test (for SAM cases),
- Anthropometry measurements: MUAC or WFH/L is monitored
- Provision of routine medications and RUTF/RUSF as indicated above
- Health/nutrition education and counselling

Weekly or biweekly follow up is recommended for all children enrolled in the program.

Locations

The locations for the application of the expanded criteria should be based on the 10 priority locations, which were selected by the CHD/SMOH/MOH in consultation with partners. Prior discussion should be held between nutrition cluster and pipeline managers, before implementing the expanded criteria in the identified locations.

The approach should be used in both static and mobile sites in the identified priority locations.

In locations where there are no partners on the ground, the RRM mission would provide immediate assistance using the third option. Efforts will be made to identify local NGOs and provide training to ensure continuity of services.

Monitoring and reporting**Treatment of MAM children with RUTF**

With the expanded criteria, all admissions of children MUAC \geq 11.5cm <12.5cm or WFH/L \geq -3<-2 z-scores, with appetite and without medical complications will be registered as special MAM cases. All children should be provided treatment and ration cards that note all the anthropometric indices, RUTF, and routine medications provided on admission and during the follow up. Program performance will be assessed using the standard MAM indicators (cure rate, defaulter rate, death rate) used for monitoring TSFP performance.

Treatment of SAM children with RUSF

With the expanded criteria, all admissions of children < 11.5cm or Oedema + or ++ will be registered as SAM cases in a separate register from the MAM cases. All children should be provided with treatment and ration cards noting all the anthropometric indices, RUSF and routines medications provided on admission and during

ANNEX 17

the follow up. Program performance will be assessed using the standard SAM indicators (cure rate, defaulter rate, death rate) used for monitoring OTP performance.

Exit strategy

In facilities where OTP is present, but no TSFP and vice-versa; measures should be taken for each facility to implement services for management of both SAM and MAM within a period 2 months of applying the expanded criteria. The exit strategy will comprise of the following steps:

1. Identification of a suitable Implementing Partner

In locations where partners are present, discussions are held with CHD and SMOH then the final decision is communicated to the MOH, Department of Nutrition. The discussions should include the type of nutrition programme to be established, existing capacity including availability of basic requirements for setting up a nutrition programme, supplies and equipment needs etc.

In locations where the existing capacity (CHD and SMOH) is inadequate and there are no partners present, MOH Department of Nutrition, SMOH and the relevant designated agencies will identify a suitable partner for implementing services for treatment of both SAM and MAM.

2. Health facility physical assessment

The health facilities should be assessed for their existing capacity to implement services to manage both SAM and MAM. This will involve a detailed evaluation of the basic requirements for establishing the nutrition programme, and identifying existing gaps.

3. Capacity building

This will be based on the training needs of staff as determined by the facility physical assessment .

4. Requisition of basic nutrition supplies, equipment and other materials based on need

5. Establishment of OTP/TSFP



Once supplies are received, facilities should immediately start the relevant programme. Depending on context, facilities that require technical support to kick-start their programme, should be noted and appropriate action taken.

In locations where a new partner is identified, all cases already enrolled under expanded criteria, and the registers, are transferred to the partner.

Note: The expanded criteria should be applied for a maximum of TWO months. Within which, both MOH and partner supported health/nutrition facilities should introduce OTP/TSFP for standard management of acute malnutrition as per national protocols.

ANNEX 18

KEY MESSAGES FOR MOTHERS/ CAREGIVERS OF CHILDREN/PLW IN TSFP ON USE AND STORAGE OF RATIONS

 <p>READY TO USE SUPPLEMENTARY FOOD</p>	 <p>SUPER CEREAL PLUS OR CORN SOY BLEND (CSB++)</p>
HOW TO GIVE RUSF	HOW TO GIVE CSB++
<p>RUSF (or local name) is a special food and medicine for moderately acute malnourished children only.</p> <p>It should not be shared or sold.</p>	<p>CSB++ (or local name) is a special food providing nutrients and energy for malnourished children and PLW.</p> <p>This food is for children/PLW and should not be shared.</p>
<p>Your child should eat ONE sachet a day.</p>	<p>A child or PLW should eat the CSB++ as cooked porridge twice a day</p>
<p>If breastfeeding - breastfeed your child before giving RUSF.</p>	<p>If breastfeeding - breastfeed your child before giving CSB++ porridge.</p>
<p>RUSF should be given as a snack between other meals. Give other foods in addition to the RUSF including milk, meat, fish, fruit, and vegetables. Add, oil to a child's food.</p>	<p>Other foods should also be given in addition to the CSB++ including milk, meat, fish, groundnut paste, fruits and vegetables,</p>
<p>Small children should be fed 5 times a day in small amounts.</p>	<p>Seasoning, milk, fruits, vegetables and groundnuts may be added to the porridge to add taste and nutritional value.</p>
<p>Always offer plenty safe water to drink while eating RUSF as it can make children thirsty.</p>	<p>Small children should be fed 5 times a day in small amounts.</p>
<p>When a child has diarrhoea, never stop feeding. Continue to breastfeed. Give extra food and extra safe water.</p>	<p>When a child has diarrhoea, never stop feeding. Continue to breastfeed. Give extra food and extra safe water.</p> <p>Give ORS as required.</p>
<p>If your child has any medical complications, take the child to the nearest health facility.</p>	<p>If your child has any medical complications, take the child to the nearest health facility.</p>
<p>Do not give RUSF to infants < 6 months of age</p>	<p>Do not give CSB++ to infants < 6 months of age</p>
USE AT HOME	PREPARATION OF PORRIDGE AT HOME
<ul style="list-style-type: none"> • Wash your child's hands with soap and clean running water before giving him/her food. <ul style="list-style-type: none"> ◦ RUSF should be eaten directly from the sachet. ◦ RUSF should not be cooked or mixed with water or other foods. 	<ul style="list-style-type: none"> • Wash your hands with soap and clean running water before preparing porridge. • Water for the porridge should be clean and safe before cooking. • For thick porridge mix 1 part of CSB++ to 2 parts water. • For thin porridge mix 1 part of CSB++ to 3 parts water. • Mix the CSB++ with a small amount of water to make a paste in the cooking pot. • Add the rest of the water. • Bring to boil and cook for 5-10 minutes. • Use a separate clean plate for the child. • Use soap to wash your child's hands before eating • Do not keep cooked porridge for more than 3 hours
STORAGE AT HOME	STORAGE AT HOME
<ul style="list-style-type: none"> • Keep sachets in a clean, cool and dry place, above the floor, and out of reach of children. • Sachets can be kept in a sealed container, on a high shelf, clean cupboard, or in a basket hung above the floor. • Opened sachets should be rolled up, kept covered and dry. 	<ul style="list-style-type: none"> • Keep packets of CSB++ in a clean, cool and dry place above the floor • CSB++ can be stored on a shelf, clean cupboard or on a wooden platform above the floor to prevent weevil and rodent infestation and contamination

ANNEX 19

RECIPES FOR DIFFERENT TYPES OF LOCALLY PREPARED HIGH ENERGY AND NUTRIENT DENSE MEALS

1. Recipe for high energy porridge

INGREDIENTS

- 200g of sorghum or maize flour
- 3 cups of water (200ml each)
- 1 cup of fresh goat's or cow's milk (200ml)
- 2 table spoonful of groundnut or sesame paste
- 2 table spoonful of vegetable oil
- 2 table spoonful of sugar
- A finger pinch of iodized salt

PREPARATION METHOD

1. Wash your hands with soap and clean (running) water;
2. Measure and pour 2 cups (200ml each) of clean water into a clean sauce pan;
3. Measure and pour 200g of sorghum or maize flour into a clean bowl/plate;
4. Add 1 cup (200ml) of cold water to the bowl/plate of flour and mix to form a paste;
5. Add the paste into boiling water, and continue stirring to form a gruel. Cook for at least 10 minutes;
6. Add 1 cup (200ml) of fresh goat's or cow's milk;
7. During the last 2 minutes, add the 2 table spoonful of groundnut/sesames paste, sugar, oil and a pinch of salt. Stir until well mixed;
8. Remove it from fire, cool slightly and serve;

Note: Any cereal flour can be used to make HEP.

2. Recipe for pasted cowpeas leaves dish

INGREDIENTS

- Water
- Cowpeas leaves
- 4 pieces of okra
- 2 pieces of tomatoes
- Ground nut or simsim Paste
- Iodized salt
- 4 pieces of calcium carbonate (magadi salt) the size of papaya seeds

PREPARATION METHOD

1. Wash your hands with soap and clean (running) water;
2. Wash the cowpeas leaves with plenty of clean (running) water to remove the soil particles and any other dirty substances;
3. Allow time for water to drip off, DO NOT squeeze the vegetables;
4. Set fire and put clean water in a saucepan/pot and put it on the fire, bringing it to boil (until big bubbles are formed);
5. Chop/cut the cow pea leaves and the Okra and pour it into the saucepan of boiling water;
6. Add 4 pieces of bicarbonate salt (each the size of papaya seeds). Add salt to your taste and allow to boil for 5-10 minutes;
7. Add ground nut or simsim paste and continue cooking for another 5 minutes;
8. Remove from fire and serve.

Note: Any green vegetables can be used in place of cowpea leaves.

ANNEX 20

ACTION PROTOCOLS FOR SFP

A: Action protocol for TSFP

LOOK FOR THE FOLLOWING SIGNS	ACTION	WHAT TO DO
Presence of bilateral pitting oedema +, ++ OR Deterioration in anthropometric criteria used for admission (MUAC to < 11.5cm or WFH/L to <-3 z-score)	Refer to OTP	Complete a referral slip to OTP. Tell the mother/caregiver where and when to go to OTP.
Deterioration to SAM with bilateral pitting oedema +++ or with medical complications	Refer to inpatient care (SC/ITP)	Complete a referral slip to SC/ITP. Tell the mother/caregiver where to go and fast track admission to SC/ITP.
Medical complications or danger signs requiring inpatient admission	Refer to health facility or hospital with inpatient care services	Complete a referral slip and fast track child for admission to inpatient care (paediatric /children's ward).
Weight loss for 2 consecutive visits	Home visit	Arrange for HHP to visit the home to investigate reasons.
Weight loss for 3 consecutive visits or no weight gain for 4 consecutive visits	Refer for medical investigation	Complete a referral slip and refer the child to a health facility to determine and manage the possible underlying medical reasons for failure to gain weight.
Absent (misses one visit) or default (absent two consecutive visits)	Home visit	Arrange for HHP to visit the home to investigate reasons for absence/default and encourage return.

B: Action protocol for BSFP for children 6-59M based on nutritional status

CRITERIA	NUTRITIONAL STATUS	ACTION
MUAC ≥ 12.5cm	Child is not malnourished	<ul style="list-style-type: none"> Provide ration Provide prevention package if available Advise mother/caregiver to come back in one month
MUAC ≥ 11.5cm - < 12.5cm	Child has moderate acute malnutrition (MAM)	<ul style="list-style-type: none"> Provide ration Provide referral slip to TSFP and advise mother/caregiver where and when to take the child Provide the prevention package and record this on referral slip Advise mother/caregiver to come back in one month
MUAC < 11.5cm /OR Bilateral pitting oedema	Child has severe acute malnutrition (SAM)	<ul style="list-style-type: none"> Provide ration Provide referral slip to OTP and advise mother/caregiver where and when to take the child for further assessment and appropriate management Provide the prevention package and record this on referral slip

C: Action protocol for BSFP for PLW based on nutritional status

CRITERIA	NUTRITIONAL STATUS	ACTION
MUAC \geq 23.0cm	PLW is not acutely malnourished	<ul style="list-style-type: none"> · Provide the ration · Provide the prevention package if available · Advise PLW to come back in one month
MUAC $<$ 23.0cm	PLW is acutely malnourished	<ul style="list-style-type: none"> · Provide the ration · Provide referral slip to TSFP and advise mother where and when to go · Provide prevention package and record this on the referral slip · Advise PLW to come back in one month
Bilateral pitting oedema	PLW suspected to be acutely malnourished	<ul style="list-style-type: none"> · Provide the ration · Refer to the nearest health facility for further assessment · Provide the prevention package and record this on the referral slip
INFANT $<$ 6 MONTHS: <ul style="list-style-type: none"> · Visibly wasted/and or bilateral pitting oedema or · Is not breastfeeding effectively or · Is losing weight 	Infant has SAM	<ul style="list-style-type: none"> · Provide referral slip to the nearest health facility · Advise mother/caregiver where and when to take the child for further assessment · Ensure mother is registered in BSFP for PLW

ANNEX 21

BSFP RATION CARD FOR CHILDREN 6-59 MONTHS

State	County:	Name of Health/Nutrition Facility	
Child's name			Age (months)
Admission date (dd/mm/yy) _____ / _____ / _____			Payam
Caregiver's name			Village/Boma
Chief/sheik			

	DATE (DD/MM/ YYYY)	MUAC (CM)	RATION (KG)	SOAP/ LLITN/ OTHER PREVENTION ITEMS GIVEN	REFERRAL TO OTP OR TSFP
Round 1					
Round 2					
Round 3					
Round 4					
Round 5					
Round 6					

ANNEX 22

SCREENING RECORD SHEET: CHILDREN 6-59 MONTHS

For use on admission and at every monthly distribution

NAME OF PARTNER	
NAME OF STATE	MONTH
NAME OF COUNTY	DISTRIBUTION ROUND NO.
NAME OF PAYAM	DATE
NAME OF VILLAGE/BOMA	BSFP SITE NAME

NAMES OF PERSONS FILLING IN SHEET	
-----------------------------------	--

	MALE	FEMALE
MUAC \geq 12.5m	III	
TOTAL		
MUAC \geq 11.5cm - $<$ 12.5cm		
TOTAL		
MUAC $<$ 11.5cm		
TOTAL		
OEDEMA		
TOTAL		

ANNEX 23

BSFP RATION CARD FOR PREGNANT AND LACTATING MOTHERS WITH INFANTS LESS THAN 6 MONTHS (PLW)

State	County:	Name of Health/Nutrition Facility	
Pregnant and lactating status		Pregnant <input type="checkbox"/>	Lactating <input type="checkbox"/>
PLW's name		Age (years)	
		Payam	
Admission date (dd/mm/yy) _____ / _____ / _____		Village/Boma	
Discharge date (dd/mm/yy) _____ / _____ / _____		Chief/sheik	

	DATE (DD/MM/ YYYY)	MUAC (CM)	RATION (KG)	SOAP/ LLITN/ OTHER PREVENTION ITEMS GIVEN	REFERRAL TO ANC/ TSFP/ PMTCT
Round 1					
Round 2					
Round 3					
Round 4					
Round 5					
Round 6					

ANNEX 24

BSFP SCREENING RECORD SHEET FOR PLW

For use on admission and at every monthly distribution

NAME OF PARTNER	
NAME OF STATE	MONTH
NAME OF COUNTY	DISTRIBUTION ROUND NO.
NAME OF PAYAM	DATE
NAME OF VILLAGE/BOMA	BSFP SITE NAME

NAMES OF PERSONS FILLING IN SHEET	
-----------------------------------	--

Pregnant women with MUAC \geq 23.0cm	///
TOTAL	

Pregnant women with MUAC < 23.0cm	///
TOTAL	

Lactating women with MUAC \geq 23.0cm	///
TOTAL	

Lactating women with MUAC < 23.0cm	///
TOTAL	

Infants < 6 months with SAM	///
TOTAL	

ANNEX 25

DECISION-MAKING FRAMEWORK FOR OPENING A NUTRITION PROGRAMME³⁰

FINDING	ACTION REQUIRED
Malnutrition rate (GAM) \geq 15% or 10-14% plus aggravating factors	Critical situation: <ul style="list-style-type: none"> General rations (unless situation is limited to vulnerable groups) Blanket supplementary feeding for all members of vulnerable groups, especially children, pregnant and lactating women Therapeutic feeding programme for severely malnourished individuals
Malnutrition rate (GAM) 10-14% or 5-9% plus aggravating factors	Serious situation (alert): <ul style="list-style-type: none"> No general rations, but Targeted supplementary feeding for individuals identified as malnourished in vulnerable groups Therapeutic feeding programme for severely malnourished individuals
Malnutrition rate (GAM) under 5-10% with no aggravating factors Food availability at household level < 2100 kcal per person per day	Poor (alert) situation: <ul style="list-style-type: none"> Improve general rations until local food availability and access can be made adequate
Malnutrition rate (GAM) under 5% with no aggravating factors	Acceptable situation: <ul style="list-style-type: none"> No need for population interventions Attention to malnourished individuals through regular community services Continuous monitoring of the nutrition situation

Aggravating factors can include:

- Worsening of the nutritional situation;
- Food availability at household level is less than the mean energy requirement of 2100 kcal per person each day;
- The general food distribution (GFD) is below mean energy, protein and fat requirements;
- Crude mortality rate more than 1 per 10,000 per day;
- Epidemic of measles or whooping cough;
- High prevalence of respiratory or diarrhoeal diseases;
- Inadequate safe water supplies and sanitation;
- Inadequate shelter;
- War and conflict, civil strife, migration and displacement.

ANNEX 26

GUIDANCE ON CRITERIA FOR CLOSING SFP

BLANKET SFP	TARGETED SFPS
<ul style="list-style-type: none"> General food distribution (GFD) is adequate and is meeting planned minimum nutritional requirements. The GFD should also have a specific food that meets the minimum nutritional requirements for young children. Prevalence of acute malnutrition is <15% without aggravating factors. Prevalence of acute malnutrition is <10% without aggravating factors. Disease control measures are effective. 	<ul style="list-style-type: none"> General food distribution (GFD) is adequate and meeting planned minimum nutritional requirements. The GFD should also have a specific food that meets the minimum nutritional requirements for young children Prevalence of acute malnutrition is <5% without aggravating factors. Control measures for infectious diseases are effective. Deterioration in nutritional situation is not anticipated, i.e. seasonal deterioration.

Source: Adapted from UNHCR (2011). *Guidelines of Selective Feeding: The Management of Malnutrition in Emergencies*.

ANNEX 27

SUGAR WATER PROTOCOL

Children with SAM can develop hypoglycaemia (low blood sugar <3mmol/l or <54mg/dl). This could be due to inadequate intake of food as a result of poor appetite, infrequent feeding, traveling long distance without food, waiting too long for admission, or due to excessive vomiting. Hypoglycaemia should be prevented or treated promptly and appropriately to prevent deaths, especially in critically sick children with SAM.

**SUGAR WATER 10% DILUTION
(INGREDIENTS):**

WATER	SUGAR	
100ml	10g	2 heaped teaspoons
200ml (average cup)	20g	4 heaped teaspoons
500ml (1 small drinking water bottle)	50g	10 heaped teaspoons
1 litre (2 small drinking water bottles)	100g	20 heaped teaspoons

Preparation:

- Measure the required amount of safe drinking water (slightly warm if possible to help dilution)
- Add the required amount of sugar to safe drinking water and shake or stir it vigorously.

How to give:

Give 50ml of 10% sugar water to:

- All children with SAM who have travelled for long distances without feeding. This should be done immediately on arrival at the health/nutrition facility;
- All children with SAM who have waited a long time for attention;
- Children with SAM who have hypothermia (low body temperature [$<35.0^{\circ}\text{C}$ axillary or $<35.5^{\circ}\text{C}$ rectal]). A hypothermic child is most probably also hypoglycaemic.
- All children with SAM refusing ready-to-use therapeutic food (RUTF) or being referred to inpatient care.

Note: If possible, especially when it is very hot, give sugar water to all children awaiting treatment in the OTP.

ANNEX 28

APPETITE TEST FOR RUTF

Appetite test for RUTF forms one of the most important criteria for deciding whether a patient with SAM in absence of severe medical complications, should be treated as an outpatient or inpatient.

The pathophysiological responses to nutrient depletion in children with SAM are such that the hepatic (liver) and metabolic system are impaired and dysfunctional, leading to poor appetite. In addition, children with a significant infection also lose appetite, especially in the acute phase. This puts children with SAM and at a higher risk of death.

- Conduct the appetite test for RUTF at admission and on each follow-up visit to OTP.
- Conduct the appetite test in a quiet separate area.
- Explain the purpose and procedure of the appetite test to the caregiver.
- Advise the caregiver to:
 - Wash hands with soap and clean running water before giving the RUTF
 - Wash the hands and face of the child

- Sit with the child on the lap and gently offer the RUTF
- Encourage the child to eat the RUTF without force-feeding
- Offer plenty of safe drinking water to child when eating the RUTF
- Observe the child eating the RUTF
- Decide if he/she passes or fails the test
 - The child passes if he/she completes the RUTF test amount in 30 minutes
 - The child fails if he/she fails to complete the RUTF test amount in 30 minutes.

Quantities of RUTF for Appetite Test:

WEIGHT (KG)	PASS APPETITE TEST	FAIL APPETITE TEST
Less than 4kg	Eats at least $\frac{1}{4}$ sachet	Eats less than $\frac{1}{4}$ sachet
4kg and above	Eats at least $\frac{1}{3}$ sachet	Eats less than $\frac{1}{3}$ sachet

Notes: If necessary, arrange a quiet corner where the child and caregiver can take their time to get accustomed to eat the RUTF. A child who fails the appetite test should be referred to SC for stabilization

ANNEX 29

LOOK UP TABLE FOR AMOUNTS OF RUTF
(92G SACHETS) TO GIVE TO A CHILD

WEIGHT (KG)	SACHETS/DAY	SACHETS/WEEK	SACHETS/2 WEEKS
3.0 - 3.9	1.5	11	22
4.0 - 4.9	2.0	14	28
5.0 - 6.9	2.5	18	35
7.0 - 8.4	3.0	21	42
8.5 - 9.4	3.5	25	49
9.5 - 10.4	4.0	28	56
10.5 - 11.9	4.5	32	64
≥12.0	5	35	70

ANNEX 30

KEY MESSAGES UPON ADMISSION TO OTP

- Ready to use therapeutic food (RUTF) is a food and medicine for severely acute malnourished children only. Do not share or sell it.
- Sick children often don't like to eat. Give small regular meals of RUTF and encourage the child to eat often (if possible, 8 meals a day). Your child should have _____ packets a day. (see *Annex 29*)
- If your child is still breastfeeding, continue to breastfeed. Offer breast milk first before every RUTF feed.
- RUTF is the only food acutely malnourished children need to recover during their time in OTP.
- Always give RUTF before other foods, such as porridge (use local name).
- Always offer the child plenty of safe water to drink while eating RUTF. Children will need more water than normal.
- Wash the child's hands and face with soap and clean running water before feeding.
- Keep food clean and covered.
- Severely acute malnourished children get cold quickly. Always keep the child covered and warm.
- For children with diarrhoea, continue feeding. Give them extra food and water.
- Return to the health facility whenever your child's condition deteriorates or if he/she is not eating sufficiently.

Note: Ask the caregiver to repeat the messages to be sure they have been correctly understood.

ANNEX 31

OUTPATIENT THERAPEUTIC PROGRAMME (OTP) TREATMENT CARD

CHILDREN (6-59 MONTHS)

State	County	Name of Health/Nutrition Facility	
Child's Name		Registration Number	
Date of Admission (dd/mm/yy) ____ / ____ / ____	Sex (M/F)	Age (months)	
Mother's/Caregiver's Name		Payam	
Chief/Sheik		Village/Boma	

FAMILY HISTORY

Birth order: _____	Is it 5th child or more? <input type="checkbox"/> Yes <input type="checkbox"/> No	Twin: <input type="checkbox"/> Yes <input type="checkbox"/> No
Father alive <input type="checkbox"/> Yes <input type="checkbox"/> No	Mother Alive <input type="checkbox"/> Yes <input type="checkbox"/> No	
Total number of children under 5 in the household: _____		
IDP <input type="checkbox"/>	Refugee <input type="checkbox"/>	Host community <input type="checkbox"/>

ADMISSION AND DISCHARGE INFORMATION

Admission type (tick)	Referred from community	Referred from SC/ITP	Referred from other OTP	Referred from TSFP	Other (specify in the remarks below)	New admission	Readmission/relapse?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

ADMISSION INFORMATION	
Bilateral pitting oedema	<input type="checkbox"/> Yes <input type="checkbox"/> No
MUAC (cm)	Admission criteria
Weight (Kg)	
Height/length (cm)	
WFH (z-score)	
	<input type="checkbox"/> Oedema +, ++ <input type="checkbox"/> MUAC <11.5cm <input type="checkbox"/> WFH/L <-3z-score <input type="checkbox"/> Other (specify): _____

DISCHARGE INFORMATION (SEE KEY BELOW)
Date (mm/dd/yy)
MUAC (cm)
Weight (Kg)
Height/length (cm)
WFH/L (z-score)
Discharge outcome (see key below)

KEY

A - Absent (misses one visit)	D - Died (dies while registered in OTP)	DEF - Default (absent for two or more consecutive visits)	TO - Transfer out/ referred out (those referred to SC/ITP or other OTP or for medical care at a health facility)	NR - Non-respondent (did not reach discharge criteria after 3 months in OTP)	C - Cured (MUAC \geq 11.5cm or WFH/L \geq -3z-score for 2 consecutive visits and No bilateral pitting oedema)
--------------------------------------	--	--	---	---	--

REMARKS

MEDICAL HISTORY AT ADMISSION													
Diarrhoea (3 or more loose stools per day) <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Watery diarrhoea <input type="checkbox"/> Bloody diarrhoea													
Vomiting <input type="checkbox"/> Yes <input type="checkbox"/> No							Passing urine <input type="checkbox"/> Yes <input type="checkbox"/> No						
Cough <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, cough lasting 2 weeks or more <input type="checkbox"/> Yes <input type="checkbox"/> No History of contact with a person with TB <input type="checkbox"/> Yes <input type="checkbox"/> No													
Appetite: <input type="checkbox"/> Good <input type="checkbox"/> Poor							<input type="checkbox"/> Breastfeeding <input type="checkbox"/> Yes <input type="checkbox"/> No						
Additional information including immunization status:													
PHYSICAL EXAMINATION AT ADMISSION													
Respiratory rate (breaths per min)		<30		30-39		40-49		50-59		60 +		Chest in-drawing: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Temperature		_____ °C		Palmar pallor: <input type="checkbox"/> Normal <input type="checkbox"/> Pale									
Eyes		<input type="checkbox"/> Normal <input type="checkbox"/> Sunken		Signs of infection: <input type="checkbox"/> Yes <input type="checkbox"/> No		Signs of VAD: <input type="checkbox"/> Yes <input type="checkbox"/> No		Signs of dehydration (interpret with caution): <input type="checkbox"/> Yes <input type="checkbox"/> No					
Ears		<input type="checkbox"/> Normal <input type="checkbox"/> Discharge		Mouth: <input type="checkbox"/> Normal <input type="checkbox"/> Sores <input type="checkbox"/> Candidiasis									
Enlarged lymph nodes		<input type="checkbox"/> None <input type="checkbox"/> Neck		<input type="checkbox"/> Axilla <input type="checkbox"/> Groin									
Skin infection		<input type="checkbox"/> None <input type="checkbox"/> Scabies		<input type="checkbox"/> Ulcers / Abscesses		Others (specify):							
Skin changes		<input type="checkbox"/> None		Dermatosis: <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		Disability: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Laboratory investigations and additional information		HIV status: <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Exposed <input type="checkbox"/> Unknown		Others (specify):									
DIAGNOSIS AND TREATMENT GIVEN:													
FOLLOW UP VISITS													
		1	2	3	4	5	6	7	8	9	10	11	12
MEDICAL HISTORY													
Date													
Diarrhoea (#days)													
Vomiting (#days)													
Fever (#days)													
Cough (#days)													
Other (specify) (#days)													
PHYSICAL EXAMINATION													
Temperature (0C)													
Respiratory rate (breaths/min)													
Signs of dehydration (Y/N) (interpret with caution)													
Signs of anaemia/Palmar pallor (Y/N)													
Skin changes/lesions (Y/N)													
Other (specify) (#days)													
APPETITE TEST FOR RUTF													
Passed = Y / Failed = N													
RUTF issue (# of sachets)													
FOLLOW UP ACTION													
ACTION NEEDED* (Y/N) (see below)													
Name of examiner (initials)													
DIAGNOSIS AND TREATMENT GIVEN (IF APPLICABLE). Indicate the date and name of the health/nutrition worker:													
ACTION TAKEN DURING HOME VISIT (INCLUDE DATE)													

*Indicate action needed as follows: HV=Home visit, TO=transfer to SC/ITP or other OTP; R=referral for medical investigation. If no action is needed, indicate OK= continue treatment

ANNEX 32

OUTPATIENT THERAPEUTIC PROGRAMME (OTP) RATION CARD

State	County	Name of Health/Nutrition Facility	
Child's Name		Registration Number	
Mother's/Caregiver's Name		Sex (M/F)	
Village		Age (months)	
Date of Admission(dd/mm/yy): _____ / _____ / _____		Payam	
Discharge date (dd/mm/yy): _____ / _____ / _____		Village/Boma	

VISITS	DATE	OEDEMA	MUAC (CM)	WEIGHT (KG)	HEIGHT/ LENGTH (CM)	WFH/L Z-SCORE	#RUTF
Admission visit							
Follow up visit 1							
Follow up visit 2							
Follow up visit 3							
Follow up visit 4							
Follow up visit 5							
Follow up visit 6							
Follow up visit 7							
Follow up visit 8							
Follow up visit 9							
Follow up visit10							
Follow up visit 11							
Follow up visit12							

COMMENTS

ANNEX 33

RUTF SPECIFICATIONS³¹**PLUMPY'NUT®**

Plumpy'Nut® is a commercial type of RUTF. Plumpy'Nut® is a ready-to-eat therapeutic spread presented in individual sachets. It is a groundnut paste composed of vegetable fat, peanut butter, skimmed milk powder, lactoserum, maltodextrin, sugar, and a mineral and vitamin complex.

Plumpy'Nut® is designed to be used:

In dietary treatment of severe malnutrition: The nutritional value of Plumpy'Nut® is similar to that of NUTRISET® therapeutic milk F100. It is recommended to use Plumpy'Nut® in Phase 2 of the dietary treatment of severe malnutrition. The recommended dose varies up to 200 Kcal/body weight/day. Plumpy'Nut® is available in individual sachets of 500 kcal (92 g) and is ready-to-eat (It can be used simply by opening the sachet and eating it no cooking or diluting is necessary).

INSTRUCTIONS FOR USE

Safe drinking water must be made available to children while they consume ready-to-eat therapeutic spread. The product should be given only to children who can express their thirst.

RECOMMENDATIONS FOR USE

It is recommended to use this product in the rehabilitation phase in the dietetic management of SAM. In the stabilisation phase, a milk-based diet is used (F75). However, Plumpy'nut® is contraindicated for children who are allergic to cow milk, proteins, or peanuts, and for people with asthma due to risk of allergic response.

STORAGE AND PACKAGING

Plumpy'Nut® has a shelf life of 24 months from manufacturing date and should be stored in a cool and dry place. It comes in a 92g packet that contains 500 kcal. A carton (around 15.1 kg) contains 150 packets.

In addition to good nutritional quality (protein, energy and micronutrients), RUTF should have the following attributes:

Taste and texture suitable for young children

- No need for additional processing such as cooking before consumption
- Resistant to contamination by microorganisms and a long shelf life without sophisticated packaging
- Ingredients that are low cost and readily available in developing countries

SAFETY

The food must be kept free from objectionable matter. It must not contain any substance originating from microorganisms or any other poisonous or deleterious substances like anti-

nutritional factors, heavy metals, or pesticides in amounts that might represent a hazard to health of severely malnourished patients.

The product should comply with the International Code of Hygienic Practice for Foods for Infants and Children of the Codex Alimentarius Standard CAC/RCP 21-1979. All added mineral and vitamins should be on the Advisory List of Mineral Salts and Vitamin compounds for Use in Foods for Infants and Children of the Codex Alimentarius Standard CAC/GL 10-1979. The added minerals should be water-soluble and should not form insoluble components when mixed together.

RUTF SAFETY SPECIFICATIONS

Aflatoxin level	5 ppb maximum
Microorganism content	10,000/g maximum
Coliform test	negative in 1 g
Clostridium perfringens	negative in 1 g
Yeasts	maximum 10 in 1 g
Moulds	maximum 50 in 1 g
Pathogenic staphylococci	negative in 1 g
Salmonella	negative in 125 g
Listeria	negative in 25 g

NUTRITIONAL VALUE:

92G PACKET	100G PACKET
MACRO NUTRIENTS	
Energy (500kcal*), Proteins (12.5g), Lipids (32.86g)	Energy (545kcal*), Proteins (13.6g), Lipids (35.7g)
MICRONUTRIENTS	
Vitamins: Vit A (840 µg), vit D (15 µg), vit E (18.4 mg), vit C (49 mg), vit B1 (0.55 mg), vit B2 (1.66 mg), vit B6 (0.55 mg), Vit B12 (1.7 µg), vit K (19.3 µg), biotin (60µg), folic acid (193 µg), pantothenic acid (2.85 mg), niacin (4.88 mg)	Vitamins: Vit A (910 µg), vit D (16 µg), vit E (20 mg), vit C (53 mg), vit B1 (0.6 mg), vit B2 (1.8 mg), vit B6 (0.6 mg), Vit B12 (1.8 µg), vit K (21 µg), biotin (65µg), folic acid (210 µg), pantothenic acid (3.1 mg), niacin (5.3 mg).
Minerals: Calcium (276 mg), phosphorus (276mg), potassium (1,022 mg), magnesium (84.6mg), zinc (12.9 mg), copper (1.6 mg), iron (10.6 mg), iodine (92 µg), sodium (< 267 mg), selenium (27.6 µg).	Minerals: Calcium (320 mg), phosphorus (394mg), potassium (1,111 mg), magnesium (92mg), zinc (14 mg), copper (1.78 mg), iron (11.53 mg), iodine (110 µg), sodium (< 290 mg), selenium (30 µg).

*10% of the kilocalories are from proteins and 59% from lipids

ANNEX 34

ACTION PROTOCOL FOR OTP

LOOK FOR THE FOLLOWING SIGNS	ACTION TO TAKE		
	REFERRAL TO INPATIENT CARE /STABILIZATION CENTRE (SC)	HOME VISIT	
GENERAL CONDITION	Deteriorating	Child is absent or defaulting	
BILATERAL PITTING OEDEMA	Grade +++		
	Increase in bilateral pitting oedema		
	Bilateral pitting oedema not reducing by week 3		
ANOREXIA *	Poor appetite or unable to eat- Failed appetite test		Child is not gaining weight or losing weight on follow-up visit
VOMITING *	Intractable vomiting (persistent repeated vomiting that is hard to control)		
CONVULSIONS *	Ask mother if the child had convulsions during the previous visit		Child is not losing oedema
LETHARGY, NOT ALERT *	Child is weak, child is difficult to awake		
UNCONSCIOUSNESS *	Child does not respond to painful stimuli		
	A clinical sign in a child with SAM is eye-lid retraction: child sleeps with eyes slightly open.		
HYPOGLYCAEMIA	Low level of blood glucose < 3 mmol/l, < 54 mg/dl		Child has returned from inpatient care or refuses referral to inpatient care
DEHYDRATION	Severe dehydration based primarily on recent history of diarrhoea, vomiting, fever, or sweating, and on recent appearance of clinical signs of dehydration as reported by the mother/caregiver		
HIGH FEVER	Axillary temperature $\geq 38.5^{\circ}\text{C}$, rectal temperature $\geq 39^{\circ}\text{C}$ taking into consideration the ambient temperature		
HYPOTHERMIA	Axillary temperature $< 35^{\circ}\text{C}$, rectal temperature $< 35.5^{\circ}\text{C}$ taking into consideration the ambient temperature		
RESPIRATION RATE	≥ 60 respirations/minute for children under 2 months		
	≥ 50 respirations/minute from 2-12 months		
	≥ 40 respirations/minute from 1-5 years		
	≥ 30 respirations/minute for children over 5 years		
	Any chest in-drawing		
ANAEMIA	Palmer pallor or unusual paleness of skin		
SKIN LESION	Broken skin, fissures, flaking of skin		
SUPERFICIAL INFECTION	Any infection requiring intramuscular antibiotic treatment		
WEIGHT CHANGES	Below admission weight on week 3		
	Weight loss for three consecutive visits		
	Static weight for three consecutive visits		
REQUEST	Mother/caregiver requests treatment of child in inpatient care for social reasons (decided by supervisor)		
NOT RESPONDING	Child that is not responding to treatment is referred to inpatient care or hospital for further medical investigation.		

* Integrated Management of Neonatal and Childhood Illness (IMNCI) danger signs

ANNEX 35

NUTRITIONAL MANAGEMENT OF SYMPTOMS ASSOCIATED WITH HIV/AIDS/TB/KALA AZAR

CONDITION	FOOD AND NUTRITIONAL PRACTICES	OTHER CARE PRACTICES
Anorexia (Loss of appetite)	<ul style="list-style-type: none"> Try to stimulate appetite by eating favourite foods Eat small amounts of food more frequently Select foods that are energy dense e.g. honey etc. 	If loss of appetite is due to illness, seek medical attention
Diarrhoea	<ul style="list-style-type: none"> Drink lots of fluids to avoid dehydration e.g. soups, fruit juices, safe drinking water etc. Eat soft fruits and vegetables e.g. bananas, pawpaw, mashed carrots etc. Drink light teas (e.g. herbal tea) Consume Foods rich in fibre such as millet, banana, lentils) to help retain fluids Eat starchy foods like rice, maize, sorghum, potatoes, cassava and blended foods like corn soy blend (CSB) Consume easily digested foods high in carbohydrates e.g. rice, bread, millet, maize, potatoes Eat boiled or steamed foods Consume fermented foods e.g. yoghurt and germinated foods e.g. germinated millet porridge Eat animal source proteins e.g. fish, chicken, eggs etc. Drink non-fat milk, unless there is intolerance to lactose Eat small frequent foods and continue to eat following sickness to restore weight and nutrient loss <p>FOODS TO AVOID OR REDUCE INTAKE:</p> <ul style="list-style-type: none"> Some dairy products such as high fat milk Caffeine (coffee and tea) and alcohol Strong citrus fruits such as lemon and orange. These may irritate the stomach Avoid foods with strong smells e.g. spices like ginger, onions etc. Reduce intake of fatty foods Avoid excessively fried foods and extra oils, lard, butter Reduce intake of gas forming foods like cabbage, onions, carbonated soft drinks (sodas) Eat soups of foods rich in energy and nutrients e.g. potato, carrots Drink plenty of fluids (especially safe drinking water) to prevent dehydration Drink teas with lemon, guava, gum tree Drink more than usual, beyond quenching thirst Continue to eat small frequent meals as tolerated 	<p>PREVENTION:</p> <ul style="list-style-type: none"> Use safe drinking water Wash hands with soap and clean water before handling, preparing, serving or storing food Wash hands with soap and clean water after defecation, or cleaning a child after defecation <p>TREATMENT:</p> <ul style="list-style-type: none"> Drink plenty of fluids to prevent dehydration. Prepare rehydration solutions using packed ORS or home-made solution consisting of: <ul style="list-style-type: none"> 1 litre of safe drinking water 8 tea spoons of sugar tea spoon of iodized salt Go to a health facility if symptoms such as severe dehydration (low or no urine output, fainting, dizziness, short breath), bloody stools, high fever, vomiting, and severe abdominal pain that persists for more than 3 days Bathe in cool water Have enough rest Take antipyretics (e.g. 2 paracetamol [if adult] with a meal, three times a day Go to a health facility in case of the following signs and symptoms: <ul style="list-style-type: none"> Persistent fever, despite taking paracetamol Loss of consciousness and severe body pain Yellow eyes Severe diarrhoea
Nausea and vomiting	<ul style="list-style-type: none"> Eat small frequent meals Eat soups, sweetened porridge, and fruits like bananas Eat salty and dry foods like crackers to calm down the stomach Drink herbal teas and lemon juice in hot water Drink ginger root: crush ginger in cold water, boil the water for 10 minutes, place in a covered container, strain the ginger and drink the liquid Drink fluids such as safe drinking water <p>FOODS TO AVOID:</p> <ul style="list-style-type: none"> Fatty foods Caffeine (coffee and tea) and alcohol 	<ul style="list-style-type: none"> Avoid having an empty stomach (nausea is worse if the stomach is empty) Avoid lying down immediately after eating (wait at least 20 minutes to avoid vomiting) Rest between

ANNEX 35

CONDITION	FOOD AND NUTRITIONAL PRACTICES	OTHER CARE PRACTICES
Oral Thrush (Oral sores)	<ul style="list-style-type: none"> • Eat soft mashed foods such as carrots, scrambled eggs, mashed potatoes, bananas, soups, porridge • Eat small amounts of food • Eat foods that are cold or at room temperature • Drink plenty of fluids including fermented fluids like yoghurt and fermented porridge <p>FOODS TO AVOID:</p> <ul style="list-style-type: none"> • Spicy, salty and sticky foods as these may irritate the mouth sores • Avoid sugary foods to promote growth of yeast • Avoid strong citrus fruits and juices to prevent mouth irritation 	<ul style="list-style-type: none"> • Seek medical attention • Tilt the head back when eating to help with swallowing • Rinse mouth with boiled (or treated) warm salty water after eating to reduce irritation and prevent fungal growth
Anaemia	<ul style="list-style-type: none"> • Eat more iron rich foods: animal source foods like liver, red meat, fish; and plant source foods like beans, lentils, ground nuts, green leafy vegetables, nuts and oil seeds and fortified cereals • Eat iron rich foods together with foods rich in vitamin C (citrus fruits e.g. oranges, lemon, tangerine) to enhance absorption of iron • Take iron supplements according to national anaemia policy and guidelines • Drink plenty of fluids to avoid constipation <p>FOODS TO AVOID:</p> <ul style="list-style-type: none"> • Avoid taking caffeine (coffee and tea) with meals- delay taking tea/coffee until after meals 	<ul style="list-style-type: none"> • Treat and prevent malaria • Deworm regularly to prevent worm infestation
Muscle wasting	<ul style="list-style-type: none"> • Increase food intake by increasing quantity of food and frequency of consumption • Improve quality and quantity of food by eating a variety of foods • Eat soft liquid food if oral thrush is present • Increase protein and energy intake • Gradually introduce fat into the diet • Use fortified foods such as iodized salt, vegetable oil fortified with Vitamin A, fortified cereal flours and products etc. 	<ul style="list-style-type: none"> • Exercise to enhance nutrient absorption, energy utilization and muscle build up
Constipation	<ul style="list-style-type: none"> • Eat more foods high in fibre content e.g. maize, whole wheat, bread, green vegetables and fruits • Drink plenty of fluids <p>FOODS TO AVOID:</p> <ul style="list-style-type: none"> • Processed or refined foods 	<ul style="list-style-type: none"> • Avoid using cleansing practices such as enemas and medications • Drink plenty of fluids including boiled water
Bloatedness/ heart burn	<ul style="list-style-type: none"> • Eat small frequent meals • Avoid gas forming foods/drinks (cabbage, sodas) • Drink plenty of fluids 	<ul style="list-style-type: none"> • Eat long enough before sleeping to allow digestion to take place
Tuberculosis (TB)	<ul style="list-style-type: none"> • Consume food high in protein, energy, iron and vitamins 	<ul style="list-style-type: none"> • Seek medical attention immediately • Consult medical personnel about taking food with medication • If taking isoniazid for TB treatment, take vitamin B6 supplement to prevent deficiency of vitamin B6
Loss of taste and/ or abnormal taste	<ul style="list-style-type: none"> • Use flavour enhancers such as salt, spices, herbs and lemon • Chew food well and move it around the mouth before swallowing to stimulate receptors 	

ANNEX 36

FIVE KEYS TO SAFER FOOD³²

KEY	HOW	WHY
Keep clean	<ul style="list-style-type: none"> Wash your hands before handling food and often during food preparation Wash your hands after using the toilet/latrine Wash and sanitize all surfaces and equipment used for food preparation Protect kitchen areas and food from insects, pests and other animals 	While most microorganisms do not cause disease, dangerous microorganisms are widely found in soil, water, animals and people. These microorganisms are carried on hands, wiping cloths, and utensils, especially cutting boards and the slightest contact can transfer them to food and cause foodborne diseases
Separate raw and cooked food	<ul style="list-style-type: none"> Separate raw meat, poultry and seafood from other foods Use separate equipment and utensils such as knives and cutting boards for handling raw foods Store food in containers to avoid contact between raw and prepared foods 	Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous microorganisms which may be transferred onto other foods during food preparation and storage
Cook thoroughly	<ul style="list-style-type: none"> Cook food thoroughly, especially meat, poultry, eggs and sea food Bring foods like soups and stews to boiling point (to make sure that they have reached 70 °C). For meat and poultry, make sure that the juices are clear, not pink Reheat cooked food thoroughly 	Proper cooking kills almost all dangerous microorganisms (studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption). Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry
Keep food at safe temperatures	<ul style="list-style-type: none"> Do not leave cooked food at room temperature for more than 2 hours If available, refrigerate promptly all cooked and perishable (preferably below 5°C) Keep cooked food piping hot (>60 °C) prior to serving Do not store food too long even in the refrigerator Do not thaw frozen food at room temperature 	Microorganisms can multiply very quickly if food is stored at room temperature. By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms still grow below 5°C.
Use safe water and raw materials	<ul style="list-style-type: none"> Use safe water or treat it to make it safe Select fresh and wholesome foods Choose foods processed for safety such as pasteurized milk Wash fruits and vegetables, especially if eaten raw Do not use food beyond its expiry date 	Raw materials, including water and ice, may be contaminated with dangerous microorganisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw materials and simple measures such as washing and peeling may reduce the risk.

ANNEX 37

TYPICAL PHYSIOLOGICAL CHANGES OF AGING AND RECOMMENDED NUTRITION AND LIFESTYLE INTERVENTIONS

PHYSIOLOGICAL CHANGES	RECOMMENDED RESPONSES
Decreased appetite	<ul style="list-style-type: none"> Monitor weight and strive to eat enough to maintain healthy weight Use meal replacement products
Sense of taste and smell decreases	<ul style="list-style-type: none"> Vary the diet Experiment with herbs and spices
Chewing ability decreases	<ul style="list-style-type: none"> Work with dentist to maximize chewing ability Modify food consistency as necessary Eat high calorie snacks
Sense of thirst decreases	<ul style="list-style-type: none"> Consume plenty of fluids each day Stay alert for evidence of dehydration
Bowel dysfunction	<ul style="list-style-type: none"> Consume enough fiber daily, choosing primarily fruits, vegetables Meet daily fluid needs
Lactase production decreases	<ul style="list-style-type: none"> Limit milk serving size at each use Use reduced lactose or lactose free products Seek non-dairy calcium sources
Iron status decreases	<ul style="list-style-type: none"> Include some lean meat and iron fortified foods in the diet Ask physician to monitor blood iron status
Liver function decreases	<ul style="list-style-type: none"> Consume alcohol in moderation, if at all Avoid consuming excess vitamin A
Insulin function decreases	<ul style="list-style-type: none"> Maintain healthy body weight Perform regular physical activity
Kidney function decreases	<ul style="list-style-type: none"> If necessary, work with physician and registered dietician to modify protein and other nutrients in the diet
Immune function decreases	<ul style="list-style-type: none"> Meet nutrient needs, especially protein, vitamin E, vitamin B6, and zinc Perform regular activity
Lung function decreases	<ul style="list-style-type: none"> Avoid tobacco products Perform regular physical activity

PHYSIOLOGICAL CHANGES	RECOMMENDED RESPONSES
Vision decreases	<ul style="list-style-type: none"> Regularly consume sources of carotenoids, Vitamin C, Vitamin E, and zinc Moderate total fat intake Avoid sunglasses in sunny conditions Avoid tobacco products Perform regular physical activity
Lean tissue decreases	<ul style="list-style-type: none"> Meet nutrient needs especially protein and Vitamin D Perform regular physical activity including strength training
Cardiovascular function decreases	<ul style="list-style-type: none"> Use diet modifications or physical prescribed medications to keep blood lipids and blood pressure within desirable ranges Stay physically active Achieve and maintain a healthy body weight
Bone mass decreases	<ul style="list-style-type: none"> Meet nutrient needs especially calcium and Vitamin D Perform regular physical activity especially weight bearing exercise Women should consider use of approved osteoporosis medications at menopause Maintain a healthy weight
Mental function decrease	<ul style="list-style-type: none"> Meet nutrient needs especially for Vitamin E, C, B6, B12, folic acid. Strive for lifelong learning Perform regular physical activity Obtain adequate sleep Follow a healthy dietary pattern
Fat stores increases	<ul style="list-style-type: none"> Avoid overeating Perform regular physical activity

ANNEX 37

NUTRIENTS AND FOOD SOURCES

NUTRIENT	SOURCES	NUTRIENT	SOURCES
Carbohydrates (sugars and starches)	<ul style="list-style-type: none"> Cereals such as maize and rice; starchy roots such as cassava, sweet potatoes, irish potatoes, and yams; starchy fruits such as bananas; sugar from sugar cane, ripe fruit, milk, and honey 	Vitamin C (ascorbic acid)	<ul style="list-style-type: none"> Fruits: citrus fruits (oranges, grapefruit, lemons, tangerines, limes), berries, paw paws, mangos, melons, guavas, tomatoes, bananas Green vegetables: spinach, cabbage, broccoli, green peppers, cauliflowers, potatoes (with skin), plantains, young maize, sprouted cereals and pulses Animal foods: liver, milk Substantial amounts of vitamin C can be lost during food processing, preservation, and preparation.
Fats & Oils	<ul style="list-style-type: none"> Cooking oil, cooking fats (including ghee, kimbo, and cowboy) and blue band/margarine; fatty animal foods such as meat, chicken, milk and fish; oily vegetable foods such as groundnuts and soybeans 	Folic acid	<ul style="list-style-type: none"> Animal foods (e.g. liver, eggs, poultry, meat); green leafy vegetables (e.g. Spinach, kale); legumes, oranges, whole grain cereals
Proteins	<ul style="list-style-type: none"> Plant source: legumes and pulses (such as beans, cowpeas, garden peas, pigeon-peas and groundnuts) Animal source: milk and milk products like yoghurt and cheese, meat, poultry, fish, insects, and eggs 	Iron	<ul style="list-style-type: none"> Red meat; liver; fish; poultry; shellfish; eggs; legumes; green leafy vegetables <p>NOTE:</p> <ul style="list-style-type: none"> phytates in cereals and vegetables and tannins in tea and coffee decrease iron absorption Iron in food boiled in water is leached and lost if the water is discarded.
Vitamin A	<ul style="list-style-type: none"> Ripe mangoes, apricots, peaches, pumpkins, carrots, orange fleshed sweet potatoes, dark green leafy vegetables e.g. spinach, kale, malakwang, boo; vitamin A rich leaves such as leaves of cassava, amaranth, pumpkin etc. 	Iodine	<ul style="list-style-type: none"> Seafood, seaweed, iodized salt (iodine content depends on the soil, animal feed, etc.)
Vitamin D	<ul style="list-style-type: none"> Produced by the action of the sun on the skin Wheat germ, fish, liver, egg yolks, organ meats, cheese, milk (breast milk; milk fortified with vitamin D), butter, margarine, mayonnaise 	Zinc	<ul style="list-style-type: none"> Animal sources: meat, liver, fish, poultry, eggs, milk, yoghurt, seafood including shellfish and oysters Plant sources: cabbage, carrots, spinach, beets, green peas, legumes, whole grain cereals, peanuts, barley
Vitamin E	<ul style="list-style-type: none"> Vegetable oils; whole grain cereals 	Calcium	<ul style="list-style-type: none"> Milk, yoghurt, cheese, green leafy vegetables such as broccoli, legumes, peas, fish eaten with bones e.g. silver fish
Vitamin K	<ul style="list-style-type: none"> Synthesized by plants (Vitamin K1, or phyloquinone); synthesized by bacteria in the intestines (Vitamin K2, of menaquinone) 	Selenium	<ul style="list-style-type: none"> Brown rice, nuts, whole grains, mushrooms, asparagus, onions, garlic, egg yolks, milk, meat, seafood
Vitamin B1 (thiamine)	<ul style="list-style-type: none"> Whole grain cereals such as roasted and cooked maize, pulses; green peas; fruits, meat, milk, fish, oil seed, yeast 	Fluoride	<ul style="list-style-type: none"> Fish and seaweed bone meal, meat, and dairy products, grains, vegetables, and nuts
Vitamin B2 (riboflavin)	<ul style="list-style-type: none"> Animal products: milk, meat, liver, fish, eggs, cheese Vegetable products: green leafy vegetables, cereal grains and pulses; yeast 	Phosphorus	<ul style="list-style-type: none"> Milk and milk products; legumes
Vitamin B3 (niacin)	<ul style="list-style-type: none"> Meat (especially liver, pork); poultry; ground nuts, beans, peas, other pulses; cereal grains (not readily available in maize and sorghum, but maize can be treated with alkalis such as limewater to make the niacin more available); yeast NOTE: any protein-rich food helps form niacin. 	Sodium	<ul style="list-style-type: none"> Table salt, canned soups
Vitamin 6 (pyridoxine)	<ul style="list-style-type: none"> Animal sources: meat, liver, pork, fish, milk; Vegetable and fruit sources: spinach, turnips, broccoli, bananas, oranges, watermelon yeast 	Potassium	<ul style="list-style-type: none"> Bananas, avocados, oranges, mangoes, papayas, legumes, spinach, cabbage, carrots, tomatoes, potatoes, yams
Vitamin B12 (cobalamin)	<ul style="list-style-type: none"> Meat, fish, poultry, cheese, eggs, milk, liver NOTE: cobalamin is synthesized by bacteria in plants (e.g., in the nodules of some legumes) and animals 		

ANNEX 39

RECOMMENDED INFANT AND YOUNG CHILD NUTRITION PRACTICES

A: Breastfeeding practices and discussion points for counseling

RECOMMENDED BREASTFEEDING PRACTICE	POSSIBLE POINTS OF DISCUSSIONS FOR COUNSELING
Put infant skin-to-skin with mother immediately after birth.	<ul style="list-style-type: none"> • Skin-to-skin with mother keeps newborn warm. • Skin-to-skin with mother helps stimulate brain development.
Initiate breastfeeding within the first hour of birth.	<ul style="list-style-type: none"> • This first milk 'local word' is called colostrum. It is yellow and full of antibodies which help protect your baby. • Colostrum provides the first immunization against many diseases. • Breastfeeding from birth helps the milk 'come in', ensures plenty of breast milk, and helps eject the placenta.
Exclusively breastfeed (no other food or drink) for 6 months.	<ul style="list-style-type: none"> • Breast milk is all the infant needs for the first 6 months. • Do not give anything else to the infant before 6 months, not even water • Giving water will make the infant full and cause less suckling; less breast milk will be produced.
Breastfeed frequently, day and night.	<ul style="list-style-type: none"> • Breastfeed the baby often, at least 8-12 times for a newborn and 8 or more times after breastfeeding is well established, day and night, to produce lots of breast milk. • More suckling (with good attachment) makes more breast milk.
Breastfeed on demand (or cue) every time the baby asks to breastfeed.	<ul style="list-style-type: none"> • Crying is a late sign of hunger. • Early signs that baby wants to breastfeed: <ul style="list-style-type: none"> ◦ Restlessness ◦ Opening mouth and turning head from side to side ◦ Putting tongue in and out ◦ Sucking on fingers or fists
Let infant finish one breast and come off by him/herself before switching to the other breast.	<ul style="list-style-type: none"> • Switching back and forth from one breast to the other prevents the infant from getting the nutritious 'hind milk'. • The 'fore milk' has more water content and quenches infant's thirst; the 'hind milk' has more nutrients for growth.
Continue breastfeeding for 2 years of age or longer	<ul style="list-style-type: none"> • Breast milk contributes a significant proportion of energy and nutrients during the complementary feeding period and helps protect babies from illness • In the first year breastfeed before giving foods to maintain breast milk supply. • If infant is sick, mother should continue breastfeeding more often. Breastfeeding helps to fight against common sickness.
Avoid feeding bottles	<ul style="list-style-type: none"> • Foods or liquids should be given by a spoon or cup to reduce nipple confusion and the possible introduction of contaminants.
Mother needs to eat and drink to satisfy hunger and thirst	<ul style="list-style-type: none"> • No one special food or diet is required to provide adequate quantity or quality of breast milk • Breast milk production is not affected by maternal diet • No foods are forbidden • Mothers should be encouraged to eat supplemental foods from family food • If mother is suffering from cough, cold, or diarrhoea, she can still continue breastfeeding • Before breastfeeding, the mother should drink plenty of water

ANNEX 39

Importance of breastfeeding

IMPORTANCE OF BREASTFEEDING FOR THE INFANT/YOUNG CHILD

Breast milk:

- Saves infants' lives
- Is a wholesome food for the infant and contains balanced proportions and sufficient quantity of all the nutrients needed for the first 6 months
- Promotes adequate growth and development, thus preventing stunting
- Is always clean and safe
- Contains antibodies that protect against diseases, especially against diarrhoea and respiratory infections
- Is always ready and at the right temperature
- Is easy to digest; nutrients are well absorbed
- Protects against allergies; breast milk antibodies protect the baby's gut, preventing harmful substances from passing into the blood
- Contains enough water for the baby's needs (87% of water and minerals)
- Helps jaw and teeth development; suckling develops facial muscles
- Provides frequent skin-to-skin contact between mother and infant, which leads to better psychomotor, emotional, and social development of the infant
- Provides the infant with benefits from colostrum, which protects him/her from diseases; the amount is perfect for a baby's stomach size
- Promotes brain development and increased intelligence quotient (IQ) scores

Importance of breastfeeding for the mother

- Putting the baby to the breast immediately after birth facilitates the expulsion of placenta because the baby's suckling stimulates uterine contractions.
- Breastfeeding reduces risks of bleeding after delivery
- When the baby is immediately breastfed after birth, breast milk production is stimulated.
- Breastfeeding is more than 98% effective as a contraceptive method during the first 6 months provided that breastfeeding is exclusive and amenorrhea persists.
- Immediate and frequent suckling prevents engorgement.
- Breastfeeding reduces the mother's workload (no time is wasted in boiling water, gathering fuel, preparing milk).
- Breast milk is available at anytime and anywhere, is always

clean, nutritious, and at the right temperature.

- Breastfeeding is economical.
- Breastfeeding stimulates bond between mother and baby.
- Breastfeeding reduces risks of breast and ovarian cancer.

Importance of breastfeeding for the family

- The child receives the best possible quality of food, regardless of the family's economic situation.
- The family doesn't have to buy formula or spend more money for firewood or other fuel to boil water, milk, or utensils; the money saved can be used to meet the family's other needs.
- The family doesn't have to pay medical expenses due to illnesses that formula could cause in children, or diseases that breastfeeding helps prevent in women. Mothers and their children are healthier.
- Because the baby has fewer illnesses, the family has less stress associated with the baby's health.
- Births are spaced, thanks to breastfeeding's contraceptive effect.
- Breastfeeding saves time.
- Breastfeeding reduces the family's workload because the milk is always available and ready.

Importance of breastfeeding for the community

- Not importing formula and utensils necessary for its preparation saves hard currencies that could be used for other needs.
- Healthy babies make a healthy nation.
- Having fewer sick children leads to lower national medical expenses.
- Breastfeeding reduces child morbidity and mortality.
- Breastfeed helps protect the environment by saving trees that would have been used for firewood to boil water, milk and utensils, and because breast milk is a natural renewable resource.

ANNEX 39

B: Recommended complementary feeding practices

AGE	FREQUENCY (PER DAY)	AMOUNT OF FOOD AT EACH SERVING* (IN ADDITION TO BREAST MILK)	TEXTURE (THICKNESS/CONSISTENCY)	VARIETY
6-8 months	<ul style="list-style-type: none"> Meals 2 times Nutritious snacks 1-2 times 	<ul style="list-style-type: none"> bowl (250 ml) 	<ul style="list-style-type: none"> Thick porridge/pap Mashed/pureed family foods 	Breastfeeding + Staples Sorghum, millet, rice, bread Legumes and nuts Groundnuts, sesame, lentils, beans, peas Vegetables/fruits Green leafy vegetables, mango, pumpkin, tomato Animal foods Milk, eggs, meat, fish
9-11 months	<ul style="list-style-type: none"> Meals 3 times Nutritious snacks 2 times 	<ul style="list-style-type: none"> bowl (250 ml) 	<ul style="list-style-type: none"> Finely chopped family foods Finger foods Sliced foods 	
12-24 months	<ul style="list-style-type: none"> Meals 3 times Nutritious snacks 2 times 	<ul style="list-style-type: none"> 1 bowl (250 ml) 	<ul style="list-style-type: none"> Family foods Sliced foods 	
Note: If baby is not breastfed	<ul style="list-style-type: none"> Add 1-2 extra meal times and snacks 			Add 1-2 cups of milk per day
Responsive active feeding	<ul style="list-style-type: none"> Be patient and encourage your baby to eat actively 			
Hygiene	<ul style="list-style-type: none"> Feed your baby using a clean cup and spoon, never a bottle as this is difficult to clean and may cause your baby to get diarrhoea. Wash your hands with soap and water before preparing food, before eating, and before feeding young children. 			

* Adapt the chart to use a suitable local cup/bowl to show the amount.

The amounts assume an energy density of 0.8 - 1 kcal/g.

Use iodized salt in preparing family foods

ANNEX 40

COMMUNITY NUTRITION SCREENING DAILY TALLY SHEET FOR CHILDREN 6-59 MONTHS AND PLW

State	County	Payam	Village/Boma								
Name of HHP/volunteer		Date (dd/mm/yy) ____/____/____									
CHILDREN WITH GREEN MUAC											
	○○○○○	○○○○○	○○○○○								
	○○○○○	○○○○○	○○○○○								
CHILDREN WITH YELLOW MUAC											
	○○○○○	○○○○○	○○○○○								
	○○○○○	○○○○○	○○○○○								
CHILDREN WITH RED MUAC											
	○○○○○	○○○○○	○○○○○								
	○○○○○	○○○○○	○○○○○								
CHILDREN WITH OEDEMA											
	○○○○○	○○○○○	○○○○○								
	○○○○○	○○○○○	○○○○○								
PREGNANT AND LACTATING WOMEN WITH INFANTS <6MONTHS (PLW) WITH MUAC ≥23.0CM											
PLW (LACTATING) WITH MUAC ≥23.0CM											
	○○○○○	○○○○○	○○○○○								
PLW (PREGNANT) WITH MUAC ≥23.0CM											
	○○○○○	○○○○○	○○○○○								
PREGNANT AND LACTATING WOMEN WITH INFANT <6MONTHS (PLW) WITH MUAC <23.0CM											
PLW (LACTATING) WITH MUAC <23.0CM											
	○○○○○	○○○○○	○○○○○								
PLW (PREGNANT) WITH MUAC <23.0CM											
	○○○○○	○○○○○	○○○○○								
Number of children with GREEN MUAC		Number of children with YELLOW MUAC		Number of Children with RED MUAC		Number of children with OEDEMA		PLW WITH MUAC ≥23.0CM		PLW WITH MUAC <23.0CM	
=	=	=	=	=	=	=	=	PLW (Pregnant) =		PLW (Pregnant) =	
								PLW (Lactating) =		PLW (Lactating) =	

ANNEX 41

COMMUNITY NUTRITION SCREENING MONTHLY TALLY SHEET FOR CHILDREN 6-59 MONTHS AND PLW

State	County	Payam	Village/Boma								
Name of HHP/volunteer		Date (dd/mm/yy) ____/____/____									
CHILDREN WITH GREEN MUAC											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
CHILDREN WITH YELLOW MUAC											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
CHILDREN WITH RED MUAC											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
CHILDREN WITH OEDEMA											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
PREGNANT AND LACTATING WOMEN WITH INFANTS <6MONTHS (PLW) WITH MUAC ≥23.0CM											
PLW (LACTATING) WITH MUAC ≥23.0CM											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
PLW (PREGNANT) WITH MUAC ≥23.0CM											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
PREGNANT AND LACTATING WOMEN WITH INFANT <6MONTHS (PLW) WITH MUAC <23.0CM											
PLW (LACTATING) WITH MUAC <23.0CM											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
PLW (PREGNANT) WITH MUAC <23.0CM											
	○○○○○	○○○○○	○○○○○	○○○○○	○○○○○						
Number of children with GREEN MUAC		Number of children with YELLOW MUAC		Number of Children with RED MUAC		Number of children with OEDEMA		PLW WITH MUAC ≥23.0CM		PLW WITH MUAC <23.0CM	
=	=	=	=	=	=	=	=	PLW (Pregnant) =		PLW (Pregnant) =	
								PLW (Lactating) =		PLW (Lactating) =	

ANNEX 42

MONTHLY REPORT FORMAT FOR OTP AND TSFP

Name of Health/Nutrition Facility		State	County
Payam		Name of partners (if applicable)	
Report compiled by		Contact telephone & e-mail	
Reporting period	From (dd/mm/yy) ____ / ____ / ____	To (dd/mm/yy) ____ / ____ / ____	

HEALTH/NUTRITION FACILITY SCREENING REPORT

CHILDREN 6-59 MONTHS	TOTAL SCREENED	MUAC < 11.5	MUAC 11.5-12.4CM	MUAC ≥ 12.5 CM	BILATERAL PITTING OEDEMA
6-59 months (male)					
6-59 months (female)					

PLW	TOTAL SCREENED	MUAC < 23.0 CM	MUAC ≥ 23.0 CM
PLW (pregnant)			
PLW (lactating)			

REFERRALS FROM THE COMMUNITY

CHILDREN 6-59 MONTHS	TOTAL REFERRED	MUAC < 11.5	MUAC 11.5-12.4CM	BILATERAL PITTING OEDEMA
6-59 months (male)				
6-59 months (female)				

PLW	TOTAL REFERRED	MUAC <23.0CM
PLW (pregnant)		
PLW (lactating)		

NOTE

1. **Screening:** Only cases not already enrolled in the nutrition program are reported.

ANNEX 42

MONTHLY REPORT FORMAT FOR OTP AND TSFP

CONTINUED

TSFP REPORTING

TARGET GROUP	TOTAL IN THE BEGINNING OF THE REPORTING PERIOD (A)	NEW ADMISSIONS				TOTAL NEW ADMISSIONS (B) = (B1+B2+B3+B4)	OLD CASES (C)			TOTAL NEW ADMISSIONS (D) = (B+C)
		MUAC = 11.5 - 12.4 CM (B1)	MUAC < 23.0 CM (B2)	WHZ SCORE ≥3SD <2SD (B3)	RELAPSE (B4)		READMISSIONS (RETURNED DEFAULTER) (C1)	READMISSION (RETURNED REFERRALS) (C2)**	TRANSFER IN OTHER TSFP (C3)	
6-59 months (male)										
6-59 months (female)										
Total 6-59 months										
PLW (pregnant)										
PLW (lactating)										
Total PLW										
Older people (≥ 60 years)*										
Others (Children ≥ 5 years, adolescents, adults)*										

TARGET GROUP	DISCHARGES (E)				TRANSFERS (F)			OTHER (G)	TOTAL EXITS (H) = (E+F+G)	TOTAL IN TSFP END OF REPORTING PERIOD (I) = (A+D-H)
	CURED (E1)	DEATHS (E2)	DEFAULTERS (E3)	NON RESPONDENTS (E4)	TRANSFER TO OTP/SC/TTP (F1)	TRANSFER TO OTHER TSFP (F2)	MEDICAL TRANSFER (F3)			
6-59 months (male)										
6-59 months (female)										
Total 6-59 months										
PLW (pregnant)										
PLW (lactating)										
Total PLW										
Older people (≥ 60 years)*										
Others (Children ≥ 5 years, adolescents, adults)*										
Performance indicators										
Minimum standards	≥ 75%	< 10%	< 15%							

ANNEX 42

MONTHLY REPORT FORMAT FOR OTP AND TSFP

CONTINUED

OTP REPORTING										
TARGET GROUP	TOTAL IN OTP THE BEGINNING OF THE REPORTING PERIOD (A)	NEW ADMISSIONS				TOTAL NEW ADMISSIONS (B) = (B1+B2+B3+B4)	OLD CASES (C)			TOTAL ADMISSIONS (D) = (B+C)
		OEDEMA (+, ++) (B1)	MUAC < 11.5 CM (B2)	WHZ SCORE ≥3SD (B3)	RELAPSE (B4)		READMISSIONS (RETURNED DEFALTERS) (C1)	READMISSION (RETURNED REFERRALS) (C2)**	TRANSFER IN FROM SC/ITP/OTHER (C3)	
6-59 months (male)										
6-59 months (female)										
Total 6-59 months										
Older people (≥ 60 years)*										
Others (Children ≥ 5 years, adolescents, adults)*										
Total										
TARGET GROUP	DISCHARGES (E)				TRANSFER OUT (F)		TOTAL EXITS (G) = (E+F)	TOTAL IN OTP END OF REPORTING PERIOD (H) = (A+D-G)		
	CURED (E1)	DEATHS (E2)	DEFAULTERS (E3)	NON RESPONDENTS (E4)	TRANSFER TO SC/ITP OR OTHER OTP (F1)	MEDICAL TRANSFER (F2)				
6-59 months (male)										
6-59 months (female)										
Total 6-59 months										
Older people (≥ 60 years)*										
Others (Children ≥ 5 years, adolescents, adults)*										
Total										
Performance indicators										
Minimum standards	≥ 75%	< 10%	< 15%							

NOTES

1. Calculation of Performance indicators for TSFP and OTP:

a) Cure rate = Total Cured/Total discharges x100

b) Death rate = Total died/Total discharges x100

c) Defaulter rate = Total defaulted/Total discharges x100

d) Non-respondent rate = Total non-respondents/Total discharges x100

Total Discharges = Total (Cured+ deaths+defaulters+non-respondents)**2. Oedema(+, ++):** Cases with bilateral pitting oedema (grade 1 and grade 2). These cases should be recorded only in the oedema column.**3. Relapses:** Cases who were previously treated for SAM or MAM and discharged as "cured", but are readmitted because they fulfill admission criteria for OTP or TSFP within a period of two months.**4. Returned referrals:** Cases with SAM or MAM who were referred for medical investigation (not in any nutrition programme) and return to continue treatment for SAM/MAM within their OTP/TSFP treatment period.**5. Returned defaulters:** Cases previously exited from OTP/TSFP as defaulters but return (within a period of two months) and still fulfill the admission criteria for SAM/MAM.**6. Cured:** Cases who meet discharge criteria for OTP. i.e. MUAC ≥11.5cm OR WFH/L ≥-3z-score for 2 consecutive weeks AND no bilateral pitting oedema AND clinically well and alert if children 6-59 months. ALSO cases who meet discharge criteria for TSFP i.e. MUAC ≥ 12.5cm OR WFH/L ≥ -2z-score for 2 consecutive weeks AND clinically well and alert MUAC ≥23.0cm, on delivery OR infant reaches 6 months if PLW)**7. Deaths:** Cases who died while registered in OTP/TSFP.**8. Defaulters:** Cases who were absent for 2 consecutive visits in OTP/TSFP.**9. Medical transfers/referrals:** Cases referred to a hospital or health facility for medical investigation and care (not in any nutrition programme).**10. *For other categories:** Use the applicable MUAC, BMI for age, or BMI cut off as per the CMAM guidelines.

ANNEX 43

BSFP MONTHLY REPORT FORMAT

Name of Health/Nutrition Facility
State
County
Payams
Partner
Context (urban, rural, camp)
Report compiled by
Contact telephone & e-mail
Reporting period

	CHILDREN 6-23 MONTHS			CHILDREN 24-59 MONTHS			PREGNANT WOMEN			LACTATING WOMEN		
	PRE-VIOUS MONTH CARRY-OVER	NEWLY ENROLLED	ATTENDED	PRE-VIOUS MONTH CARRY-OVER	NEWLY ENROLLED	ATTENDED	PRE-VIOUS MONTH CARRY-OVER	NEWLY ENROLLED	ATTENDED	PRE-VIOUS MONTH CARRY-OVER	NEWLY ENROLLED	ATTENDED
Male				0		0						0
Female				0		0						0

ANNEX 44

WEEKLY/BIWEEKLY COACHING AND MENTORSHIP CHECKLIST

State	County	Payam
Name of Health/Nutrition Facility		Date (dd/mm/yy) _____ / _____ / _____

	QUALITY P=POOR, SATISFACTORY, G=GOOD	DISCUSSED WITH STAFF (Y/N)	COMMENTS/ ACTIONS TAKEN
ANTHROPOMETRY			
Is oedema assessed accurately?			
Is MUAC measured and recorded accurately?			
Is weight taken and recorded accurately?			
Is height/length taken and recorded accurately?			
TSFP/OTP QUALITY OF PROGRAMME			
Are admission procedures and criteria correct?			
Is assessment of child performed correctly and recorded correctly?			
Are routine medications given correctly?			
Action protocol used correctly to determine appropriate action?			
Are treatment cards filled out correctly?			
Are register books filled out correctly?			
Is the ration given and recorded correctly?			
Are key messages correctly given to mothers/caregivers?			
Is a prevention packages available, given, and recorded correctly?			
Are non-respondents referred for medical investigation?			
Are MIYCN prevention messages given, and practical demonstrations held appropriately?			
Are discharge procedures and criteria correctly followed?			
COMMUNITY OUTREACH ACTIVITIES			
Is active case finding conducted by HHPs/volunteers?			
Are children referred accurately from the community?			
Do community leaders understand the purpose of the program?			
Are absentees or defaulters followed up in the community?			
Monitoring and reporting			
Are OTP/TSFP registration numbers assigned correctly?			
Are referral slips filled out correctly?			
Are monthly reports completed correctly and submitted on time?			
SUPPLIES, EQUIPMENT AND ORGANIZATION			
Is there a break in supplies? (yes/no)			
Are nutrition commodities stored correctly?			
Are the necessary equipment and supplies available and in good order? (yes/no)			
Is the TSFP/OTP site organized well? (yes/no)			
Is staff capacity sufficient to manage case load? (yes/no)			
ACTIONS TAKEN:			
Name of staff in-charge of the OTP/TSFP (interviewed):	Designation:	Signature	
Name of Supervisor:	Designation	Signature	

ANNEX 45

MONTHLY SUPPORTIVE SUPERVISION CHECKLIST FOR OTP/TSFP

State	County	Payam	
Name of Health/Nutrition Facility		Date (dd/mm/yy) ____ / ____ / ____	
Supportive Supervision visit conducted while the OTP/TSFP session is running? <input type="checkbox"/> Yes <input type="checkbox"/> No			
OTP/TSFP supported by MOH/NGO (specify)			
Month of the last Supportive Supervision visit		and by whom?	
Actions from previous Supportive Supervision			
Name of staff (s) interviewed during the visit			
NAME	POSITION	CADRE	INSTITUTION/EMPLOYER

1. STAFF & TRAINING

1.1 Staff of the OTP/TSFP:

#	QUALIFICATION (NUTRITIONIST NURSES, CLINICIANS/ PHO, CHW/HHP/ VOLUNTEERS)	NUMBER	RESPONSIBLE FOR:	SALARIES INCENTIVES OTHERS (SPECIFY)	TRAINING ON SAM/MAM? IF YES, DATE OF THE LAST TRAINING	PRESENT/ ABSENT THE DAY OF THE VISIT

Conclusion & actions taken _____

2. ACTION PROTOCOL

2.1 Copy of the up-to-date protocol? Yes No If Yes, Year: _____

2.2 Posters/Job Aids displayed on the wall? Yes No If Yes, which ones? _____

2.3 Protocol READ? Yes No KNOWN? Yes No

DIFFICULTIES in UNDERSTANDING? Yes No If Yes, which part? _____

Conclusion & actions taken _____

3. TOOLS – MATERIALS – PRODUCTS

- 3.1 Register books available? Yes No
- 3.2 Charts/Job Aids available? Yes No If No, which ones are missing? _____
- 3.3 Treatment Card available? Yes No
- 3.4 Referral forms available? Yes No
- 3.5 Safe drinking water available? Yes No If No, Actions taken _____
- 3.6 Sugar water available? Yes No If No, Actions taken _____
- 3.7 Health/Nutrition Education and Counselling cards/materials available?* Yes No
- 3.8 Anthropometric equipment present and in good condition? Yes No
If not, please specify for MUAC _____ length-board _____ Scale _____ Others _____
- 3.9 Routine medications available? Yes No If not, which ones? _____
- 3.10 Logistics resources (motorbike, car, truck – petrol)? Yes No
If no, what arrangements have been made _____
- 3.11 Therapeutic /supplementary foods available, for how long? Yes No If not why? _____
- 3.12 Structures: Any problem to report _____

Conclusion & actions taken _____

4. ACTIVITIES observed (on patients and/or written on the charts)

OBSERVED OR REVIEWED FROM RECORDS OF THE LAST 2 MONTHS	DIRECTLY OBSERVED	RECORD REVIEW	ADEQUATE? Y/N	QUALITY		REMARKS
				GOOD +1	POOR 0	
1. Welcoming the beneficiaries/ caregivers						
2. Flow of the beneficiaries						
3. Passive screening						
4. # of cases referred by HHPs/ volunteers in the last month?						
5. Is bilateral pitting oedema checked?						
6. Is oedema graded?						
7. Is MUAC measurement taken correctly?						
8. Is weight measurement taken correctly?						
9. Is Length/height measurement taken where needed and feasible?						

* MIYCN counselling cards/Flip charts, Posters

ANNEX 45

OBSERVED OR REVIEWED FROM RECORDS OF THE LAST 2 MONTHS	DIRECTLY OBSERVED	RECORD REVIEW	ADEQUATE? Y/N	QUALITY		REMARKS
				GOOD +1	POOR 0	
10. Is additional assessment with WFH/L z-score conducted correctly?						
11. Is admission criteria correct?						
12. Is discharge criteria correct?						
13. For every new case, is a medical check/clinical assessment done and recorded by a clinician?						
14. Is appetite test for RUTF conducted correctly at both admission & follow up? (for OTP)?						
15. Are registration # given correctly?						
16. Are routine medications given and recorded correctly?						
17. Is the ration given & recorded correctly?						
18. Frequency of anthropometric measurements?						
19. Frequency of RUTF/RUSF distribution?						
20. Is Health & Nutrition Education provided?						
21. Is failure to respond to treatment diagnosed and action taken correctly?						
22. Are absentees and defaulters noted in the register books, and traced?						
23. Home visits conducted according to criteria and recorded?						
24. Are referral slips used for all referrals						
25. Is exit outcome recorded on the treatment card and in the register book?						
26. Are register books & treatment cards well kept at the health/nutrition facility?						
27. Are stock cards of nutrition therapeutic supplies kept and updated correctly?						
28. Are WASH facilities available? (portable water, handwashing facilities, soap for handwashing, toilet facilities)						
29. Are the monthly reports compiled correctly?						
30. Are the monthly reports submitted on time						
31. Are community nutrition monthly reports received and filled correctly?						
Total score				= _____ x100		
				31		
				= _____ %		

Conclusion & actions taken _____

ANNEX 45

5. STORAGE STRUCTUREShelter: Yes No If No, which ones are missing? _____Hygiene: Yes No If No, which ones are missing? _____

Other: _____

Adequate Storage: Yes No If No, which ones are missing? _____

If No, explain _____

6. COORDINATION

Date of the last CHD Meeting _____ / _____ / _____

Date of the last delivery of RUTF/RUSF and other supplies _____ / _____ / _____

Date of the last Meeting with the HHPs _____ / _____ / _____

Is a visitors book available and in use? _____

Remarks: _____

7. Beneficiaries/Mothers/caregivers' perceived views on nutrition services

Remarks _____

CONCLUSION & ACTION TO BE TAKEN FOR THE NEXT MONTH

Name and signature of staff in charge: _____

Name and signature of Supervisor: _____

ANNEX 46

HEALTH/NUTRITION FACILITY INTEGRATED QUARTERLY SUPPORTIVE SUPERVISION CHECKLIST

State	County	Payam
Date (dd/mm/yy) _____ / _____ / _____		
Name of staff in-charge interviewed		Contact telephone

BASIC INFORMATION

1. Name of Health/Nutrition Facility: _____
2. Type (PHCU, PHCC or Hospital): _____
3. Ownership (Government, Partners)? _____
4. Number of Villages/Bomas attached to this Health facility? _____
5. Catchment population of the Health facility? _____

ORGANIZATION AND MANAGEMENT

1. Reception/waiting area at OPD available and well organized? _____
2. Water, Sanitation and Hygiene (WASH) of the health facility:
 - Latrines for patients and caregivers available and functional? _____
 - Latrines for staff available and functional? _____
 - Refuse disposal facilities in place? _____
 - Medical waste disposal facilities in place? _____
 - Compound tidy? _____
 - Hand washing facility (with soap) available? _____
 - What is the main source of water? _____
3. Staffing (please insert types of cadres)

a. Health and Nutrition staff

CADRES	#AVAILABLE	GAP	#TRAINED ON NUTRITION SERVICE DELIVERY	COMMENTS

ANNEX 46

a. Support staff

CADRES	#AVAILABLE	GAP	#TRAINED ON NUTRITION SERVICE DELIVERY	COMMENTS

4. HHP/volunteer functionality? (e.g. No. of active HHPs/volunteers per facility, No. of referrals made in a quarter, feedback meetings held) _____
5. HHPs/Volunteers supervision file in place and updated? _____
6. Attendance register book in place and properly filled? _____
7. Leave roster in place? _____
8. Duty roster in place? _____
9. Minutes of staff meetings available? _____
10. Minutes of the health facility management committee meetings available? _____
11. Any minutes of other relevant meetings? (specify) _____
12. Reports from weekly/biweekly and monthly supportive supervision visits available and acted on? Yes No
Comments: _____

SERVICES

A: NUTRITION SERVICES

1. Evidence of nutrition assessment at different care points (general OPD, ANC/PNC, OTP, TSFP, HIV/AIDS/TB/kala azar/ paediatric wards, maternity, ITP/SC etc.):
 - a. Is bilateral pitting Oedema checked and recorded correctly? _____
 - b. Is MUAC measured and recorded correctly? _____
 - c. Is Weight taken and recorded correctly? _____
 - d. Are Height/length taken and recorded correctly? _____
 - e. Are Medical complications identified and recorded correctly? ³³ _____
 - f. Interpretation done correctly? _____
 - g. Referral for nutrition services conducted as necessary? ³⁴ _____
2. OTP available and functional? _____
3. TSFP available and functional? _____
4. ITP/SC available and functional (if applicable)? _____
5. BSFP services available (if applicable)? _____
6. **Waiting area at the OTP/TSFP:** Is there a seating area available, is it in the shade and well organized? Triage conducted correctly? Is health and nutrition education conducted? _____

ANNEX 46

7. Are cases with acute malnutrition and mothers/caregivers handled properly (served timely, staff attitude, clear instructions on what to do)? _____
8. Facilities for stimulation/play therapy (e.g. playground for children, play materials/toys) available? Yes No
Comments: _____
9. Facilities for health /nutrition education and counselling (counselling room, demonstration materials and equipment) available? Yes No
Comments: _____
10. Kitchen garden for demonstration to mothers/caregivers of children under five years available? Yes No
Comments: _____
11. Availability and functionality of anthropometric equipment (MUAC tapes, Weighing scales, Height boards) *(Tick appropriately where applicable)*

ANTHROPOMETRIC EQUIPMENT	AVAILABILITY	FUNCTIONALITY	COMMENTS
MUAC tapes (children)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
MUAC tapes (adults)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Weighing scales (children)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Weighing scales (adults)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Height boards (children)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Height boards (adults)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

12. Demonstrated ability on use of the anthropometric equipment

ANTHROPOMETRIC EQUIPMENT	COMMENTS ON DEMONSTRATED ABILITY ON USE:
MUAC tapes	
Weighing scales (Digital)	
Height boards	

13. Availability of IEC materials on nutrition/health?

IEC MATERIALS	COMMENTS ON AVAILABILITY:
MIYCN	
WASH	
Family planning	
GMP	
Others (specify)	

14. Documentation of Health/Nutrition Education and Counselling sessions held (group/individual): Yes No
Comments: _____
15. Is there evidence of behaviour change as a result nutrition counselling (e.g. success stories etc.). Yes No
Comments: _____

ANNEX 46

16. Availability and proper usage of therapeutic /supplementary foods/supplies (stock out, prescription, preparation, feeding utensils, feeding frequency, supervision, personnel, state of the kitchen)?

THERAPEUTIC NUTRITION SUPPLIES/ FACILITIES	COMMENTS ON AVAILABILITY AND PROPER USAGE:
Routine medications	
F75	
F100	
Resomal	
RUTF	
Supplementary food rations (RUSF, CSB++)	
Feeding utensils	
Kitchen	
Protective gear	
Others (specify)	

17. Are the CMAM guidelines/protocols ³⁵ available and in use in the facility? Yes No

Comments: _____

18. Nutrition supplies management and stock control:

- File for delivery notes in place? _____
- File for routine medications and other supplies orders ³⁶ in place? _____
- Are store issue vouchers available and appropriately filled? _____
- Are stock cards present and updated correctly? _____
- Is the dispensing Log for supplies present and duly filled? _____
- Stores organised and supplies sorted appropriately? _____
- Equipment and other materials available and in good condition? _____
- Equipment inventory available and updated? _____
- Comment on conditions of storage of supplies (expiry dates, shelves, pallets, SLFO/FEFO ³⁷, fumigation schedule, ventilation, accessibility, security) _____
- Are expired/damaged/obsolete drugs, nutrition therapeutic supplies and equipment stored separately and disposed of appropriately? _____

19. Nutrition Data Collection, Management and Use:

- Timely compilation of accurate, complete program data ³⁸ (look at CMAM register books and monthly reports for confirmation), shared/ submission and where

PROGRAMME DATA SOURCE	COMMENTS ON ACCURACY AND COMPLETENESS OF PROGRAM DATA/SHARE/ SUBMISSION:
Inpatient (SC/ITP) register books	
SC/ ITP monthly reports	
OTP register books	
TSFP register books	
BSFP register books (if applicable)	
OTP/TSFP/BSFP monthly reports	
MIYCN reporting format	

ANNEX 46

b. Are performance indicators in line with minimum standards (SPHERE Standards) (cure rate, death rate, defaulter rate: Quarterly average). Yes No Comments: _____

c. Are nutrition data forms uploaded onto the District Health Information System (DHIS 2) and updated? Yes No Comments: _____

d. Are monthly trends of new cases identified with acute malnutrition through routine screening plotted on a graph and displayed at the health facility? Yes No Comments: _____

e. Is home visit data used (analysed and compiled into summary, discussed during monthly meetings with HHPs/volunteers) and shared with relevant clusters e.g. WASH, FSL? _____

B: EXPANDED PROGRAMME OF IMMUNIZATION (EPI) SERVICES

1. EPI Outreach roster for the month available? _____
2. EPI Outreach tally sheets for the last month available? _____
3. EPI fridge functional, temperature monitoring chart available and updated? _____
4. EPI fridge and vaccine carriers well organized? _____
5. Is the vaccine control book in place and correctly filled? _____
6. How is the coverage for EPI? _____
7. Integration of nutrition into EPI services? Yes No Comments: _____

C: REPRODUCTIVE HEALTH SERVICES

1. ANC outreach program available and followed? _____
2. ANC register in place and appropriately filled? _____
3. Are reproductive health commodities ³⁹ available? _____
4. Deliveries register in place and appropriately filled? _____
5. Integration of nutrition into reproductive services? Yes No Comments: _____

PROBLEMS, SOLUTIONS AND RECOMMENDATIONS

NO.	GAPS IDENTIFIED	SOLUTIONS PROPOSED	TIME FRAME	PEOPLE RESPONSIBLE

Overall comments on the support supervision visit _____

Name of supervisor _____ Signature _____

Organization/Institution _____

PLEASE ENSURE THAT A COPY OF THIS SUPPORT SUPERVISION FORM IS KEPT AT THE HEALTH UNIT.

ANNEX 47

ESTIMATING NUTRITION SUPPLIES NEEDS

A: ESTIMATING RUTF NEEDS OTP

For treating children 6-59 months in OTP, it has been estimated to require 136 sachets per treatment per child, on average.

Projections for RUTF requirements are made by multiplying the RUTF required per treatment per child with the total admissions or anticipated cases (based on trends of acute malnutrition).

EXAMPLE

Consider an OTP that had **100** total admissions of children 6-59M during the month of December 2015. Projections for RUTF requirements for this OTP for the period January to February 2016 are as follows:

- RUTF required for 1 child for the entire treatment (average of 2 months) = 136 sachets;
- RUTF required for 100 children for entire treatment (average of 2 months) = 136 sachets x 100 = 13600 sachets;
- Convert to cartons = $\frac{13600}{150} = 90.7$ cartons;
- Round up to 91 cartons;
- Add 10% buffer stock = $\frac{10 \times 91}{100} = 9.1$ cartons
- Round up to 10 cartons;
- **Total amount to order = 91+10 = 101 cartons of RUTF.**

Note: Be sure you order in full cartons.

B: ESTIMATING SUPPLEMENTARY FOOD NEEDS FOR TSFP

A child 6-59 months admitted in TSFP will require 1 sachet of RUSF per day translating into 30 sachets per month.

If using super cereal plus as an alternative ration to RUSF, a child 6-59 months will require 200g per day and $200 \times 30 = 6000\text{g} = 6\text{kg}$ per month. Each packet of super cereal plus = 1.5kg. Therefore, the child will require 4 packets of super cereal plus per month.

Note: 1 box of super cereal plus contains 10 packets.

EXAMPLE:

If you have 200 children 6-59 months in TSFP at the end of November 2015, projections for RUSF requirements for January 2016 are as follows:

- RUSF required for 1 child for one month = 30 sachets
- RUSF required for 200 children for one month = $30 \times 200 = 6000$ sachets
- Add 10% buffer stock = $\frac{10 \times 6000}{100} = 600$ sachets
- Total amount of stock to order = $6000 + 600 = 6600$ sachets
- Convert to cartons = $\frac{6600}{150} = 44$ cartons

ANNEX 48

NUTRITION SUPPLIES AND EQUIPMENT ORDER FORM TEMPLATE

State	County	Payam
Name of Health/Nutrition Facility	Organization	Requested by
Date (dd/mm/yy) _____ / _____ / _____		Contact telephone & e-mail

ITEM	UNIT	RECOMMENDED NO. UNITS/TREATMENT/CHILD OR MONTHLY RATION	BUFFER STOCK (%)	CASE LOAD	AMOUNT NEEDED FOR PROGRAMME	AMOUNT OF BUFFER STOCK	TOTAL STOCK NEEDED	STOCK IN CARTONS
Resomal, 42 sachet/1L/CAR-100	sachet 42g	0.2	10					
F75 therapeutic diet, sachet 102.5g/CAR-120	sachet 102.5g	12	10					
F100 therapeutic diet, sachet 114g/CAR-120	sachet 102.5g	4	10					
Therapeutic spread, sachet 92g/CAR-150	sachet 92g	136	10					
Mother/baby electronic scales	PC		0					
Baby length/height board	PC		0					
Height board (adult)	PC		0					
MUAC tapes (child)	PAC		0					
MUAC tapes (adult)	PAC		0					
Retinol 100,000IU soft gel caps/PAC-500	Caps	1	10					
Retinol 200,000IU soft gel caps/PAC-500	Caps	1	10					
Mebendazole 500 mg tabs/PAC-100	Tab	1	10					
Folic acid 5mg tab								
Anti malarials								
Amoxici.pdr/oral sus. 125mg/5ml/BOT-100ml								
Bed nets (LLITN) (pc)								
Soap for hand washing (Bars)								
RUSF, sachet 92g/CAR-150	sachet 92g	30	10					
CSB++, 1.5kg/CAR-10	PAC 1.5kg	4	10					

- NOTES:** 1. For therapeutic supplies, 10% buffer or emergency stock should be added to quantities needed for the program.
 2. Amount needed for program is equal to number of children on program X Unit of item recommended/treatment/child.
 3. Two months buffer stock should always be kept in the facility store or 4months buffer stock in the warehouse.

This list is not exhaustive, other items can be added if in use

Name and Title of Person requesting: Signature: Date:	Name and Title of Person approving: Signature: Date:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">ITEM</th> <th style="width: 20%;">WHEN TO ORDER</th> <th style="width: 20%;">WHERE TO PLACE A NEW SUPPLY ORDER</th> </tr> </thead> <tbody> <tr><td>Resomal, 42 sachet/1L/CAR-100</td><td>Every 2 months</td><td rowspan="10" style="text-align: left; vertical-align: top;">through CHD / SMOH to MOH/ UNICEF/WFP</td></tr> <tr><td>F75 therapeutic diet, sachet 102.5g/CAR-120</td><td>Every 2 months</td></tr> <tr><td>F100 therapeutic diet, sachet 114g/CAR-120</td><td>Every 2 months</td></tr> <tr><td>Therapeutic spread, sachet 92g/CAR-150</td><td>Every 2 months</td></tr> <tr><td>Mother/baby electronic scales</td><td>Based on need</td></tr> <tr><td>Baby length/height board</td><td>Based on need</td></tr> <tr><td>RUSF/CSB ++</td><td>Monthly</td></tr> <tr><td>MUAC tapes (child,11.5 Red)</td><td>Based on need</td></tr> <tr><td>Retinol 100,000IU soft gel caps/PAC-500</td><td rowspan="4" style="text-align: left; vertical-align: top;">Should be part of MOH essential drugs list</td></tr> <tr><td>Retinol 200,000IU soft gel caps/PAC-500</td></tr> <tr><td>Mebendazole 500 mg tabs/PAC-100</td></tr> <tr><td>Albendazole 400mg tabs/PAC-100</td></tr> <tr><td>Amoxici.pdr/oral sus 125mg/5ml/BOT-100ml</td><td></td><td></td></tr> </tbody> </table>	ITEM	WHEN TO ORDER	WHERE TO PLACE A NEW SUPPLY ORDER	Resomal, 42 sachet/1L/CAR-100	Every 2 months	through CHD / SMOH to MOH/ UNICEF/WFP	F75 therapeutic diet, sachet 102.5g/CAR-120	Every 2 months	F100 therapeutic diet, sachet 114g/CAR-120	Every 2 months	Therapeutic spread, sachet 92g/CAR-150	Every 2 months	Mother/baby electronic scales	Based on need	Baby length/height board	Based on need	RUSF/CSB ++	Monthly	MUAC tapes (child,11.5 Red)	Based on need	Retinol 100,000IU soft gel caps/PAC-500	Should be part of MOH essential drugs list	Retinol 200,000IU soft gel caps/PAC-500	Mebendazole 500 mg tabs/PAC-100	Albendazole 400mg tabs/PAC-100	Amoxici.pdr/oral sus 125mg/5ml/BOT-100ml		
ITEM	WHEN TO ORDER	WHERE TO PLACE A NEW SUPPLY ORDER																												
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Albendazole 400mg tabs/PAC-100																														
Amoxici.pdr/oral sus 125mg/5ml/BOT-100ml																														

To be submitted min. two weeks in advance of expected delivery of items

ANNEX 49

MONTHLY NUTRITION STOCK REPORT FORMAT

State	County:	Payam
Name of organization	Name of Health/ Nutrition Facility	Reporting month
Compiled by	Contact telephone & e-mail	Date (dd/mm/yy) ____ / ____ / ____

ITEM	CODE	UNIT	STOCK AT THE BEGINNING OF THE MONTH	NEW STOCK RECEIVED DURING THE REPORTING MONTH	STOCK UTILIZED DURING THE REPORTING MONTH	DAMAGED /EXPIRED STOCK	BALANCE AT THE END OF MONTH	NO. OF STOCK OUT DAYS	REMARKS
Plumpynut (RUTF) sachet CAR/ 92 g-150	S0000240	CAR							
Amoxicillin pdr oral sus 125 mg bot 100 ml	S1505046	BOT							
Amox 250mg tab Pac 10	S1505045	PAC							
Amox 250mg tb Pac20	S1505044	PAC							
Weighing trousers pac	S0189000	PAC							
Micronutrients film tab Pac 1000	S1580100	PAC							
Albendazole 400 mg chew pac 1000	S1555370	PAC							
Scale inf. Spring	S0557000	PC							
ReSoMal 42 g sachet Car 100	S1561125	CAR							
F-100 ther diet sachet 1114 g Car 90	S0000209	CAR							
F-75 ther diet sachet 102 g Car 120	S0000208	CAR							
Portable bay/child length/height measure	S0114540	SET							
Portable adult height measure		SET							
Weighing scale mother child 150 kg x 25g	S0141021	EA							
Mebendazole 500 mg chew tab pack 100	S1555360	PAC							
MUAC child PAC-50	S0145620	PAC							
MUAC Adult PAC-50	S0145630	PAC							
Retinol 100 K IU soft gel PAC caps. PAC-500	S7800001	PAC							
Retinol 200 K IU soft gel PAC caps. PAC-500	S7800002	PAC							
Portable bay child L-H meas./SET-2	S0114530	SET							
Scale infant spring type 25 kg x100g	S0145555	EA							
Fe +folic acid 60+0.4 mg tab/PAC 1000	S1550025	PAC							
Multiple Micro. Nut pdr	S1580201	PAC							
Port. Baby chd L-H	S01145200	SET							
RUSF sachet CAR/ 92 g-150		CAR							
CSB ++		CAR							
Soap for hand washing									
Bed net (LLITN)									
Antimalarials									

Note: This list is not exhaustive, other supplies and equipment can be added if in use

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ENDNOTES

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- 2 Ideally maximum length of stay should be 2 months for OTP and 3 months for TSFP (SPHERE standards). However, due to contextual factors influencing length of stay in OTP/TSFP in South Sudan, (such as high levels of food insecurity, selling/sharing of RUTF, erratic nature of nutrition therapeutic supplies, absenteeism for scheduled follow up visits), an additional one month has been allowed for OTP.
- 3 WHO (2003): Management of Nutrition in Emergencies
- 4 Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, Mathers C, Rivera J. Maternal and child undernutrition: global and regional exposures and health consequences. *The Lancet*. 2008; 371: 243–60.
- 5 WHO (2013): WHO conceptual framework: Childhood stunting context, causes, and consequences
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- 7 Republic of South Sudan: The Sudan Household Health Survey (2010)
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- 9 Pelletier D L (1994). The relationship between child anthropometry and mortality in developing countries: implications for policy, programs and future research. *J Nutr*. 124(10 Suppl) 2047S–2081S.2081S
- 10 For example, in cases with MAM, the usual signs of dehydration such as sunken eyes and slow skin pinch are relatively reliable. Renal function is sufficiently preserved. These children with MAM can be treated with standard IMNCI protocols for diarrhoea and dehydration. The inflammatory response is relatively intact, such that fever is usually due to infection. Pneumonia typically presents with a fast respiratory rate. These cases can safely metabolize standard doses of most drugs. This is different from the SAM cases, where different diagnostic criteria and treatments have to be applied.
- 11 Howard G. and Snetro, 2004: How to mobilize communities for social change
- 12 Aggravating factors are normally defined as inadequate general food consumption, crude mortality rate above 1/10,000/day, epidemics measles and high prevalence of respiratory or diarrheal diseases, Poor sanitation environment, among others.
- 13 ART: Antiretroviral Treatment (for people infected with HIV)
- 14 DOTS: Directly Observed Therapy Short-Course (for TB patients)
- 15 **Medical complications:** hypoglycaemia, hypothermia, infections, diarrhea and dehydration, shock, very severe anaemia, cardiac failure, severe dermatosis, corneal ulcerations.
IMNCI (general) danger signs: unable to drink or breastfeed; vomits everything; has had convulsions (more than one or prolonged >15 min); lethargic or unconscious; convulsing now.
- 16 Collins and Yates, 2003: The need to update the classification of Acute Malnutrition: *The Lancet*, 362, (93979), 2003:249
- 17 A medical check involves history taking (medical and dietary/feeding history) and physical examination. It should be carried out by a qualified/skilled health provider such as a clinician or a nurse (in absence of a clinician) to rule out any medical complications or general danger signs before admission to TSFP.
- 18 Initial planning timeframes generally anticipate a duration of 3 months for a BSFP though there may be variations.
- 19 A medical check involves history taking (medical and dietary/feeding history) and physical examination. It should be carried out by a qualified/skilled health provider such as a clinician or a nurse (in absence of a clinician) to rule out any medical complications or general danger signs before admission to OTP.
- 20 Ready-to-use therapeutic food which comply with WHO specifications already contain sufficient vitamin A
- 21 3 or more loose in stools in a day
- 22 Kala-Azar also known as “visceral leishmaniasis (VL),” or black fever, is a disease endemic to South Sudan, particularly in Upper Nile, Jonglei, Unity and Eastern Equatoria States. Most affected patients (70%) are children aged under 15 years who already suffer from concurrent malnutrition and other secondary illnesses.
- 23 Effects of aging such as loss of teeth, gum disease, difficulties in chewing and swallowing, poor absorption, sensory loss, poor appetite, hypertension and diabetes predispose the older persons to acute malnutrition
- 24 WHO, 2007. WHO Reference 2007, Growth reference data for 5-19 years. Geneva: WHO.
- 25 De Onis, M, AW, Onyango, E Borghi, A Siyam, C Nishida, and J Siekmann. 2007. Development of a WHO growth reference for school-aged children and adolescents. *Bulletin of the World Health Organization* 85: 660-7.
- 26 WHO, 1999. *Management of severe malnutrition: A manual for physicians and other senior health workers*. Geneva: WHO.
- 27 FANTA, 2003. *Anthropometric Indicators Measurement Guide*. Washington, DC: FANTA at AED
- 28 FANTA-2 generic CMAM Job Aids/Monitoring and Reporting Sheets, november 2010 draft www.fantaproject.org for new updates and final versions
- 29 The expanded criterion takes into account scale up for the locations without partners and also weak partner capacity in implementing the full OTP protocol. For the longer term, implementing actors are encouraged to staff OTPs and TSFP adequately to provide the full range of services in line with the national CMAM guidelines
- 30 UNHCR (2011). *Guidelines of Selective Feeding: The Management of Malnutrition in Emergencies*.
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- 32 Food Safety, World Health Organization (WHO) http://www.who.int/foodsafety/areas_work/food-hygiene/5keys-poster/en/. Retrieved on 15/01/2016
- 33 Medical complications including hypothermia, hypoglycemia, diarrhoea and dehydration, shock, infections, severe Vitamin A deficiency, cardiac failure, very severe anemia, severe dermatosis
- 34 Medical complications including hypothermia, hypoglycemia, diarrhoea and dehydration, shock, infections, severe Vitamin A deficiency, cardiac failure, very severe anemia, severe dermatosis
- 35 CMAM/MIYCN/PMTCT/iCCM/TB/MALARIA/ANC/REPRODUCTIVE HEALTH/IMNCI Functionality: in line with National CMAM guidelines.
- 36 To include nutrition supplies; RUTF, F100, F75, Resomal, CMV, RUSF, CSB++, CSB+, sugar, oil
- 37 SLFO: Shortest Life First Out; FEFO: First Expiry first Out
- 38 Emphasis is on proper filling of all M & E tools
- 39 Include the following: Iron/folate supplementation, deworming tablets (anthelmintic), Tetanus Toxoid (TT)



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