**NUTRITION**

**Overview of nutrition in emergencies programming:**

In the emergency context, the type of malnutrition we are most worried about is acute malnutrition. Acute malnutrition is caused by a (sudden, and) drastic reduction in food intake and/or illness, often aggravated by suboptimal infant and young child feeding practices, leading to a significant loss of body weight (with severe health consequences). There are two levels of classification of acute malnutrition within an individual: severe and moderate. Acute malnutrition is of key concern because children who suffer from severe acute malnutrition (SAM) face a 9 times higher chance of dying compared to children who do not suffer from acute malnutrition.

Acute malnutrition (also called ‘wasting’)

* At the **level of the individual**, this is defined through anthropometric (body) measurements, and clinical signs of visible wasting and/or bilateral oedema.
  + Acute malnutrition among infants less than 6 months of age is assessed using visible signs of wasting and bilateral oedema. Social criteria such as an absent mother or inadequacy of breastfeeding can indicate nutritional risk.
  + Acute malnutrition among children 6-59 months is assessed using the nutritional indices of weight-for-height or weight-for-length (WFH), mid-upper arm circumference (MUAC), and signs of bilateral oedema.
  + Adult undernutrition is assessed through Body Mass Index (BMI) (either adjusted or unadjusted by Cormic index) or MUAC in addition to clinical signs. MUAC is the preferred nutritional index during pregnancy and up to 6 months postpartum.
* The degree of **acute malnutrition in children 6-59 months** is determined by comparing their WFH to what it should be, e.g. the standard, based on the 2006 WHO Growth Standards, or the presence of bilateral oedema. The comparison is made using Z scores (also called Standard deviation or SD), and the classification is either severe acute malnutrition (SAM), moderate acute malnutrition (MAM), or no malnutrition.
* The degree of **acute malnutrition in pregnant and lactating women** is based on a specific cut-off point in the measurement of MUAC, though the cut-off point varies between contexts (prolonged poverty, emergency and disaster due to natural disasters or war and arm conflicts etc.)
* **Individuals who suffer from acute malnutrition,** especially severe, may rebound in terms of weight gain, but the impact lasts forever when this occurs in children. Mental development and growth is affected, and there is increased risk for disease in later life and productivity.
* **At the level of the population:** The (global) acute malnutrition rate for the population (GAM) is calculated by adding up the estimated percentage of the children 6-59 months who are classified with SAM and the estimated percentage of children 6-59 months who are classified with moderate acute malnutrition (MAM). (The term “global” has no geographic meaning). The percent GAM at any one point in time needs to be analyzed with caution at it represents one point in time. Analysis of the severity of the situation is strengthened by understanding how this percentage of children affected with acute malnutrition compares to previously recorded data and trends, and an understanding of other aggravating factors. The translation of acute malnutrition prevalence/rates into numbers of malnourished children (f/m) is further based on the estimate of the total child population (f/m), and therefore the actual true number of affected children (f/m) may be different.
* When the **prevalence of acute malnutrition (severe + moderate)** is more than 15% of children 6-59 months in a given population, or between 10-14% with aggravating factors, then according to WHO the situation is called “serious”.

Micronutrient deficiencies.

* Micronutrient deficiencies are also defined as malnutrition. During non-crisis conditions micronutrient deficiencies like iron deficiency (anemia), vitamin A deficiency and many others are very prevalent especially among young children and women. During an emergency, the situation is worse. It is therefore very important to address these deficiencies.

**Overview of common interventions for nutrition in emergencies:**

The following types of food/feeding interventions exist:

* General food distribution (GFD) or general food ration (GFR).
  + This is meant for the entire population. The ration is often supposed to provide at least the minimum of energy and protein required i.e. 2100 kcal per person per day. This provides the basis for improving short term food security. WFP is responsible for providing the general ration which is typically distributed by implementing partners.
* Supplementary food ration/distribution.
  + This is meant to boost the energy, protein and micronutrient intake of the vulnerable population – in practice primarily pregnant and lactating women, and children under 5 years of age. The supplementary food consists often of blended foods (mix of cereal and pulses, sometimes milkpowder, and micronutrients) such as Corn Soy Blend. WFP is responsible for providing the supplementary food which is typically distributed by Nutrition cluster partners. When WFP cannot provide the supplementary food, UNICEF as a CLA provided it within the context of a provider of last resort.

Two types of Supplementary feeding programs exist:

* + Blanket Supplementary feeding program: If the situation is very bad (when GAM% is very high) then often pregnant and lactating and children under 5 years are targeted to receive supplementary food (“blanket supplementary food/feeding”) regardless of their nutritional status. In situations where cooking is impossible (no firewood or cooking utensils) ready to eat foods like biscuits are often provided, or, as a short term measure, cooked meals may be provided as an alternative (“wet supplementary feeding”). WFP is normally responsible to provide the ration and provide technical support. If they are not able UNICEF could consider supporting this. In camps UNHCR is responsible for ensuring the ration is available.
  + Treatment of moderate acute malnutrition (MAM) through Targeted Supplementary Feeding Program: Individuals are admitted based on their nutritional status, in order to treat moderate acute malnutrition, and also avoid that these individuals will become severely acutely malnourished (SAM). The food provided includes ready to eat specialized foods like pastes such as Supplementary Plumpy, Ready to Used Supplementary Foods (RUSF) or CSB++. All nutrient requirements are included in these foods. Systematic medical treatment is also part of the protocol. WFP is responsible for the provision of the foods. If they are not able UNICEF could consider supporting this. In camps UNHCR is responsible.
* Management of severe acute malnutrition (SAM) through a inpatient of outpatient therapeutic feeding care programme
  + - SAM is a life threatening condition and treatment is meant to treat the condition and save the life. Treatment consists of a package of medical and nutrition interventions. Children with medical complications are treated first in a Stabilization Center (often in a health facility) with close supervision and medical attention, while the children without medical complications can be treated successfully at home in the community as out-patients. The food provided includes Ready to Use therapeutic food (RUTF). All nutrient requirements are included in this food. UNICEF is responsible for the provision of the foods and for the program implementation (which is carried out through implementing partners (NGOs). In camps UNHCR is responsible.
* Micronutrient interventions.
  + The interventions above provide a significant amount of micronutrients to those who need it most, and many include systematic supplmentation as part of individual treatment protocols. However, additional provision is needed of micronutrients:
    - Vitamin A supplementation to all children 6-59 months as a lifesaving intervention. Vitamin A reduces to mortality risk and is key as a priority intervention to be done in combination with measles vaccination campaign.
    - Micronutrient supplementation for children and mothers at health facility level and community level, including vitamin A, zinc, Iron-folate, mulitiple micronutrients
    - Fortified foods and it is important to ensure to ensure that all foods provided are fortified i.e. oil fortified with vitamin A, fortified blended foods, biscuits, iodized salt, etc
* Infant and Young Child Feeding in Emergencies
* Protection, promotion and support to optimum infant and young children feeding practices are very important as these practices are heavily challenged during emergency. The key actions needed are:
* Support to care takers and health workers on optimum infant and young child feeding practices including:
  + Early initiation of breastfeeding within 1 hour of birth;
  + Promotion of exclusive breast feeding for the first 6 months of life;
  + Promotion of continued breast feeding from 6 to 24 months and beyond;
  + Timely initiation of appropriate complementary feeding 6 months on wards.
* Establishment of safe areas for women to breastfeed and receive counselling
* Where appropriate, provision of Ready to Use Infant Formula (RUIF) for the few infants who have lost their mothers, under proper supervision and guidance
* Issuing of a joint statement on Infant and Young Child Feeding
* Support to policy on Breast Milk Substitute (BMS) code implementation and monitoring

• Nutrition Education linked to WASH and Health

* Information and Training support for caregivers and community mobilization and education
* Development of awareness campaigns that provide information and behaviour change communication on hygiene, health and nutrition
* Assessment, Nutrition Surveillance/Information Management and Monitoring
* Input into multi-sectoral rapid assessments
* Support to the implementation of nutrition surveys
* Supply of equipment
* Establishment/strengthening of nutritional surveillance systems and monitoring
* Monthly trend analysis of all cluster partners feeding center statistics

**Response Area and Typical Activities Undertaken:**

• Therapeutic Feeding Programme

* Provision of Therapeutic Supplies (Plumpynut, F100, F75, resomal etc.);
* Provision of Equipment such as TFC kits, measuring boards, weighing scales and MUAC tapes, registers etc.;

Provision of drugs such as amoxcicillin, anti-malarials, vitamin A, deworming and folic acid special ORS (Resomal);

* Establishment of community and facility based sites for the management of severely malnourished children;
* Training of staff on the proper management of acute malnutrition on both “out-patient” basis and inpatient basis at the “stabilization centres.”
* Targeted Supplementary Feeding Programme
* Provision of supplementary food (CSB, WSB, Supplementary Plumpy) if WFP is unable to do so);
* Provision of systematic drugs, equipment etc.;
* Establishment of Supplementary Feeding distribution sites;
* Training of government and NGO worker SFP management and individual treatment.
* Blanket Supplementary Feeding Programmes
* Provision of supplementary foods ;
* Training of health worker and NGO working on screening
* Distribution of the blanket supplementary food.
* Infant and Young Child Feeding in Emergencies
* Support to care takers and health work on optimum infant and young child feeding practices;
  + Early initiation of breastfeeding within 1 hour of birth;
  + Promotion of exclusive breast feeding for the first 6 months of life;
  + Promotion of continued breast feeding from 6 to 24 months and beyond;
  + Timely initiation of appropriate complementary feeding 6 months on wards.
* Establishment of safe areas and women service providers for women to breastfeed and receive counselling;
* Where appropriate, provision of Ready to Use Infant Formula for few cases who have lost their mothers, under proper supervision and guidance;
* Sharing of breast milk of the lactating mothers to the infants who lost their mother or whose mother cannot produce breast milk out of malnutrition or shock might be introduced through a respectful conversation with the breastfeeding mothers.
* Issuing of a joint statement on Infant and Young Child Feeding;
* Support to policy on Breast Milk Substitute (BMS) code implementation and monitoring.

• Micronutrient Deficiency Control and Prevention programme

* Procurement of Vitamin A, Zinc and Multiple Micronutrient Powders (MNP);
* Distribution of the Vitamin A, Zinc and MNP through government and NGO campaigns and routine supplementation routines;
* Training of health workers.
* Nutrition Education linked to WASH and Health
* Information and Training support for caregivers and community mobilization and education;
* Development of awareness campaigns that provide information and behaviour change communication on hygiene, health and nutrition.
* Assessment, Nutrition Surveillance/Information Management and Monitoring
* Input into multi-sectoral rapid assessments;
* Support to the implementation of nutrition surveys;
* Supply of equipment;
* Establishment/strengthening of nutritional surveillance systems and monitoring;
* Monthly trend analysis of all cluster partners feeding center statistics.
* Regular monitoring of the safety and security issues of feeding and service providing center with regards to the cases / complaints of sexual exploitation and abuse and gender-based violence by the community people, Aid workers or service providers.
* Ensure a safe secured complain mechanism exists with regards PSEA and GBV.
* Make sure that all service providers and Aid Workers have information on accountability to the affected plan (AAP) and are well conversant with the GBV pocket Guideline.

**Issues to follow**

* In Acute Emergency
* An assessment to properly establish what the nutritional situation is and determine corresponding needs is essential
* NGOs, UN and government capacity on the ground to implement programmes
* Coverage of the nutrition programme particularly women and children who are in a marginalized context.
* Availability of Nutrition supplies including food, drugs and equipment
* Ability to monitor the nutrition, food security and health situation for all affected people with regards to their age, sex, social-economic situation, people with disability, people living with HIV/AIDS etc.
* Ensuring food security including the availability and adequacy of general rations (including iodized salt and fortified grain/cereals) to the affected population
* Ensuring availability of health service and water and sanitation services as this is important is determining if the situation will deteriorate or not.
* In the recovery
* Repair and construction of nutrition rehabilitation centres for managing severely malnourished children with complications
* Build on local capacity, including community practices to ensure delivery of a comprehensive nutrition package/services
* Training of government staff on management of acute malnutrition
* Development and monitoring of adherence of guidelines for CMAM and nutrition surveys
* Development of a comprehensive nutrition response plan
* Establishment of Nutrition Surveillance system
* Livelihood support such as cash for work, food vouchers

1. **Glossary**

* **Acute malnutrition** Acute malnutrition, also known as wasting, is a sign of ‘thinness’ and develops as a result of recent rapid weight loss or a failure to gain weight. In children, it is measured through the weight for height nutritional index or mid-upper arm circumference. In adults, it is measured by body mass index or mid upper arm circumference. An individual can be moderately wasted or severely wasted.
* **Adequate basic ration** An adequate ration meets the population's minimum energy, protein, fat and micronutrient requirements for light physical activity, and is nutritionally balanced, diversified, culturally acceptable, fit for human consumption and easily digestible for children and other affected vulnerable groups.
* **Anaemia** Caused by lack of iron, folate or vitamin B 12, anaemia is difficult to diagnose accurately from clinical signs which include pallor, tiredness, headaches and breathlessness.
* **Angular stomatitis** A sign of riboflavin deficiency characterized by inflammation in the corners of the mouth
* **Anthropometric status** The growth status of an individual in relation to population reference values
* **Anthropometry** Body measurements used as a measure of an individual’s nutritional (anthropometric) status
* **Artificial feeding** Feeding of young infants with breast milk substitute
* **Ariboflavinosis** A clinical condition resulting from a deficiency in riboflavin (vitamin B2) characterized by the presence of angular stomatitis
* **Beriberi** Caused by thiamin deficiency, there are many clinically recognizable syndromes including wet beriberi, dry beriberi and infantile beriberi.
* **Bitot’s spots** Clinical sign of vitamin A deficiency characterized by dryness accompanied by foamy accumulations on the conjunctiva that often appear near the outer edge of the iris
* **Blanket feeding** Feeding of all an affected population without targeting specific population groups
* **Blended food** A pre-cooked fortified mixture of cereals and other ingredients such as pulses, dried skimmed milk and vegetable oil. Blended foods include wheat soy blend, corn soy blend and ‘faffa’.
* **Body mass index (BMI)** Acute malnutrition in adults measured using body mass
* **BP5**: fortified high-energy biscuits designed to be used in the first phase of disaster relief operations.
* **BP 100**: a nutrient-fortified wheat-and-oat bar for use in the rehabilitation and treatment phase of severely malnourished children and adults. It is especially useful in contaminated environments and in cases where no therapeutic feeding facility can be established.
* **Breastmilk substitutes (BMS)** Any food being marketed or otherwise represented as a partial or total replacement for breastmilk, whether or not suitable for that purpose
* **Chronic malnutrition** Chronic malnutrition, also known as stunting, is a sign of ‘shortness’ and develops over a long period of time. In children and adults, it is measured through the height for age nutritional index.
* **The Code** The International Code of Marketing of Breast-milk Substitutes was adopted by the World Health Assembly in 1981. There have been subsequent resolutions.
* **Colostrum** The first thick yellow milk secreted by the breasts in the last few weeks of pregnancy and the first two to three days after childbirth, until breastfeeding is established. Colostrum contains high levels of protein, and antibodies.
* **Community based Management of Acute Malnutrition (CMAM).** This approach aims to maximize coverage and access of the population to treatment of SAM by providing easier access to treatment through outpatient services, closer to homes.
* **Complementary feeding** Age-appropriate, adequate and safe solid or semi-solid food in addition to breastmilk or a breastmilk substitute. The process starting when breast-milk or infant formula alone is o longer sufficient to meet the nutritional requirements of an infant, and therefore other foods and liquids are needed along with breast-milk or infant formula. The target range for complementary feeding is generally considered to be 6-23 months.
* **Corn soy blend (CSB)** Type of blended food
* **Cretinism** Severe mental and physical disability that occurs in the offspring of women with severe iodine deficiency in the first trimester of pregnancy
* **‘Dry’ feeding** Food provided in the form of a dry (take home) ration
* **Early warning system (EWS)** An information system designed to monitor indicators that may predict or forewarn of impending food shortages or famine
* **Emergency school feeding** Food provided either as a cooked meal or supplement in school or as a take-home ration to improve school attendance and performance, and to alleviate hunger
* **Enrichment** When those micronutrients lost or removed during food processing are added back or restored in the final product (e.g., wheat flour is enriched with vitamin B1, niacin and iron)
* **Exclusive breastfeeding** An infant receives only breastmilk and no other liquids or solids, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines.
* **F-75 & F-100**: **see therapeutic milk.** F-75 is the ‘starter’ formula to use during initial management, beginning as soon as possible and continuing for 2-7days until the child is stabilised; F-100 is used as ‘catch-up’ to rebuild wasted tissues. F-100 contains more calories and protein. Both are a dry powder.
* **Follow-on/follow-up formula** Specially formulated milks for infants of six months and over
* **Food fortification** The addition of micronutrients during or after processing to a food, bringing the micronutrients to levels over and above the amounts in the original food product
* **Food security** Access by all people at all times to sufficient, safe and nutritious food needed for a healthy and active life
* **Food taboos** Food that should not be eaten on cultural or religious grounds
* **Fortified foods** Foods to which fortificants are added
* **Fortificant** The vitamins and minerals added to fortified foods
* **General food distribution (GFD) or general food ration (GFR)** Free distribution of a combination of food commodities to an emergency affected population
* **Global acute malnutrition (GAM)** Moderate and severe acute malnutrition measured by weight for height less than -2 Z scores or less than 80 per cent of the median plus oedema
* **Goitre** Swelling of the thyroid gland in the neck caused by iodine deficiency
* **Growth monitoring and promotion (GM&P)** An individual child’s growth (weight-for-age) is measured at intervals and the results plotted on a ‘Road to Health’ chart.
* **Home-modified animal milk** A breastmilk substitute for infants up to six months prepared at home from fresh or processed animal milk, suitably diluted with water and with the addition of sugar and micronutrients
* **Home-based care** Programmes to care for the chronically ill by providing support to sick people at home
* **Infant and Young Child Feeding (IYCF)** **-** Term used to describe the feeding of infants (aged less than 12 months and young children (aged from 12 to 23 months) This programme focuses on the promotion and protection of breastfeeding and exclusive breastfeeding, timely introduction of complementary feeding and continued breast feeding. Issues of policy and legislation around infant formula and breast milk substitute are also addressed by this programme.
* **Infant Feeding in Emergencies (IFE)** Infant and young child feeding (IYCF) in emergencies (IFE) is concerned with protecting and supporting optimal infant and young child feeding (IYCF) for children under the age of two years in emergency situations. This includes protection and support for early, exclusive and continued breastfeeding, reducing the risks of artificial feeding for non-breastfed infants, and appropriate, timely and safe complementary feeding. Infants who are not breastfed and who are particularly at risk in emergency settings also need protection and support.
* **Infant formula** A breastmilk substitute formulated industrially in accordance with applicable Codex Alimentarius standards
* **Infant feeding equipment** Bottles, teats, syringes and baby cups with or without lids and/or spouts
* **Inpatient care** Patients with complicated severe malnutrition (metabolic disturbances) are treated in inpatient care before continuing treatment in outpatient care. Alternative terms are Phase I, therapeutic feeding unit, therapeutic feeding centre or stabilization centre.
* **International code** The International Code of Marketing of Breast-milk Substitutes was adopted by the World Health Assembly in 1981.
* **Iodine deficiency disorders (IDD)** A range of abnormalities including goitre and cretinism
* **Kwashiorkor** Clinical form of malnutrition associated with growth failure (in children) and characterized by oedema (swelling) and loss of appetite
* **Low birth weight (LBW)** A birth weight of less than 2.5 kg
* **Macronutrients** Fat, protein and carbohydrate that are needed for a wide range of body functions and processes
* **Malnutrition** A broad tern commonly used as an alternative to under-nutrition, but technically it also refers to over-nutrition. People are malnourished if their diet does not provide adequate nutrients for growth and maintenance or they are unable to fully utilize the food they eat due to illness (under-nutrition). They are also malnourished if they consume too much calories (over-nutrition).
* **Marasmus** Clinical form of malnutrition associated with growth failure (in children) and characterized by a severe loss of body weight or wasting
* **Micronutrients** essential vitamins and minerals required by the body throughout the life cycle in miniscule amounts.
* **Micronutrient deficiency diseases(MDDs)** When certain micronutrients are severely deficient, due to insufficient dietary intake and/or insufficient absorption and/or suboptimal utilisation of the vitamins or minerals, specific clinical signs and symptoms may develop. The classic nutritional diseases, such as scurvy, beriberi and pellagra, are good examples of these sorts of disease.
* **Micronutrient malnutrition** The existence of sub-optimal nutritional status due to a lack of intake, absorption, or utilisation of one or more vitamins or minerals. Excessive intake of some micronutrients may also result in adverse effects.
* **Mid-upper arm circumference (MUAC)** The circumference of the mid-upper arm is measured on a straight left arm (in right handed people) midway between the tip of the shoulder (acromium) and the tip of the elbow (olecranon). It measures acute malnutrition or wasting in children 6-59 months. The MUAC tape is a plastic strip, marked with measurements in mm. MUAC<115 indicates that the child is severely malnourished; MUAC<125 indicates that the child is moderately malnourished.
* **Moderate Acute Malnutrition (MAM):** defined as weight-for-height between minus two and minus three standard deviation from the median weight for height of the standard reference population.
* **Multiple Micronutrient Powder (MNP**). In a little sachet to sprinkle on the food. Proposed for children 6-59 months and pregnant/lactating women in a context of food insecurity.
* **Night blindness** Inability to see well in the dark or in a darkened room. It is an early sign of vitamin A deficiency.
* **Nutritional index** Derived by relating an individual’s body measurement with the expected value of an individual of the same height (or age) from a reference population. Weight-for-height is the nutritional index commonly used to reflect acute malnutrition (wasting) in emergency nutritional assessments.
* **Nutritional requirements** The amount of energy, protein, fat and micronutrients needed for an individual to sustain a healthy life
* **Nutritional screening** Carried out to identify and select malnourished children in the population
* **Nutritional status** The growth or micronutrient status of an individual
* **Nutrition surveillance** The regular collection of nutrition information that is used for making decisions about actions or policies that will affect nutrition
* **Nutrition survey** Survey to assess the severity and extent of malnutrition
* **Obesity** A person is obese when their body mass index (weight/height2) exceeds 30.
* **Oedema** The excessive accumulation of extracellular fluid in the body. Bilateral oedema (fluid retention on both sides of the body) is a clinical sign of severe acute malnutrition, and is referred to as nutritional oedema.
* **Outpatient Therapeutic Care Programm (OTP):** outpatient care for treatment/management of malnutrition which connects treatment in the health facility with follow-up in the home and community rehabilitation.
* **Pellagra** Caused by niacin deficiency, which affects the skin, gastrointestinal tract and nervous systems and is sometimes called the 3Ds: dermatitis, diarrhoea and dementia
* **Percentage of the median** The anthropometric status of an individual expressed as a percentage of the expected value (or median) for the reference population
* **Plumpy’nut** a common ready-to-use therapeutic food (RUTF). It is a high protein and high energy peanut-based paste that tastes slightly sweeter than peanut butter. Plumpy’ Nut requires no water for preparation or refrigeration and has a 2-year shelf life, making it easy to deploy in difficult conditions to treat severe acute malnutrition. It is distributed under medical supervision, predominantly to parents of malnourished children where the nutritional status of the children has been assessed by a doctor or a nutritionist. See Therapeutic Paste.
* **Public nutrition approach** Broad-based approach to addressing nutritional problems that recognizes that nutritional status is affected by a complex mix of factors
* **Rapid nutrition assessment** An assessment is carried out quickly to establish whether there is a major nutrition problem and to identify immediate needs. Screening individuals for inclusion in selective feeding programmes is also a form of rapid nutrition assessment.
* **Ration** The ration or food basket usually consists of a variety of basic food items (cereals, oil and pulses) and, possibly, additional foods known as complementary foods (meat or fish, vegetables and fruit, fortified cereal blends, sugar, condiments) that enhance nutritional adequacy and palatability.
* **Ready-to-use infant formula (RUIF**), A type of breast milk substitute that is nutritionally balanced and packed ready to use for infants who for some reason have no options to be breastfed
* **Ready-to-eat meals,** A type of emergency ration that is a nutritionally balanced, ready-to-eat complete food. They generally come in two forms: as compressed, vacuum packed bars or tablets.
* **Ready-to-use supplementary foods (RUSF),** Specialized products for use in the management of moderate acute malnutrition. Available as pastes, spreads or biscuits. They are ready to eat and do not get contaminated by bacteria.
* **Ready-to-use therapeutic foods (RUTF),** Specialized products for use in the management of severe acute malnutrition. They are a solid version of F100 with the same macronutrient and micronutrient composition plus iron. Available as pastes, spreads or biscuits. They are ready to eat and do not get contaminated by bacteria.
* **Recommended daily allowance (RDA)** The average daily dietary intake level that is sufficient to meet the nutrient requirements of nearly all (approximately 98 per cent) healthy individuals
* **Reference population** Also known as growth standards and based on surveys of healthy children, whose measurements represent an international reference for deriving an individual's anthropometric status
* **Rehabilitation phase** The third phase of treatment for complicated SAM or initial treatment for uncomplicated SAM, its aim is to promote rapid weight gain and to regain strength through regular feeds of high nutrient and energy dense foods (F100 or RUTFs). It is ideally implemented as outpatient treatment.
* **Re-lactation** Induced lactation (breastfeeding) in someone who has previously lactated
* **Replacement feeding** Feeding infants who are receiving no breastmilk through alternative methods
* Resomal-Rehydration Solution for children with severe acute malnutrition
* **Rickets** Caused by vitamin D deficiency, it affects bone development resulting in bowing of the legs when severe.
* **Scurvy** Caused by vitamin C deficiency, typical signs include swollen and bleeding gums, and slow healing or reopening of old wounds.
* **School feeding** Provision of meals or snacks to school children to improve nutrition and promote education
* **Seasonality** Seasonal variation of various factors, such as disease, different sources of food, the agricultural cycle, that affect nutritional status
* **Selective feeding programmes** Supplementary feeding or therapeutic care programmes
* **Sentinel site** Purposively selected community or service delivery site, used to detect changes in context, programme or outcome variable. Communities or areas are purposively selected for a number of reasons, such as vulnerability to food insecurity in times of stress. Sentinel sites can range from health centres to villages to districts.
* **Severe acute malnutrition (SAM)**: is a result of recent (short-term) deficiency of protein, energy together with minerals and vitamins leading to loss of body fats and muscle tissues. Acute malnutrition presents with **wasting** (low weight for height) and/or the presence of oedema (i.e. retention of water in the tissues of the body). Defined as weight-for-height minus three standard deviations from the median weight-for-height for the standard reference population, mid upper arm circumference (MUAC) less than 115 mm, visible severe thinness, or the presence of nutritional oedema.
* **Stabilization Centre (SC):** Inpatient care facilities established for the treatment of SAM with complications.
* **Stabilization phase** The initial phase of inpatient treatment for complicated SAM, its aim is to stabilize and readjust patient’s metabolism through use of special foods (F75) and medical treatment. It allows close monitoring of the patient and urgent therapy if complications developed. It is also known as Phase I or the initiation phase.
* **Stunting** See **Chronic malnutrition**
* **Supplementary feeding programme (SFP)** There are two types of SFPs. Blanket SFPs target a food supplement to all members of a specified at risk group, regardless of whether they have MAM. Targeted SFPs provide nutritional support to individuals with MAM. To be effective, targeted SFPs should always be implemented when there is sufficient food supply or an adequate general ration, while blanket SFPs are often implemented when general food distribution (GFD) for the household has yet to be established or is inadequate for the level of food security in the population. The supplementary ration is meant to be additional to, and not a substitute for, the general ration.
* **Supplementary suckling** A technique used to induce lactation by providing therapeutic milk to the infant while he or she is suckling. When suckling, the child gets therapeutic milk from a tube attached to the mother’s nipple. Suckling stimulates breastmilk production, which eventually replaces therapeutic milk.
* **Supplementation** Provision of nutrients either via a food or as a tablet, capsule, syrup, or powder
* **Targeting** Restricting the coverage of the intervention to those identified as the most vulnerable
* **Therapeutic care** Feeding and medical treatment to rehabilitate severely acutely malnourished children
* **Therapeutic Feeding Programme (TFP)** – Is the programme that admits and treats Severely Acutely Malnourished (SAM) either at health facility level or as outpatient.
* **Therapeutic milk (see F100 and F75)** Milk-based products developed to meet the energy, macro and micronutrient needs of the severely malnourished and promote metabolic balance (F75) and weight gain (F100)
* **Therapeutic paste:** a generic term referring to lipid based products used in the treatment of severe acute malnutrition.
* **Transition phase** Second phase of inpatient treatment for complicated SAM, its aim is to adapt progressively to the large amounts of food and nutrients that will be offered in the rehabilitation phase (outpatient or inpatient) and to monitor the patient.
* **Undernutrition** An insufficient intake of energy, protein or micronutrients, that in turn leads to nutritional deficiency
* **Underweight** Wasting or stunting or a combination of both, measured through the weight-for-age nutritional index
* **Vulnerability** The characteristics of a person or group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural (or human-made) hazard
* **Wasting** See **Acute malnutrition**
* **Weight-for-age** A measure of underweight
* **Weight-for-height** A measure of acute malnutrition or wasting
* **‘Wet’ feeding** Food aid provided in the form of a cooked ration to be consumed on site
* **Wet nursing** Breastfeeding by a woman of a baby that isn’t her own
* **Wheat soy blend (WSB)** a blended food
* **Xerophthalmia** Caused by vitamin A deficiency, it includes a range of eye signs including night blindness, Bitot’s spots and corneal ulceration.