Federal Ministry of Health
National Nutrition Program

NATIONAL SUPPLEMENTARY FEEDING PROGRAMME

GUIDELINES

2011

Abbreviations

ANC	Ante-Natal Clinic
BSFP	Blanket Supplementary Feeding Programs
BMI	Body Mass Index
CSB	Corn Soya Blend
FBF	Fortified Blended Foods
GAM	Global Acute Malnutrition
GFD	General Food Distribution
H/A	Height For Age
IASC	Inter-Agency Standing Committee
IDPs	Internally Displaced Populations
\IYCF	Infant and Young Child Feeding
M&R	Monitoring and Reporting
MAM	Moderate Acute Malnutrition
MDDs	Micronutrient Deficiency Disorders
MUAC	Mid-Upper Arm Circumference
NCHS	National Centre for Health Statistics
NE	Nutrition Educators
NGOs	Non- Governmental Organizations
SAM	Severe Acute Malnutrition
SCN	Standing Committee for Nutrition
SFP	Supplementary Feeding Program
TFP	Therapeutic Feeding Program

TFC/TFU	Therapeutic Feeding Centre/ Unit
W/A	Weight-for-Age
W/H	Weight-for-Height
WFP	World Food Programme
W	Weight
UNSCN	United Nations Standing Committee for Nutrition
UNICEF	United Nations Children Fund

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Our special thanks go to the core technical revision team comprised of staff from FMOH and SMOH Nutrition, WFP UNICE and Ahfad University for Women, in the process of development, reviewing, finalization Of the National supplementary feeding program document.

I look forward to continued support of the World Food Program (WFP) in the dissemination and the rolling out of the Supplementary feeding based on this National Guidelines.

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Background

This publication is a second edition of the Supplementary Feeding Programs (SFP) Guidelines of 2006. The revision process was initiated in order to ensure the updating of national guidelines in line with advancing technology and innovations in nutrition. This includes development of additional rations, as well as the changes in assessment of malnutrition with the national shift towards the use of the World Health Organization (WHO) 2006 Child Growth Standards the revision also reflects evidence from the field, drawing on the implementation of targeted SFPs in Sudan. The WHO standards are being adopted by countries and have already been used for emergency and non-emergency programming..

The guidelines will facilitate the integration of the management of Moderate Acute Malnutrition into the primary health care system, while compliance will contribute in the overall reduction of child severe malnutrition and hence mortality in Sudan. It's also intended to be used by health and nutrition managers and health care providers working at different levels of health and nutrition service provision in all states, as well as national training institutions and implementing partners involved in training.

The guidelines will focus on children under five years, older children, adults, pregnant and lactating women and special groups (TB, HIV ….etc) are also included. There is not sufficient evidence-based research on the effectiveness of local product in management of moderate acute malnutrition to go into elaborate detail, but as evidence becomes available the guidelines will be updated.

To manage moderate acute malnutrition successfully, strict implementation of the guidelines can significantly contribute towards reducing the rate of (MAM) within a target groups.

Mandate: This document assists with practical application of guiding principles for supplementary feeding in emergency and non emergency context .its aim to assist the implementers to meet their responsibility.

Setting up supplementary feeding program

The main reason for setting up supplementary feeding programs is to prevent individuals that are at-risk of malnutrition and those that are moderately malnourished from becoming severely malnourished as well as treat those with moderate malnutrition.

SFP program can be started when:

- Results of a nutrition survey reveal a critical situation with global acute malnutrition rate of over 15% or a serious situation when the prevalence of global acute malnutrition is 10-15%, or 5-9% with aggravating factors
- The supplementary food ration is necessary to supplement nutrients not provided by the general food ration either due to inadequate quantity and/or quality.
- When an assessment indicates high crude death rates of more than 1 death per 10,000 per day and child mortality rate of more than 2 deaths /10,000/day and high morbidity rates of specific diseases such as measles and whooping cough Vitamin A and Iron deficiencies.

Types of Supplementary Feeding Program

These programs usually provide food supplement to the normal diet for moderately malnourished in emergency and non emergency context.

There are two mechanisms through which food and nutrition assistance may be provided:

- General Food Distribution.
- Selective Feeding Programs.

Targeted SFPs target mild and moderately malnourished individuals while ***blanket SFPs*** target all those in 'at risk groups' irrespective of nutritional status.

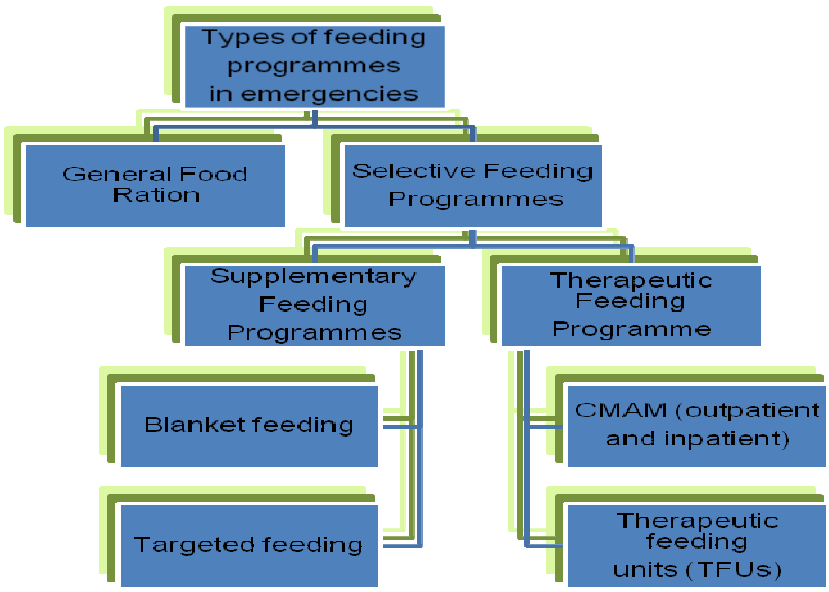


Figure 1: types of feeding program

1.1. General Food Distribution (GFD)

The objectives of a GFD at the onset of a crisis are to save lives and protect the nutritional status of the population.

General Food Distribution (GFD) is when a food ration is distributed to households affected by an emergency. It's implemented when there are acute and severe food shortages resulting in high mortality and malnutrition rates (or the risk of these).

1.2 Selective Feeding Programs

As opposed to the GFD programs Selective Feeding Programs (SFPs) are of relatively less coverage among specific groups. There are two forms of Selective Feeding Programs.

Depending on the prevalence of malnutrition and availability of partners' resources, supplementary feeding can be provided through:

1.2.1 Blanket supplementary feeding programs (BSFPs):

The primarily aim of BSFP to prevent a deterioration in the nutritional status and provide a food supplement to all members of a particular group like all children under 5 years, pregnant and lactating women. If resources are limited BSFP should concentrate on the most vulnerable groups (children under 3 years). Usually implement BSFP when 20% or more of children are malnourished or

assessment results show GAM levels of 15% or more with aggravating factors and sufficient resources including food, personnel, and logistics are available. In addition, when:

- General food distribution systems are not adequately in place and/or not covering the needs of certain vulnerable groups
- There are problems in delivering /distributing the general ration
- There are large numbers of mild and moderately malnourished
- individuals and likely to become severely malnourished due to aggravating factors
- There is anticipated increase in rates of malnutrition due to seasonally induced epidemics
- There are reported cases of micronutrient deficiency outbreaks, to provide micronutrient-rich food to the target population.

How do you select beneficiaries for BSFP?

Select all children under five years or under ten year (110cm or 130 cm in height respectively), all pregnant mothers, and lactating mothers, the chronically ill, disabled and the elderly (>60 years). The number of beneficiaries admitted in the program will depend on

availability of resources. If resources are very limited blanket feeding can be targeted to children under 2 or 3 years old.

TSFP provide a food supplement to the general population of mild and moderately malnourished individuals and for selected pregnant and lactating, other nutritionally at-risk individuals (e.g. HIV/AIDS and TB patients, disabled, elderly, orphans, street children, etc.) TSFP is implemented when malnutrition rates are 10-14% or 5-9% with aggravating factors. Aggravating factors include; general food rations below the mean energy requirement (2100 Kcal/p/d), crude mortality rate more than 1 per 10000per day, high incidence of diarrheal diseases. Other additional reasons for implementing TSFP include:

- When resources for implementing blanket distribution are scarce
- When there are discharges from Therapeutic Feeding Programs
- When there are large numbers of mild and moderately malnourished individuals reported
- When large numbers of children are likely to become mild or moderately malnourished due to aggravating factors
- High prevalence of micronutrient deficiencies in the target area.

How do we select beneficiaries for TSFP?

Select beneficiaries that meet any of the following criteria:

- The number and category of beneficiaries selected for admission will depend on the resources available Malnourished children under five years and sometimes under three years depending on availability of resources (All children that fall between >-3 to <-2 weight for height Z-score are admitted into the program)
- All discharges from the therapeutic feeding programs.
- Pregnant and lactating mothers who are malnourished
- Individuals with social disorders, unaccompanied children, the disabled, special groups.

Distribute food ration to program beneficiaries. Food rations should be distributed either as "dry" take home ration or "wet"/ on-site feeding ration. Most supplementary feeding programs, especially BSFP distribute dry ration as it is easy and requires less resource. On-site feeding is however justified when there is extreme short supply of household food, firewood, water and cooking utensils or even when the security situation does not allow beneficiaries to carry food rations home. Regardless of the type of food ration, program supervisors/nutritionists must ensure that there is an adequate food ration for all beneficiaries. Program outreach workers and community volunteers with the help of mothers should be responsible for distributing the food.

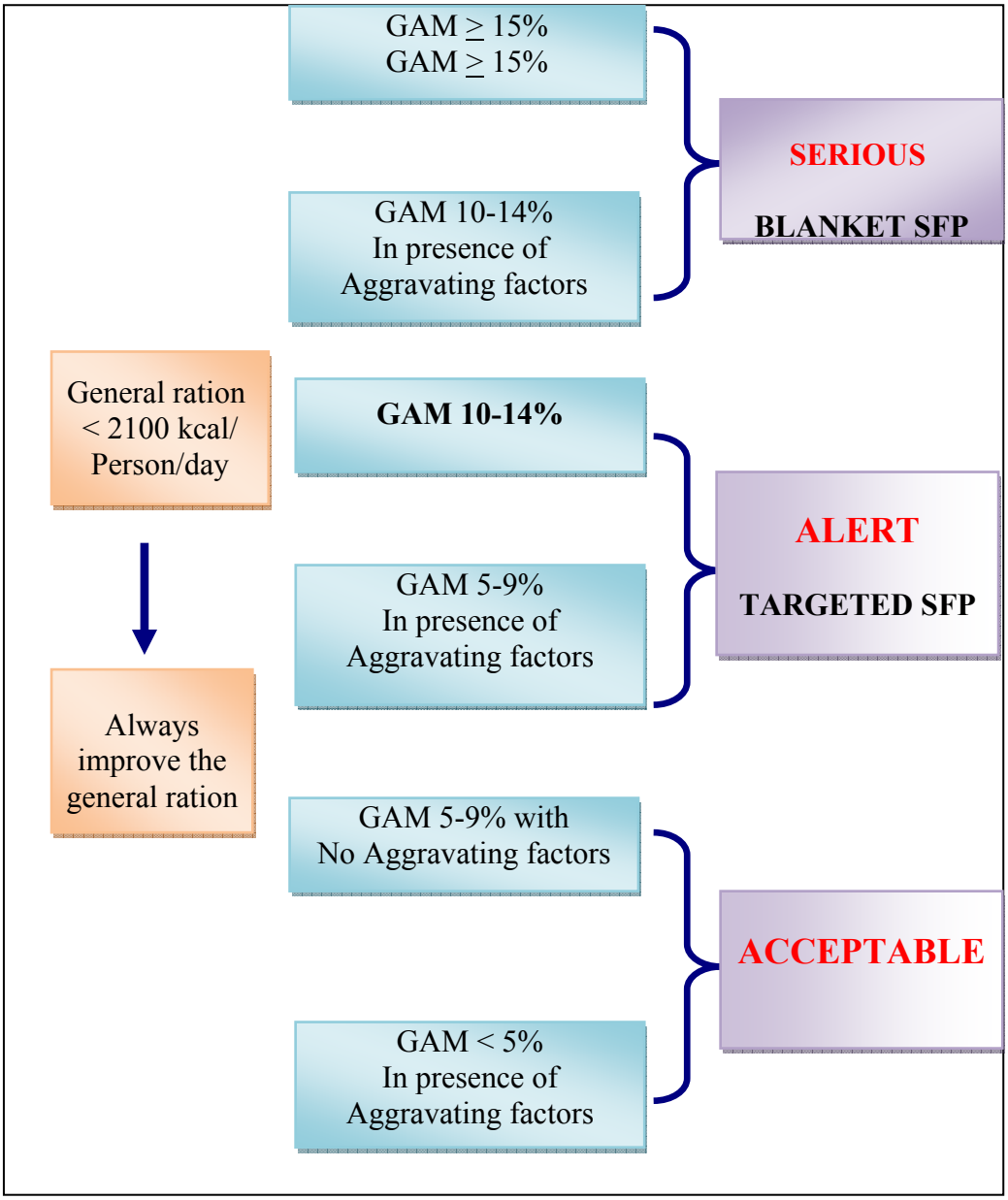


Figure2: Criteria for Deciding the Type and/or Combination of Selective Feeding Programmes Based on NCHS Reference

Principles of implementing supplementary feeding programs

1. Determine malnutrition status

1.1 Indicators for assessing Moderate Acute Malnutrition (MAM):

These guidelines follow the new WHO growth standards (as internationally recommended) which discover more children than the old NCHS /WHO reference.

The recommended indicators to assess acute malnutrition: (Annex 1: target population and type of measurement)

1.1.1.Mid-UpperArm Circumference (MUAC):

MUAC is commonly used to initially screen children (6-59 months) for admission to feeding programs, particularly in the acute phase of an emergency. It is simple to use, cheap and most acceptable to mothers. Moderate Acute Malnutrition (MAM): MUAC > 115 and < 125 mm.

Measuring MUAC WHO, WFP, UNSCN & UNICEF 2007) i

1.1.2. Weight for height (W/H):

The nutritional index of most concern because it reflects recent conditions while young children are generally the most nutritionally vulnerable. It is widely used in nutrition surveys and as a selection criterion for selective feeding programs. The 2006 WHO Child Growth Standards are recommended. *(Annex: 2)*

Table 1: Classification of Malnutrition in children based on Z-score

Z-score	Weight-for length/ Height
0 (median)	Normal
Below −1SD	Mild Wasting
Below −2SD	Wasted
Below −3SD	Severely Wasted

1.1.3 Bilateral pitting edema:

A clinical sign of severe acute malnutrition (individuals with edema cannot always be perfectly anthropometrically assessed)1. A child is considered to have nutritional edema if a depression (shallow print or pit) is left after normal thumb pressure is applied on both feet for 3 seconds.

Grade 1 (or +): Mild, both feet/ankles
Grade 2 (or ++): Moderate, both feet, plus lower legs, hands or lower arms
Grade 3 (or +++), Severe, generalized oedema including feet, legs, hands, arms and face.

Consideration

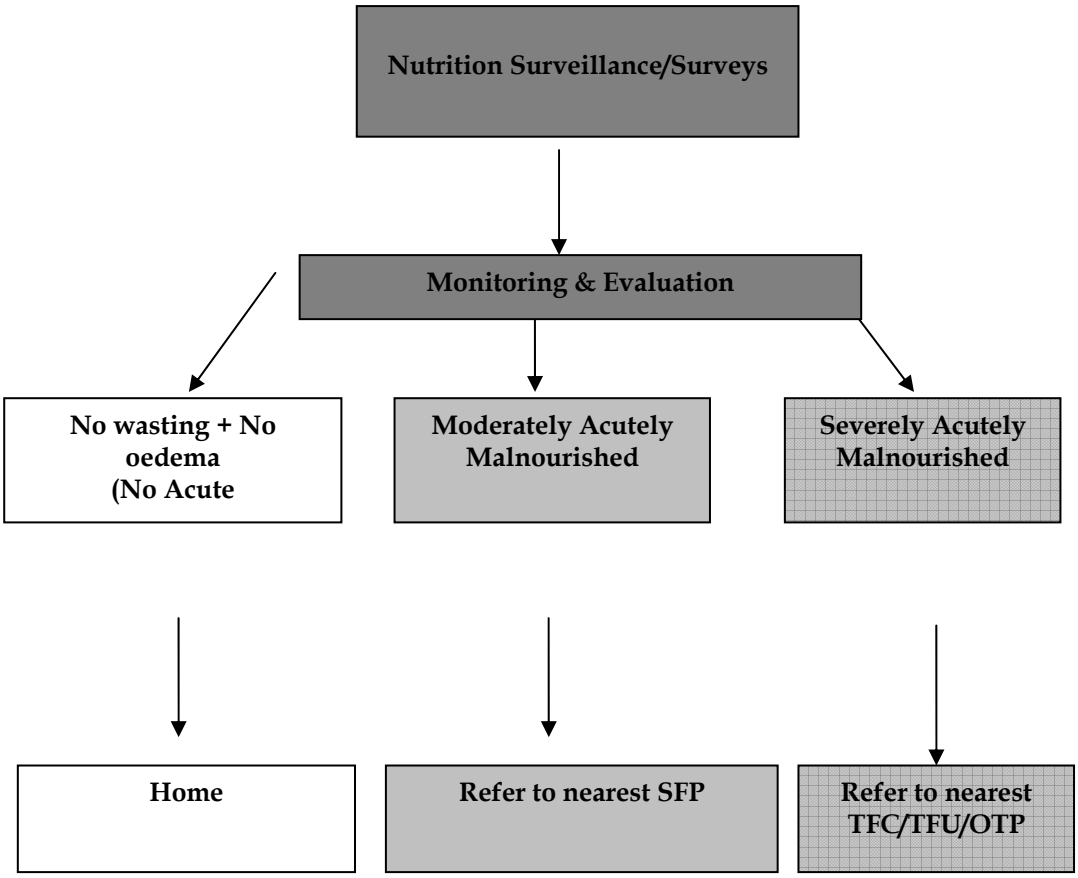
- Before taking anthropometric measurement for children 6-59 months, check for bilateral oedema, if present do not take MUAC, weight and height, instead refer to the nearest therapeutic feeding centre. All infants <6 months should not be admitted in the program but their mothers are eligible for admission if malnourished. Mother should be counseled to continue exclusive breastfeeding.

- After taking height and weight measurements use the reference tables (Annex 1) to determine Z-scores and record. Also use Table 2 to determine cut-off points for admission.

- Those children that fall between >-3 and <-2 Z-score should be referred to the registration.

- Those that are >-2 Z-score should have their caregivers counseled on proper nutrition and health practices and allowed to go back home

Figure3: Referral system of Malnutrition



Admission and Discharge criteria*:*

it is recommended to continue using current guidelines, based on minimum length of stay and/or using cut-offs in WHO standards more or less equivalent to that in NCHS reference. Admission and discharge criteria for different population groups are described in table (2).

- Before taking anthropometric measurement for children 6-59 months, check for bilateral edema, if present do not take MUAC, weight and height, instead refer to the nearest. Health facility (outpatient care)
- All infants <6 months should not be admitted in the program but their mothers are eligible for admission if malnourished. Mother should be counseled to continue exclusive breastfeeding.

Table 2: Criteria for admission and discharge based on indicators

Category	Indicators	Admission	Discharge
Children from 6 to 59 months	MUAC	≥ 115 mm and < 125 mm	>=125 mm for two consecutive visits
	W/H (length for children <2 yrs or height >2yrs)	< -2 to ≥ -3 z-score	≥-2 z score
	Odema	Oedema absent	N/A
Children >59 months to 10 years (Height from 115cm to 130 cm)	W/H Z-score	Between -3 to <-2 Z score Discharge from OTP	≥ -2 Z scores
	MUAC (mm)	≥115 & <125	-2 Z scores on 2 consecutive times
	Odema	NO Oedema	N/A
Pregnant and lactating women	MUAC (mm)	**Pregnant mother** in 2nd or 3rd trimester and MUAC 185 – 210 **Lactating mother** with child< 6 months and MUAC 185 – 210	**Pregnant mothers** Delivered: MUAC ≥ 230 **Lactating mothers** Child is > 6 months MUAC ≥ 230
Adults (> 18 years); including the elderly (>60 years)	BMI	16 – 17	BMI>185 Good clinical conditions
	Oedema	Oedema absent	
	MUAC	Men: MUAC range between ≥224 mm or ≤ 232 mm Women: MUAC ≥ 214 mm & ≤ 222 mm	≥23.2

3. Admission and Register:

- Register the patient in the specific SFP Registration Books (Under-5's and Pregnant & Lactating Women, special group (e.g.: TB, HIV, adolescence) The Registrar should gather all the necessary beneficiary information from the screeners, register the malnourished individual and issue out a ration card . The following information needs to be determined and recorded MUAC (cm), Weight (kg), Height (cm):

- Weight-for-Height and Target Weight .

- Vitamin A, De-worming, Iron/Folic Acid (treatment given: y/n, dosage)

- Measles Vaccination Y/N

A good registration system allows both close monitoring and successful management of individuals and also provides information for the compilation of appropriate indicators and statistics to monitor the functioning of the feeding program.

1. Prepare individual SFP cards (Under-5's and Pregnant & Lactating Women) (Annex 4-2). The following information needs to be determined and recorded:

Table 3 Information of SFP card

Under-5's	**Pregnant & Lactating Women**
▪ Card number (identification number)	▪ Card number (identification number)
▪ SFP Centre Name	▪ SFP Centre Name
▪ Name & Carer's Name	▪ Name & Surname
▪ Sheikh Name	▪ Sheikh Name
▪ Age (months)	▪ Age (years)
▪ Sex	▪ Pregnant or Lactating (indicate which)
▪ Date (of admission, follow-up, discharge)	▪ Date (of admission, follow-up, discharge)
▪ MUAC (cm), Weight (kg), Height (cm)	▪ MUAC (cm)
▪ Weight-for-Height and Target Weight (weight at W/H =85%)	▪ Ration (indicate receipt)
▪ Vitamin A, Deworming, Measles, Iron/Folic (indicate treatment/receipt)	
▪ Ration (indicate receipt)	

4. Routine Treatment

A nurse/ medical assistant should check medical conditions, immunization status, and anemia then record the information.

In the absence of medical assistant/clinician, all beneficiaries with common ailments should be referred to the nearest health facility.

- Pregnant and lactating women do not get routinely dewormig. And pregnant women should NOT be given Vitamin A. Vitamin A is given postpartum, within six weeks after delivery only.
- Supplementation should be given according to WHO and national guidelines
- Give treatment for uncomplicated malaria. This should be in-line with the national protocols. (If medical assistant / clinician available) and administer systematic treatment such as de-worming, iron and vitamin A supplementation or multiple vitamin supplementation and measles vaccination according to protocols.
- Record all treatment in the register and ration card. Indicate in the ration card if there is follow up treatment and inform the beneficiary of the date and place. Explain to him/her the reason for follow-up treatment. (annex 5-1,5-2 Routine treatment)

5-Nutritional Counselling

Nutritional counseling, Health and Nutrition education sessions should be arranged for those caretakers or individuals that need additional information to improve their nutritional and health status. Counsel caregiver and explain the meaning of the systematic treatment as well as additional food ration that will be given.

Health and nutrition educational messages and demonstration sessions should be conducted by the nutrition educator and assisted by outreach workers. The educator can identify the problem affecting the beneficiary. A problem can be identified through counseling or after needs assessment has been conducted. The messages can be translated into the local language including CSB/UNIMIX/local food recipes.

Food ration

1. Distribution of food ration*:*

The ration can either be distributed as a ration that is taken home and prepared, or can be distributed through on site feeding.

1.1 Take-home/dry ration is usually provided at a social community centre or at a Mother and Child Health (MCH) clinic (WFP, 2007)[2] Dry food rations can be provided weekly, every two weeks or monthly. The frequency of provision will depend on various factors such as the ease of access to SFP sites and the type of food resources being distributed. For instance various Ready-to-Use Supplementary Foods (RUSF) are available which have different nutritive values per 100 g and different packaging forms (individual spread sachets, pot containers or biscuits designed to supply the weekly needs of SFP

1.2. On-site feeding consists of daily distribution of cooked food/meals at feeding centers. The number of meals provided can vary in specific situations, but a minimum of one meal per day should be provided to children or other groups. On-site feeding/wet ration requires a special centre where cooking and eating take place on the same premises on a daily basis. An on-site feeding is

[2] WFP , Food Distribution guidelines , Rome, World Food Programme, 2007.

provided as a porridge mixture. On-site feeding may be justified when:

- Food supply in the household is extremely limited so it is likely that the take-home 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 weekly supplies of food.
- There are a large numbers of unaccompanied/orphaned children or young adults.

Take Home versus On-Site Feeding

Dry take-home rations, distributed on a weekly or bi-weekly basis, are preferred to on-site feeding but their size should take into account household sharing. On-site feeding may be considered where security is a concern. Where fuel, water or cooking utensils are in short supply, such as in populations which are displaced or on the move, distribution of ready-to-eat foods may be considered in the short term, provided they do not disrupt traditional feeding patterns. For take-home feeding, clear information should be given on how to prepare supplementary food in a hygienic manner, how and when it should be consumed and the importance of continued

breastfeeding for children under 24 months of age and regular monitoring and home visit from community volunteer should be considered at home level.

2. Recommended Amount of food ration :

Food must be energy dense and rich in micronutrients, culturally appropriate, easily digestible and palatable. Usually, a blended food (composed of pre-cooked cereals and legumes), fortified with micronutrients such as Corn Soya Blend (CSB), Unimix, and Famix is being used, in order to local product (local indigenous food).

In situations when cooking may not be feasible, ready to eat items, such as high-energy biscuits, can be used. Energy density is an important feature of a suitable food for Supplementary Feeding Programs.

Energy-dense supplementary food must contain at least 100 kcal per 100 grammes with at least 30% of the energy coming from fat.

- On-site feeding or wet ration should provide from 500 to 700 kcals of energy per person per day, including 15 to 25 g of protein. The food commodities provided could include blended food, oil, sugar, cereals, high energy biscuits and pulse. Take-home or dry ration should provide from 1,000 to 1,200 kcal per person per day and 35-45 g protein. (Table 4, example of daily rations.

Table 4: Examples of typical daily rations for ESFPs (in grams per person per day)

	Take-home rations		Onsite rations				
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Fortified blended food	250	200	100			125	100
Cereal					125		
High energy biscuits				125			
Oil fortified with vitamin A	25	20	15		20	10	10
Pulses			30		30		
Sugar	20	15				10	10
Iodized salt			5				
Nutritional Value							
Energy (kcals)	1250	1000	620	560	700	605	510
Protein (grams)	45	36	25	15	20	23	18
Fat (grams)	30	30	30	30	28	26	29

Source: World Health Organization, *the Management of Nutrition in Emergencies*,WHO, 2000.

3. Types of food commodities:

There are various types of food commodities that can be distributed to moderately malnourished individuals. Table (5) gives a summary of the type of food items and recommended quantities. Program supervisors should calculate the amount of food per beneficiary and share the information with the food distribution team.

Table 5: Food commodities for supplementary feeding program

No.	food Comodoties	Description	Quantity/person /day
	Recommended local food for supplementary feeding program		
1	Blended Cereals + pulses		Table 4
2	Porridge	Supplementary porridges can be made at home by mixing one part of blended cereal with three parts of water and by cooking the mixture until it has boiled and the consistency has thickened. Combined mineral and vitamin mixes should be added to blended cereals	Table 4
3	CSB/UNIMIX	Both based on a cereal (usually maize), soya blend. The blend is fortified with micronutrients each product has slightly different micronutrient profile and suitable for malnourished children, pregnant and lactating women. International guidelines recommend that Sweet CSB/UNIMIX are mixed with oil (and sugar if not already included) prior to distribution to ensure the high energy density of the resulting porridge. Hygiene conditions must strictly be observed during Pre-mixing and packing.	200-250g for dry ration & between 100-150g for wet rations. If distributed as premix for dry ration mix 200g CSB+25g oil+20g sugar. For wet ration combine 125g CSB +10g oil +10g sugar

***Table 5** (Con)*: Food commodities for supplementary feeding program

No.	food Comodoties	Description	Quantity/person /day
	Recommended local food for supplementary feeding program		
4	Supplementary Plumpy®	New ready to use product designed specifically for the Management of moderate acute malnutrition with the similar advantages to RUTF (Plumpynut) e.g. high energy density. Has important logistical advantages, small risk of microbial contamination, does not require pre-mixing and can be used at home. Recommended for children 6 – 59 months	Give the child one sachet (92g) to eat every day in addition to breast milk & other food the child eats at home. Clean drinking Water must be offered with the Supplementary Plumpy
5	Plumpynut	High quality fortified food that is designed for the treatment of severe acute malnutrition. It is can be used at home without pre-mixing and can be used as a temporary option in the absence of a Ready to use Supplementary Food (RUSF) or Fortified blended foods (recommended food)	Similar to RUSF, give one sachet to eat per day.Water must be offered with the Plumpy Nut
6	BP5	This is a fortified compressed food which is eaten directly from the package as a biscuit or can be crushed and used as porridge. Can be used as a replacement for CSB/UNIMIX but not specifically designed for this purpose, thus should not be used as replacement for more than three months. 100g of BP5 provides minimum 458kcal,15.5g fat and 16g protein	Six bars of BP5 biscuits (330g) will provide all the necessary nutrients. Provide 100-150 mls water for every two biscuits consumed.

*CMV can be added to beneficiaries on recommended daily ration, it might be helpful to avoid decrease in amount due to family sharing.

Recommended food for infant and children 6 month to 59 month:

- Breast milk continues to be an important source of nutrients up to age 2 years of age and beyond. However, your baby needs other foods and liquids in addition to breast milk once he/she reaches 6 months.
- Staple foods give your child energy. These foods include cereals (sorghum, rice, wheat, maize, millet), roots (cassava, potato) and starchy fruits (plantain, breadfruit). Staple foods do not contain enough nutrients by themselves. You also need to give a pulse, animal-source and other nutritious foods. (annex12: Preparing khichuri- Home-based Food)
- Your child should eat a variety of foods. Feed your child different foods from the groups along with the staple food.
- Distribute non- food items

Food and non-food items (NFIs) are vital to people's survival, health, well-being and dignity.

Most non- food items are distributed on admission, except for consumable items such soaps that can be provided to beneficiary on each visit.

Non- food items such as mosquito nets, soap, blankets tents, buckets can also be distributed depending on availability and the need of the beneficiary. For instance in malaria endemic areas, pregnant and lactating mothers and children under five years will need to sleep under mosquito nets as a preventive measure against malaria.

Management of SFP centers

There is a wide range of issues that need to be considered in the management of SFP programme planning and monitoring.

1. Planning of SFP *:*

1.1 Determining caseloads

There is a need to determine the estimated monthly caseload and estimated monthly admissions. Monthly caseload refers to the total number of children enrolled in the centre at that point in time (month). The new admission number is generally smaller than the total caseload number, since beneficiaries are generally enrolled in the program for more than two months. When it comes to reporting, admissions of beneficiaries gives the total number of children served, while at the same time, the total caseload is needed in order to form the basis for calculation of the supplies.

The estimated prevalence of moderate acute malnutrition and the estimated coverage of the programme:

While nutrition survey data give a prevalence of acute malnutrition that refers to a specific point in time, as opposed to incidence over one year. At this point in time a correction factor of 1.6 has been used to convert prevalence into incidence.

For example, if there is a locality with 25,000 children under five, and an estimated prevalence of MAM of 10%, at any one point in

time, 2,500 children could be eligible for admission into an SFP. Over the period of one year, an estimated 2,500 x 1.6 or 4,000 children might be eligible.

The next step is to determine what proportion of those the program will be able to reach. According to Sphere standards, there are targets for program coverage, e.g. the proportion of children who are in the program out of those that should be in the program (e.g. meet the criteria.

Coverage can be affected by the acceptability of the program, location of distribution points, security for staff and those requiring treatment, waiting times, service quality and the extent of home visiting. Distribution centers should be close to the targeted population, to reduce the risks and costs associated with traveling long distances with young children and the risk of people being displaced to them. Affected communities should be involved in deciding where to locate distribution centers. The final decision should be based on wide consultation and on non-discrimination.

In general, program should aim to meet the Sphere standards of coverage:

- >50% in rural areas,
- >70% in urban areas and
- >90% in a camp situation

So in the case above, if the locality is a rural area, then the coverage should be 50%, or in this case 4,000 estimated beneficiaries in one year x 50% = 2,000 children. Of course the actual coverage may rise or fall as a result of various factors in service delivery and health seeking behaviour, but population based planning figures is essential for adequate planning of supplies and staff.

1.2 Determining number of sites

Once the number of beneficiaries is calculated, then there is a need to determine the number of distribution points for the ration. Program can range in size, but the distance that it takes for the beneficiaries to attend, the number of staff, security, etc… must all be taken into consideration in determining the number of sites. Generally the more sites that there are, e.g. the more decentralized the program, the more likely it is that coverage will be higher than in the case of fewer sites that are farther away from beneficiaries. For guidance, the Sphere standard is that:

More than 90% of the target population is within <1 day's return walk (including time for treatment) of the distribution centre for dry ration supplementary feeding program and no more than 1 hour's walk for on-site supplementary feeding program.

1.3 **Determining frequency of visits/distribution days**:

In general, SFP activities (e.g. distribution) are conducted on a weekly basis and should be adopted under ideal conditions; however seasonality factors and other constrains may limit the vending of SFP rations fortnightly. distribution days and other activities in the SFP is done on weekly bases but sometimes and in certain circumstances conditions might change it to be fortnightly and in this case rations should be adjusted, e.g. the beneficiaries should be given double rations .

Following staff availability, accessibility and acceptability conditions, the distribution days of SFP rations should match local calendar and days convenient to the community such as predetermined market days.

1.4. Minimum requirements/capacity to open a program

Once the need to establish an SFP has been taken based on evidence, there is a need to ensure that there is adequate capacity on the ground to establish and run an SFP. This includes consideration of staffing levels, program management, supplies (ration and micronutrients) and site specifications.

1.4.1. Staff:

The minimum staff needed and the roles are below, based on an estimate of a monthly caseload (e.g. in charge, not new admissions)

of 200 children. Staffing levels can of course be higher if there is staff available or if there are conditions on the ground that might require additional support, and in some cases, other cadres of staff may be required to carry out the specific roles listed.

Cadre Roles and responsibilities:

Role (Cadre)	Roles and responsibilities
Supervisor (Nutritionist) (1)	• Overall responsible for the function and daily running of the centre, including adherence to the protocols • Manage the human resources, centre and food and non food items • Calculate the stock needs (food and non food), equipment needs, educational materials, etc • Supervise the nutrition educators performance • Prepare the monthly reports
Admission staff (Nutrition educator) (3)	• Responsible for admissions and discharges • Take the measurements (MUAC, Weight, Height) • Determine age and detect for edema • Register the beneficiaries • Explain to the mother the reason for admission • Give routine medicines (vit A, deworming, iron folate) according to the protocols (including checking for vitamin A and deworming in the last 6 months) • Identify any defaulters and inform the CHW/ Home visitor/ nutrition educator to follow up on them identifying the reasons for defaulting where possible. • Give Health & Nutrition talk/lessons • Supervise the food distributions • Organize cooking demonstrations at each distribution if possible • Prepare the fortnightly report
Medical care (Health staff, e.g. doctor/ nurse/ medical assistant) (1)	• Perform routine medical screening of new admissions and medical screening of non responders and refer if required
Vaccinator (1)	• Check the measles vaccination and administer if needed
Midwife (if pregnant and lactating women	• Providing antenatal care for pregnant women, including administration of iron/folate as

are a target group) (1)	part of routine medicine • Providing postpartum vitamin A
Sanitary overseen (1)	• Monitor hygiene and sanitation situation of feeding centre
Community Outreach Supervisor (1)	• Observing the community outreach activities of individual staff and/or volunteers • Reviewing community outreach activity records • Guide the community outreach workers on which children/areas need to be covered that month • Monitor the activities of the community outreach workers • Provide technical support and supervision to the community outreach workers, including facilitating training
Community Outreach workers* (Camps) (Community health promoters (CHPs)/ Home visitor/ nutrition monitors/ community mobilisers) (1 per 500 population)	• Find the defaulters and encourage them to come back • Screen children at triage or household level and refer if found to be moderately malnourished • Social mobilization within community about the SFP/other nutrition programmes • Monitoring sanitary conditions at household level • Delivering health and nutrition key messages at household level
Community Outreach workers* (Rural) (Community health promoters (CHPs)/ Home visitor/ nutrition monitors/ community mobilisers) (1 per 500 population)	1 outreach worker /500 populations at both camp & rural contexts
Food Distributor (2)	• Prepare pre mix (weigh and mix) hygienically • Distribute the individual rations
Cleaner (2)	• Ensures the cleanliness of the centre
Guard (1)	• Ensure the security of the centre, day and night

*Should be from the same community or area of intervention. Community Outreach worker number depends on several factors like the approach of case finding, population density, area involved (Camps, rural or Urban) health facility coverage, access , acceptability and more significantly the GAM and MAM rate, and the average number of Community outreach workers.

The senior staff of the national SFP should generate a clear and attainable program for the training of the supervisors of different localities within each state, including advanced techniques and refreshing components, needed for the smooth running of SFP facilities. Supervisors' checklists for the human resources should be considered in evaluation of performance of each staff member. Staff promotion should be based on evidence generated from records..

Note: added numbers of pregnant and lactating women are to be considered in SFP facility, observing the admission criteria.

1.4.2 Supplies

Ration:

Rations should observe the dietary need of the age group of the affected individuals as per energy, protein, carbohydrates, minerals and vitamins needs. Dry supplements should be distributed as a premix rather than as separate ingredients to avoid use for other purposes. Mixed foods can be stored at home up to 2 weeks at a time.

Storage and handling of food items

A stock control system must be put in place and review regularly.

Store keeper must be aware on storage and handling of supplementary food commodities and check for damage or expired food items .

1.4.3. Equipment and supportive materials

For an estimated caseload of 200 children per month, there is a need for:

- 2 Mid-Upper Arm Circumference (MUAC) tape
- 2 Height/Length board
- 2 Salter scale (25kg)& Weighing pants
- 1 Uniscales – Electronic scales
- 2 Weight-for-Height Chart
- Registration and recording
- 100 Ration cards for under-5's
- 200 Ration cards for pregnant and lactating women
- 1 Registstration book for under-5's
- 1 Registration book for pregnant and lactating women
- 200 Screening form
- 200 Referral forms
- 1 Calculator
- 1 Stationery Kit - (5 Pens, 5 pencils, 2 erasers,2 ruler)
- 2 Bucket/Basin
- 6 Measuring cup/Scoop
- 60 Soap
- Feeding and cooking equipment for wet supplementary feeding

- Mixing and distributing equipments for dry supplementary feeding
- Route in medicine table
- Summary admission – discharge criteria
- NCHS/WHO Reference table.
- Nutrition education messages

1.5 Site Specification:

The centre must contain room for the register in this room there must be a weighing machines for children and adults and height board, we need also a medical room that contain all medical materials like stethoscope, sphygmomanometer, thermometer, tongue depressors and all other medical materials. Also we need a distribution room contain the supplementary feeding ration prepared and ready to be distributed for the beneficiaries and there must be a trained staff to tell the caretakers how to use it. The centre also should contain a store for the food items and another store for the non food items

An ideal centre should have the following:

- Building of three parts; namely an administrative part, storage section and shelter for the recipient beneficiaries. A compound should be constructed around the centre.
- Ventilation and safety of walls, floors and ceiling is essential.

- Potable water should be provided all over the day, with reasonable hygienic storage, as per SSMO and WHO standards.
- Sanitary latrine with access to clean water for hands washing
- Basic furniture to suit the purpose.
- Measuring tools, digital scales, height boards, MUAC tapes and other basic equipment should be adequate, with clear calibrations. All programmes should follow the national guidelines for such needs
- Educational material such as posters and other stationary materials should be adequate to the work load of the facility.
- Continuous monitoring of ventilation, cleaning of walls, floor and ceiling and water proofing over the rainy season is a must for keeping the stocks.
- Minimum safety against fire and theft should be observed, especially for the storage quarter

1.6 Criteria for closing an SFP program

From the outset, clearly defined and agreed objectives and criteria for set-up and closure of the program are established. Targeted SFP can be closed when the following criteria are satisfied

- General food distribution is adequate (meeting planned nutritional requirements).
- Prevalence of acute malnutrition is below 10% without aggravating factors.
- Control measures for infectious diseases are effective.

- Deterioration in nutritional situations is not anticipated; i.e. seasonal deterioration
- Low mortality rates

1.7 Plan for Home-visits:

Program outreach workers /community volunteers should take up the responsibility of following up program beneficiaries that are recorded as absent or defaulted. A patient that misses an appointment is considered an absentee and must be followed by the outreach worker and reasons for lack of visit established. This patient should be encouraged to return to program. A patient is reported to be an absentee if he/she fails to attend a follow-up visit once and said to be a defaulter if absent for more than 3 consecutive visits for bi-weekly distribution and 2 consecutive visits for monthly distribution.

2. Monitoring and reporting

A well-designed M&R system is an essential component in the management of MAM. With well-informed monitoring data, aspects of the management of MAM that need improvement can be identified in a timely manner. Monitoring is the periodic oversight of the implementation of an activity to establish the extent to which input deliveries, work schedules, other required actions and targeted outputs are proceeding according to plan, so that timely action can be taken to correct deficiencies detected. Monitoring is used to measure the monthly performance and report on effectiveness.

This section on the MAM M&R system presents the specific M&R tools, describes the key indicators and provides guidance on support and supervision and minimal reporting.

1. Monitoring at the level of the individual

1.1 .Registration

1.1.1. Registration Number:

All new admissions should receive a MAM Registration Number. The MAM Number consists of the date of admission (first contact with health facility) and the serial registration number of the health facility and should be used on all monitoring and referral forms pertaining to the child.

The MAM Number is indicated on the Growth Monitoring (GM) card that is provided to all children upon admission for treatment of

MAM. If a caregiver loses the card, the card should be replaced and all efforts made to find the original MAM Number from the registration book on date of admission.

1.1.2 Registration Book

All children with MAM that present themselves for services are registered in the regular registration book of the health facility.

As such, the heath facility records admissions for inpatient care and outpatient care, and each weekly visit for outpatient care in their regular registration book. The registration book monitors admissions discharges as well as ration distribution.

The following basic information is recorded: (see format in Annex 3&4)

- Registration number
- Date of admission
- Name, Age, Sex, address
- Place of residence
- Type of admission (N=New, Re = Readmission, D=Discharge from OTP)
- MUAC = Mid Upper Arm Circumference
- Odema
- Food aid
- Other vital signs

1.1.3. Individual Record Cards

Individual monitoring information of the child's health and nutrition condition is recorded on treatment cards. This individual monitoring is important in determining the progress of the treatment, and, in case of a sudden deterioration, responding with a life-saving intervention. Weekly/Bi-weekly monitoring is needed for the beneficiary with MAM. Analysis of the individual treatment cards helps in monitoring the progress in identifying and highlighting problems which might contribute to failure to respond to treatment. These cards facilitate follow up of defaulters, and are useful to monitor the effectiveness of the program.

When an eligible child arrives at the centre the health worker begins to fill out an individual card. All cards should be kept in a file. These cards are stored once the patient is discharged. It is also important to systematically review the individual treatment cards during supervision visits to ensure that proper treatment is given and that protocols are being adhered to. Refer to nutrition specialist or medical personnel who have enough experience in the work of the SFPs.

1.1.4 .Ration Cards

A ration card should be given to each child admitted into an SFP. They include key information about the child and basic information

on their progress (weight, height, ration received) and should be updated on each visit. These cards should stay with the carer as a record of the child's progress. Carers should bring the card with them to the site each week. It is advisable to give a non-removable wristband to the child marked with his or her registration number and/or name.

1.1.5 Referral Slips

There are several types of referral, both into and out of the SFP programme

- Community outreach workers will screen, identify and refer individuals to the SFP programme .
- If the child is referred from an SFP programme for further medical care (annex 14)

1.1.7 Discharge slips

Discharge from SFP and referral to GMP (Annex 7)

5.3. Monitoring at the level of SFP programme

Monitoring is used to measure the monthly performance and report on effectiveness. Performance indicators of interest are related to recovery (cure rate), case fatality (death rate), defaulting (default

rate) and non-recovery (non-recovery rate). Barriers to access for care and the degree of service uptake (coverage rate) indicate how well the service or program is reaching the target population and meeting the service needs.

a. Tally Sheets

At the end of each programme day, the health worker or supervisor fills in a tally sheet that records the activity of the day and the outcomes (number of admissions, number of children seen, defaulters, number of discharged cured, the name of the health facility and type of SFP service is indicated. The information is compiled at the end of the month for preparing a monthly statistical report of the centre. One tally sheet is used per service per month. Per each age group, the numbers of beneficiaries who are admitted, discharged or referred are counted on it.

Each health facility with a SFP site should send the monthly statistical report to the SFP and/or NIS focal person at the locality level on a monthly basis, who then compiles the reports and sends them to the state level, which are then sent to the federal level.

Tally sheets should be stored at the site level for a period of three years-*They provide information on weekly new admissions, old cases admitted, discharges, internal movements and total under treatment.

b. Monthly Statistical Report

Monthly reporting includes a statistical and narrative component. The information from the registration books and tally sheets are compiled into monthly statistic report formats (Annex 10). The information is then used to calculate the proportion of children 6-59 months that are discharged in each of the exit categories, which is then compared against performance thresholds to assess the effectiveness of the SFP. (Note that performance statistics are not calculated for other age groups as there are currently no standards for other age groups).

The definitions for types of exit from the SFP are:

- CURED: Child 6-59 months meets discharge criteria
- DIED: Child dies while in supplementary feeding
- DEFAULTED: Child is absent for 3 consecutive sessions
- NON-RECOVERED: Child does not reach discharge criteria after 3 months in treatment (medical investigation previously done)
- REFERRED TO OUTPATIENT OR INPATIENT CARE (Medical Transfers)): Child's health condition is deteriorated and child meets outpatient or inpatient care admission criteria

Each of these rates is calculated using the number of patients recovered, died, or defaulted, etc. divided by the total number of discharges during the month. While it is normal practice to calculate these rates by only using the number of patients that recovered, died or defaulted as the denominator as outlined in the sphere guidelines,

the true performance of the centre can only be assessed if the total number of discharges is used as the denominator..

The monthly narrative report should cover:

- Identification of the centre, month, agency, supervisor, etc.
- Scale of service- e.g. Number and type of admissions.
  - New admissions: patient directly admitted to the programme
  - Old Cases: Transfers in / referrals from another facility and returned defaulter - in the last two weeks (in inpatient care) or in the last two months (outpatient care or supplementary feeding).
- Key performance indicators, e.g. Number and type of discharges

Cured, Dead, Defaulters, Non-responder, Medical transfers:

- Total number of patients under care at the beginning & end of the month.
- Community outreach reporting, e.g. results of defaulter tracing, etc
- Operational issues related to achievements, action plans for coming month and support needed/planned, stock reporting, premises issues, staff performance, constraints and ways they were addressed
- Additional contextual information in terms of changes in the catchment area that may have impacted the SFP

Some information may be collected monthly or periodically if considered useful:

- Reasons for absenteeism, default, and non-response to treatment, and relapse
- Common causes of death
- From sites, calculated on all or a sample of treatment cards from discharged cured beneficiaries in a particular month
- Average length of stay (LOS) (expressed in days), e.g. Average duration of stay in the program of children discharged as cured which is the sum of length of stay for each child divided by the number of children cured. Average daily weight gain (expressed in g/kg bodyweight/day) e.g. Average weight gain of children discharged as cured, which is the sum of weight gains divided by the number of children cured
- Categories of admission, e.g., bilateral pitting edema

Table 6: Indicators for Supplementary Feeding Programmes for Children

Indicator	Description	Formula	Units	Standard
Recovery rate	Proportion of U5 exists from SFP due to recovery	No of 6 – 59 months recovered/Total No. of U5 exits (recovered, died, defaulted)x 100	%	> 75%
Death rate	Proportion of U5 exits from SFP due to death	No. U5 deaths/Total No. of U5 exists (recovered, died, defaulted) x 100	%	< 3%
Default rate	Proportion of U5 exits from SFP due to default	No of U5 defaulters/Total No. of U5 exits (recovered, died, defaulted) x 100	%	< 15%

Mean length of stay	Average length stay for recovered children	Sum No. weeks of admission of recovered children 6 – 59 months/ No. 6 – 59 months exists due to recovery		< 3 months
Average weight gain	Average No. grams that recovered children gained per Kg per day since admission into SFP	Sum [(weight on exit (g) minus minimum weight(g))/(weight on admission (kg)) x duration of treatment (days)] / No recovered children This should be presented by category (marasmus or kwashiorkor) of the recovered children.	g/kg/day	>=3g/kg/day

The typical criteria used for judging the success of SFP are:

SFP indicators	Acceptable	Alarming
Recovery rate	>75%	<50%
Death rate	< 3%	> 10%
Defaulting rate	< 15%	>30%

c. Monitoring and Reporting on Commodity Distribution

Commodity distribution reports should be prepared. They should include quantitative information about the project including:

- Actual number of beneficiaries disaggregated by sex and age group
- Breakdown of stock movement including:
  - Commodity type
  - Opening stocks
  - Receipts
  - Distributed quantities
  - Food returns
  - Food losses
  - Closing balances
  - Loss reasons.

d. Community outreach reporting

This report should be done by the supervisor of community outreach team from the data collected by his team.

e. Supervision

This form should be filled monthly by the nutritionist in charge (the supervisor)

i. Supervisor checklist

parameter To observe	performance	Actions to take
Site conditions		
Direct observation of water source, hygiene issues		
Direct observation of the overall structure(roofing, Aeration/ventilation)		
Direct observation of storage conditions		
Condition of Waiting area		
Basic sanitation (latrines, trash)		
Guarding and compound safety		
practice/performance		
registration book present? Filled correctly?		
individual cards present? Filled correctly?		
Site tally sheets present? Filled correctly?		
Archive of previous months information present? Organized?		
MUAC measured accurately		
Weight measured accurately		
Height measured accurately		
WFH classification done correctly		
Staff greet mothers/caregivers and are friendly and helpful		
Registration numbers assigned correctly		
Registration numbers written on all documents		
Admission/discharge is according to correct criteria		

Supplies and equipment		
IEC materials availability		
copy of the guideline available		
Availability of equipment s Mid-Upper Arm Circumference (MUAC) tape Height/Length board Salter scale (25kg) & Weighing pants Uni-scales – Electronic scales Weight-for-Height Chart Calculator		
equipment in good condition and operational Height/Length board Salter scale (25kg) & Weighing pants Uniscales – Electronic scales Weight-for-Height Chart Calculator		
Micronutrients available? Check expire dates		
Stationary/cards: Ration cards for under-5's Ration cards for pregnant and lactating women Registration book for under-5's Registration book for pregnant and lactating women Screening form Referral forms Stationery - (Pens, pencils, erasers, ruler)		
Staff		
Staff adequacy and attendance		
Are they fulfilling their assigned duties		
Communication skills in delivering the H&N messages		
Communication skills in explaining admission and treatment		
General appearance and conduct		

ii. Review performance statistics according to standards to look at trends

Archiving:

All SFP reporting documents are to be kept at each level:

- For 3 years at centre level
- For 5 years at locality level
- For 10 year at state level
- For 20 years at national level.

Annexes

Annex 1: Target population and type of measurements

Target group Type of measurement	Target group Type of measurement
Children 6 to 59 months (65-110cm) Children 5-10 years (110-130cm)	1. Take Weight and length if child is less than 24months or less than 87cm, 2. Take height if child is 24months and above or more than 87cm 3. Take MUAC measurement for children 6 months and above using child MUAC tape
Pregnant and lactating women	Take MUAC measurement using adult MUAC tape
Elderly (>60 Years)	Take MUAC measurement using adult MUAC tale

Annex 2-1

Weight-for-Height Reference Table for Children 0-23 Months How to Use It :

Length assessed lying down (up to 84.5cm),That mean if the child is more than 84.5 cm or more than 2 years we take the height (the child is standing) but if the child is less than 2 years or less than 84.5 cm we take the length (the child is lying down)

Look-Up Table for Children 0-23 Months

WHO 2006 Child Growth Standar

Boys' weight (kg)				Length [a]	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median	(cm)	Median	-1 SD	-2 SD	-3 SD
1.9	2.0	2.2	2.4	**45**	2.5	2.3	2.1	1.9
2.0	2.2	2.4	2.6	**46**	2.6	2.4	2.2	2.0
2.1	2.3	2.5	2.8	**47**	2.8	2.6	2.4	2.2
2.3	2.5	2.7	2.9	**48**	3.0	2.7	2.5	2.3
2.4	2.6	2.9	3.1	**49**	3.2	2.9	2.6	2.4
2.6	2.8	3.0	3.3	**50**	3.4	3.1	2.8	2.6
2.7	3.0	3.2	3.5	**51**	3.6	3.3	3.0	2.8
2.9	3.2	3.5	3.8	**52**	3.8	3.5	3.2	2.9
3.1	3.4	3.7	4.0	**53**	4.0	3.7	3.4	3.1
3.3	3.6	3.9	4.3	**54**	4.3	3.9	3.6	3.3
3.6	3.8	4.2	4.5	**55**	4.5	4.2	3.8	3.5
3.8	4.1	4.4	4.8	**56**	4.8	4.4	4.0	3.7
4.0	4.3	4.7	5.1	**57**	5.1	4.6	4.3	3.9
4.3	4.6	5.0	5.4	**58**	5.4	4.9	4.5	4.1
4.5	4.8	5.3	5.7	**59**	5.6	5.1	4.7	4.3
4.7	5.1	5.5	6.0	**60**	5.9	5.4	4.9	4.5
4.9	5.3	5.8	6.3	**61**	6.1	5.6	5.1	4.7
5.1	5.6	6.0	6.5	**62**	6.4	5.8	5.3	4.9
5.3	5.8	6.2	6.8	**63**	6.6	6.0	5.5	5.1
5.5	6.0	6.5	7.0	**64**	6.9	6.3	5.7	5.3
5.7	6.2	6.7	7.3	**65**	7.1	6.5	5.9	5.5
5.9	6.4	6.9	7.5	**66**	7.3	6.7	6.1	5.6
6.1	6.6	7.1	7.7	**67**	7.5	6.9	6.3	5.8
6.3	6.8	7.3	8.0	**68**	7.7	7.1	6.5	6.0
6.5	7.0	7.6	8.2	**69**	8.0	7.3	6.7	6.1
6.6	7.2	7.8	8.4	**70**	8.2	7.5	6.9	6.3

6.8	7.4	8.0	8.6	**71**	8.4	7.7	7.0	6.5
7.0	7.6	8.2	8.9	**72**	8.6	7.8	7.2	6.6
7.2	7.7	8.4	9.1	**73**	8.8	8.0	7.4	6.8
7.3	7.9	8.6	9.3	**74**	9.0	8.2	7.5	6.9
7.5	8.1	8.8	9.5	**75**	9.1	8.4	7.7	7.1
7.6	8.3	8.9	9.7	**76**	9.3	8.5	7.8	7.2
7.8	8.4	9.1	9.9	**77**	9.5	8.7	8.0	7.4
7.9	8.6	9.3	10.1	**78**	9.7	8.9	8.2	7.5
8.1	8.7	9.5	10.3	**79**	9.9	9.1	8.3	7.7
8.2	8.9	9.6	10.4	**80**	10.1	9.2	8.5	7.8
8.4	9.1	9.8	10.6	**81**	10.3	9.4	8.7	8.0
8.5	9.2	10.0	10.8	**82**	10.5	9.6	8.8	8.1
8.7	9.4	10.2	11.0	**83**	10.7	9.8	9.0	8.3
8.9	9.6	10.4	11.3	**84**	11.0	10.1	9.2	8.5
9.1	9.8	10.6	11.5	**85**	11.2	10.3	9.4	8.7
9.3	10.0	10.8	11.7	**86**	11.5	10.5	9.7	8.9
9.5	10.2	11.1	12.0	**87**	11.7	10.7	9.9	9.1
9.7	10.5	11.3	12.2	**88**	12.0	11.0	10.1	9.3
9.9	10.7	11.5	12.5	**89**	12.2	11.2	10.3	9.5
10.1	10.9	11.8	12.7	**90**	12.5	11.4	10.5	9.7
10.3	11.1	12.0	13.0	**91**	12.7	11.7	10.7	9.9
10.5	11.3	12.2	13.2	**92**	13.0	11.9	10.9	10.1
10.7	11.5	12.4	13.4	**93**	13.2	12.1	11.1	10.2
10.8	11.7	12.6	13.7	**94**	13.5	12.3	11.3	10.4
11.0	11.9	12.8	13.9	**95**	13.7	12.6	11.5	10.6
11.2	12.1	13.1	14.1	**96**	14.0	12.8	11.7	10.8
11.4	12.3	13.3	14.4	**97**	14.2	13.0	12.0	11.0
11.6	12.5	13.5	14.6	**98**	14.5	13.3	12.2	11.2
11.8	12.7	13.7	14.9	**99**	14.8	13.5	12.4	11.4
12.0	12.9	14.0	15.2	**100**	15.0	13.7	12.6	11.6

[a] Length is measured for children under 2 years or less than 87 cm height. For children 2 years or older or 87 cm height or greater, height is measured. Recumbent length is, on average, 0.7 cm greater than standing height; although the difference is of no importance to individual children, a correction may be made by subtracting 0.7 cm from all lengths greater than 86.9 cm if standing height cannot be measured.

Annex 2-2

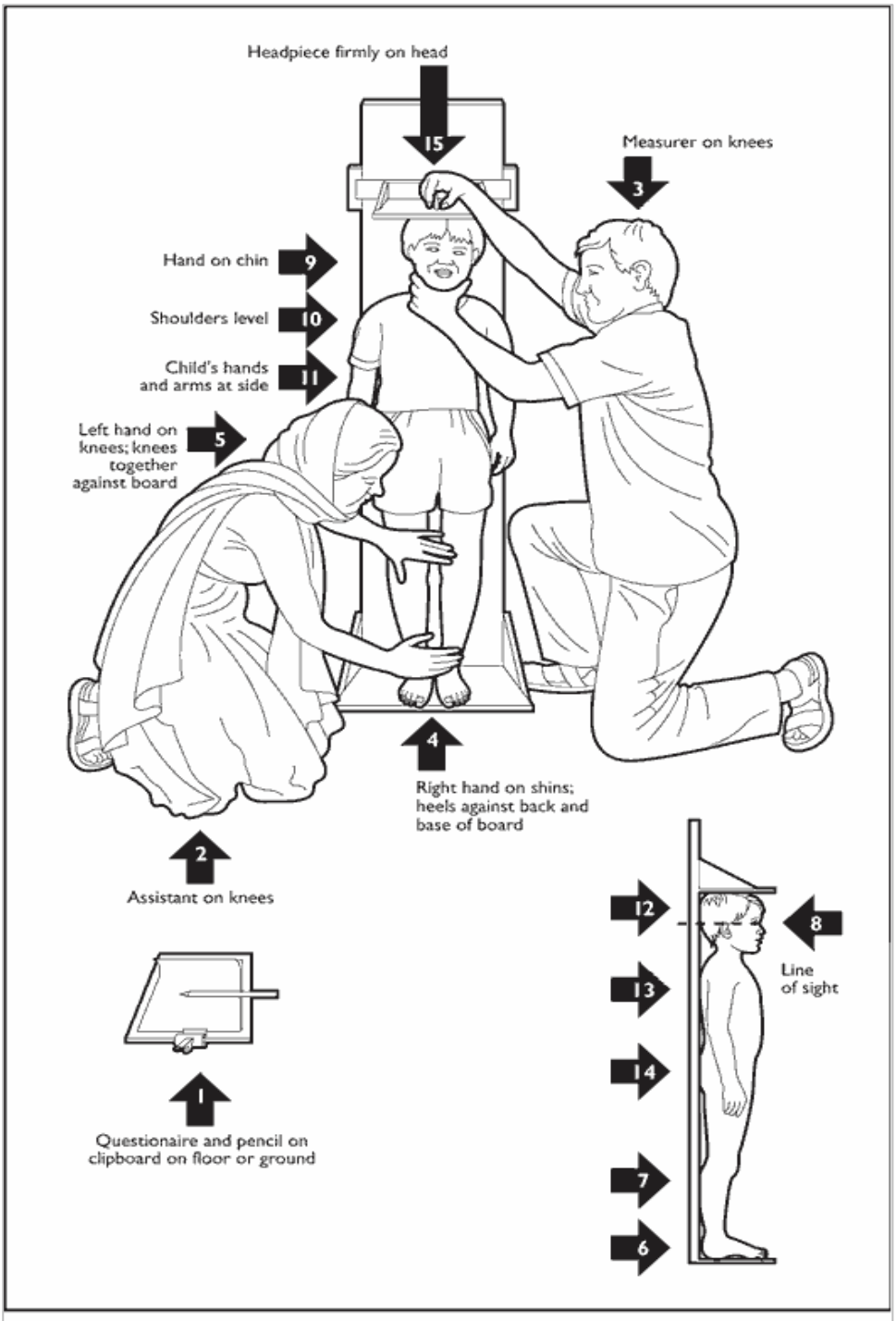
Weight-for-Height Look-Up Table for Children 24-59 Months WHO 2006 Child Growth Standards

Boys' weight (kg)				Height [a]	Girls' weight (kg)			
-3 SD	-2 SD	-1 SD	Median	(cm)	Median	-1 SD	-2 SD	-3 SD
5.9	6.3	6.9	7.4	**65**	7.2	6.6	6.1	5.6
6.1	6.5	7.1	7.7	**66**	7.5	6.8	6.3	5.8
6.2	6.7	7.3	7.9	**67**	7.7	7.0	6.4	5.9
6.4	6.9	7.5	8.1	**68**	7.9	7.2	6.6	6.1
6.6	7.1	7.7	8.4	**69**	8.1	7.4	6.8	6.3
6.8	7.3	7.9	8.6	**70**	8.3	7.6	7.0	6.4
6.9	7.5	8.1	8.8	**71**	8.5	7.8	7.1	6.6
7.1	7.7	8.3	9.0	**72**	8.7	8.0	7.3	6.7
7.3	7.9	8.5	9.2	**73**	8.9	8.1	7.5	6.9
7.4	8.0	8.7	9.4	**74**	9.1	8.3	7.6	7.0
7.6	8.2	8.9	9.6	**75**	9.3	8.5	7.8	7.2
7.7	8.4	9.1	9.8	**76**	9.5	8.7	8.0	7.3
7.9	8.5	9.2	10.0	**77**	9.6	8.8	8.1	7.5
8.0	8.7	9.4	10.2	**78**	9.8	9.0	8.3	7.6
8.2	8.8	9.6	10.4	**79**	10.0	9.2	8.4	7.8
8.3	9.0	9.7	10.6	**80**	10.2	9.4	8.6	7.9
8.5	9.2	9.9	10.8	**81**	10.4	9.6	8.8	8.1
8.7	9.3	10.1	11.0	**82**	10.7	9.8	9.0	8.3
8.8	9.5	10.3	11.2	**83**	10.9	10.0	9.2	8.5
9.0	9.7	10.5	11.4	**84**	11.1	10.2	9.4	8.6
9.2	10.0	10.8	11.7	**85**	11.4	10.4	9.6	8.8
9.4	10.2	11.0	11.9	**86**	11.6	10.7	9.8	9.0
9.6	10.4	11.2	12.2	**87**	11.9	10.9	10.0	9.2
9.8	10.6	11.5	12.4	**88**	12.1	11.1	10.2	9.4
10.0	10.8	11.7	12.6	**89**	12.4	11.4	10.4	9.6
10.2	11.0	11.9	12.9	**90**	12.6	11.6	10.6	9.8
10.4	11.2	12.1	13.1	**91**	12.9	11.8	10.9	10.0
10.6	11.4	12.3	13.4	**92**	13.1	12.0	11.1	10.2
10.8	11.6	12.6	13.6	**93**	13.4	12.3	11.3	10.4
11.0	11.8	12.8	13.8	**94**	13.6	12.5	11.5	10.6

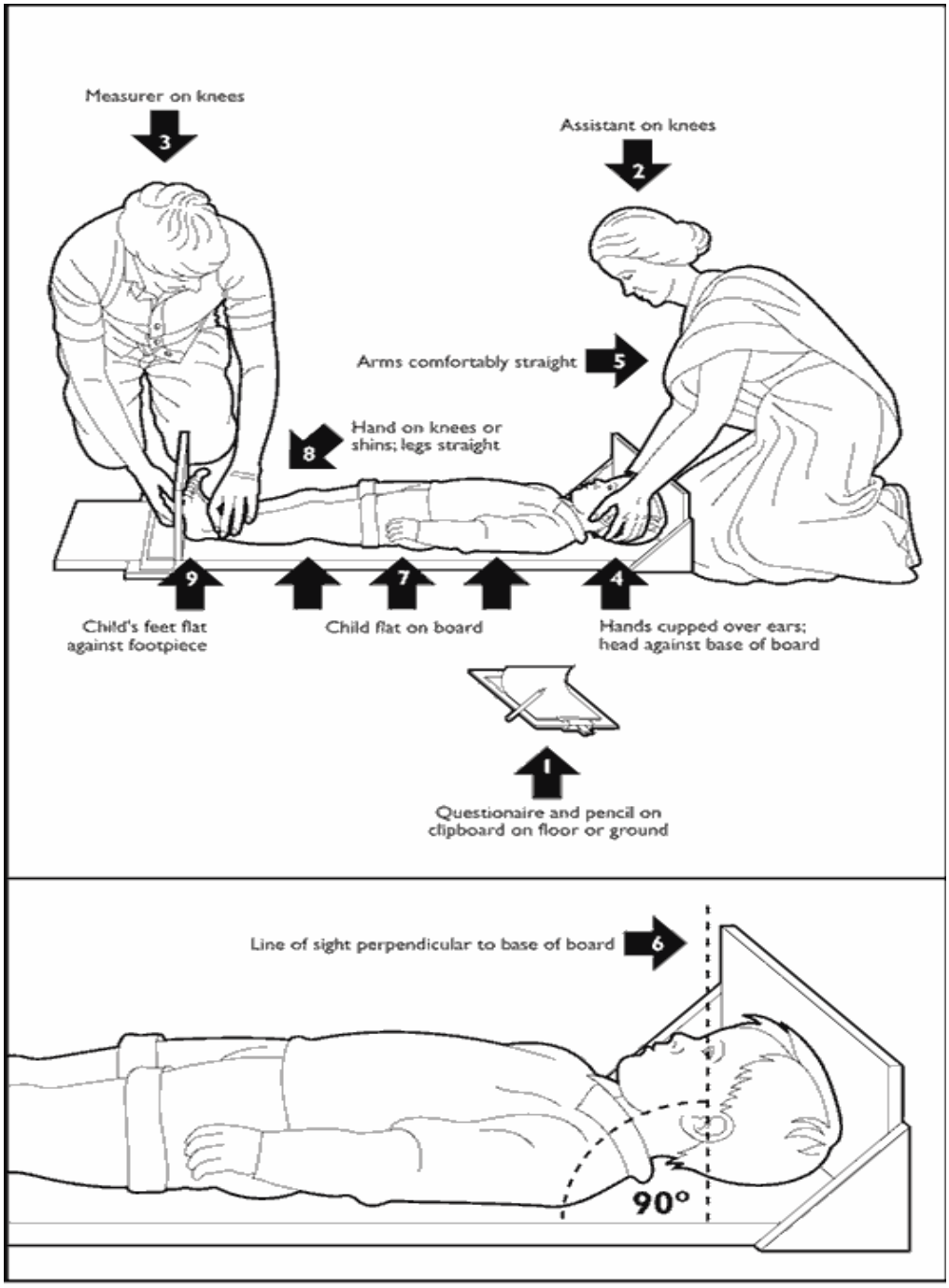
11.1	12.0	13.0	14.1	**95**	13.9	12.7	11.7	10.8
11.3	12.2	13.2	14.3	**96**	14.1	12.9	11.9	10.9
11.5	12.4	13.4	14.6	**97**	14.4	13.2	12.1	11.1
11.7	12.6	13.7	14.8	**98**	14.7	13.4	12.3	11.3
11.9	12.9	13.9	15.1	**99**	14.9	13.7	12.5	11.5
12.1	13.1	14.2	15.4	**100**	15.2	13.9	12.8	11.7
12.3	13.3	14.4	15.6	**101**	15.5	14.2	13.0	12.0
12.5	13.6	14.7	15.9	**102**	15.8	14.5	13.3	12.2
12.8	13.8	14.9	16.2	**103**	16.1	14.7	13.5	12.4
13.0	14.0	15.2	16.5	**104**	16.4	15.0	13.8	12.6
13.2	14.3	15.5	16.8	**105**	16.8	15.3	14.0	12.9
13.4	14.5	15.8	17.2	**106**	17.1	15.6	14.3	13.1
13.7	14.8	16.1	17.5	**107**	17.5	15.9	14.6	13.4
13.9	15.1	16.4	17.8	**108**	17.8	16.3	14.9	13.7
14.1	15.3	16.7	18.2	**109**	18.2	16.6	15.2	13.9
14.4	15.6	17.0	18.5	**110**	18.6	17.0	15.5	14.2
14.6	15.9	17.3	18.9	**111**	19.0	17.3	15.8	14.5
14.9	16.2	17.6	19.2	**112**	19.4	17.7	16.2	14.8
15.2	16.5	18.0	19.6	**113**	19.8	18.0	16.5	15.1
15.4	16.8	18.3	20.0	**114**	20.2	18.4	16.8	15.4
15.7	17.1	18.6	20.4	**115**	20.7	18.8	17.2	15.7
16.0	17.4	19.0	20.8	**116**	21.1	19.2	17.5	16.0
16.2	17.7	19.3	21.2	**117**	21.5	19.6	17.8	16.3
16.5	18.0	19.7	21.6	**118**	22.0	19.9	18.2	16.6
16.8	18.3	20.0	22.0	**119**	22.4	20.3	18.5	16.9
17.1	18.6	20.4	22.4	**120**	22.8	20.7	18.9	17.3

[a] Length is measured for children under 2 years or less than 87 cm height. For children 2 years or older or 87 cm height or more, height is measured. Recumbent length is, on average, 0.7 cm greater than standing height; although the difference is of no importance to individual children, a correction may be made by subtracting 0.7 cm from all lengths greater than 86.9 cm if standing height cannot be measured.

Annex 2-3: Demonstration of Height Measurement



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



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

Annex 2-4

Body Mass Index (BMI)

Body Mass Index (BMI) or "Quetelet's index" is based on a weight-to-height ratio that is considered a good index of body fat and protein stores. The formula for BMI is the weight (in kilograms) divided by the height (in meters) squared:

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

Example: A woman who weighs 55.5 kg with a height of 162.5 cm would have a BMI of (55.5/ (1.625x1.625)) = 20.9.

an adult is too ill to stand or has a spinal deformity, the half-arm span should be measured to estimate the height. This is the distance from the middle of the sternal notch to the tip of the middle finger with the arm held out horizontally to the side. Both sides should be measured. If there is a discrepancy, the measurements should be repeated and When the longest one taken. The BMI is then computed from the calculated height and measured weight. The height (in metres) can then be calculated as follows:
Height = [0.73 x (2 x half arm span□)] +□0.43

WHO classification of malnutrition in adults by BMI:3

Nutrition Status	BMI (kg/m^2
Normal	≥ 18.5
Mild malnutrition	17.0 – 18.49
Moderatemalnutrition	16.0 – 16.99
Severe malnutrition	< 16.0

Annex 3-1 : SFP Registration Book – Under 5's add column for measles

Reg. No.	Name	Village	Sheikh Name	Sex	Age (mths)	N.Admn/Re.Admn.(N, R, D)

Continues annex 3

Admission						Vitamin A		De-worming		Fe/F-olic
Date	MUAC (cm)	Wt (kg)	Height (cm)	WFH %	Target Weight	Date	Dose	Date	Dose	Date

Distribution 2				Distribution 3				
Date	MUAC	Weight	WFH %	Date	MUAC	Weight (kg)	Height (cm)	WFH %

Distribution 4				Distribution 5				
Date	MUAC	Weight (kg)	WFH %	Date	MUAC	Weight (kg)	Height (cm)	WFH %

Distribution 6				Distribution 7				
Date	MUAC	Weight	WFH %	Date	MUAC	Weight (kg)	Height (cm)	WFH %

Discharge					Reason				
Date	MUAC	Weight (kg)	Height (cm)	WFH %	Cured	Transfer	Dead	Defa-ulter	Non-response

Annex 3-2: SFP Registration Book – Pregnant & Lactating Women

No.	Re.g. No.	Name	Address	Sheikh Name	PW/LW	Age	Admission		
							Date	MUAC	Target MUAC
1									
2									
3									
4									
5									

Distribution1		Distribution 2		Distribution 3	
Date	MUAC	Date	MUAC	Date	MUAC

Distribution 4		Distribution 5		Distribution 6	
Date	MUAC	Date	MUAC	Date	MUAC

Discharge			Reason\s				
Date	MUAC	Target MUAC	Cured	Transfer	Dead	Defaulter	Non-Respondent

Annex 4-1 supplementary feeding card: Under-5

SUPPLEMENTARY FEEDING CARD: Under-5's Card No.

Administrative Unit

Name

Mother/Caretaker

Tel No.....

Address

Sheikh Name

Age (Mths)

Sex

Mebendazole Y N

Vit A Y N

Measles Vaccination Y N

Distribution	Ration	Date	Wt (kg)	Height (cm)	%WFH	Target Wt	MUAC (cm)	Iron/ Folic
Admission								
2								
3								
4								
5								
6								
7								
Discharge								

Cured

Transferred

No Response

Defaulted

Dead

Annex 4-2: SFP Ration Card – Pregnant & Lactating Women

SUPPLEMENTARY FEEDING CARD: PW&LW Card No.

Name

Centre

Address Sheikh Name

Age (Yrs) Pre.g.nant

Lactating

Pre.g.. Mths Lactating (infant age in mths)

Distribution	Date	Ration	MUAC (cm)	Target MUAC
Admission				>/= 22.5cm
2				
3				
4				
5				
6				
7				
Discharge				

Cured Transferred

Defaulted Dead

No Response

Annex 5-1: Routine treatment

Name of Product	When	Age	Prescription	Dose
Vitamin A At admission	Vitamin A at admission	6 months to 11	100000IU	Single dose on admission
		12 to 59 months	200000IU	Single dose every 4 to 6
Abendazole*	Admission	<12 months	Do not give	
		12 -59 months	400mgs	One tab on admission
Iron /folate at	Admission	6 to 24 months (with low birth weight	) 12.5mg iron/50µg Folic Acid	Daily dose for one month
		24 to 59months 20	20- 30mg	Daily dose for one month
		6 to 11 years 30	30- 60mg	Daily dose for one month
		Adolescents and adults	60mg	Daily dose for one month
Measles vaccination	At admission	≥9 months Once	-	*Once*
Vitamin A	Within first 8 weeks	Lactating	200000IU	Single dose on admission
Albendazole	At admission	Second trimester	400mg Albendazole	e Single dose

Annex 5-2: Messages of routine treatment

Vit A

- Do not give Vitamin A if it had been given over the past 3 months.
- Give children weighing less than 8 kg or 6-11 months old 3 drops of 200,000 IU Vitamin A (retinol) red capsules (OR one blue capsule containing 100,000IU retinol).
- Give children weighing more than 8 kg or 12 – 59 months old 1red capsule of 200,000 IU Vitamin A
- **EXCLUDE:** Those referred from Therapeutic feeding centres (TFC) and re-admissions.

Abendazole:

- Give anti-helminthes again after last 3 months if signs of re-infection appear
- Or other anti-helminth according to national guideline: e.g. Mebendazole: Not recommended for < 12 months.
- give 500mg single dose on admission to children aged 12-59 months
- Give children weighing more than 9 kg, a single dose of 500mg tablet on admission

Iron/Folate

- Provide a fortnight or weekly dose depending on the rounds of distributions for ease of administration, counsel patient/caregiver accordingly.
- For children weighing less than 10 kg, half tablet (100mg iron and 20mg folate) every week.
- For children >10kg, one tablet (200mg iron and 40mg folate) every week.

- In malaria prone areas WHO recommends that Iron and supplementation be targeted to those who are anemic and are at risk of Iron deficiency. (Follow malaria protocol)

Measles Vaccination

- International guidelines on Integrated Management of Childhood Illnesses (IMCI) recommend that during emergencies measles vaccine should be given to children starting from 6 months because their immunity is likely

to be compromised as a result of inappropriate dietary intake and/or increased levels of infections.

- It is also important to check each child's immunization card for measles vaccination status and give measles Vaccine. If child has no card or proof of vaccination against measles, assume that the child has not been vaccinated.

Annex 6: **Ration Composition and preparation**

Premix preparation for 1, 5, 10 and 20 persons – Under-5's

Ration 1. – provides 1296kcals (14% protein, 31% fat)

Food Item	Quantities for X Persons (kg) for a fortnightly ration			
	1	5	10	20
CSB	3.5	17.5	35	70
Sugar	0.28	1.4	2,8	5.6
Ve.g.etable Oil	0.42	2.1	4.2	8.4
Total	4.2	21	42	84

Ration 2 – Current WFP ration in Darfur - provides 1017 kcals 014% protein, 28% fat)

Food Item	Quantities for X Persons (kg)			
	1	5	10	20
CSB	2.8	14	28	56
Sugar	0.28	1.4	2.8	5.6
Ve.g.etable Oil	0.28	1.4	2.8	5.6
Total	3.36	16.8	33.6	67.2

Annex 7 : Child (6- 59m) Referral Card from SFP to GMP

locality:… … … … … … … … … … …. Town/ village :… … … … … … … … … … … ….

Health Facility:…… Date of Referral …… …….

Patient Name:…….....…Age:……Gender:……

On admission:

MUAC.....Weight.....height.....WFHz-score.....

On discharge:

MUAC.....Weight.....height.....WFHz-score.....

Wt gain…… .....length of stay in the program.....

Vit A supplementation date:..... dewarming Tablets dates.....

Lipidol capsule supplementation date : .....

Measles vaccination status.....

Referring cadre name: .....Signature: .....

Annex 8: Ration request form

SFP center…….Town \village…..locality……Date……...
Types of beneficiary: Children Under 5....lactating …..Pregnant……others

SF Types	Quantity(Kg)	Unit of packing	Duration	Remarks

Store Keeper…… Supervisor ……
Signed……..… Signed…….....

Annex 9: Monthly Stock Card

SFP center ……..…….…….……

Town \village ….....locality…….……..

Date……..Month……

Types of beneficiary: Children Under 5 …lactating……..pregnant……others…

N	Food items	Units\Pack	Expiry date	Balance (Last Month	Quantity Received	Quantity Distributed	Losses Remark	Closing Balance	Request for Next Month

Store Keeper……

Signed……

Supervisor ……

Signed……

Annex 10: Supplementary Feeding Program (SFP) Monthly Report

Supplementary Feeding Program - Monthly Report

Name of Centre……District:……..Locality:……
Month/Year…….

Name of Organization……
Date of opening:___/___/____ Prepared by:_____ Contact Number
Date: ___/___/____

Age Grp	TOTAL Beg-inning of Month (A)	**Admissions**						
		WFH 70-79% ≤ -2 z-score (B)	MUAC 11.5-12.5cm (C)	MUAC <23.0cm (D)	Others (E)	Total New Adm-issions (F=B+C+D+E)	Readm-issions (G)	TOTAL Admi-ssions (H=F+G)
6-59 months								
Follow-up NRU/TFP								
Pre.g.nant								
Lactating								
Others*								
TOTAL								

Age Grp	Discharged							TOTAL Month End ((P=A+H-O))
	Cured (I)	Death (J)	Default (KF)	Transfer (L)	Non Respond(M)	Other* (N)	TOTAL ((O=I+J+K+L+M+N))	
6-59 months								
Follow-up NRU/TFP								
Pre.g.nant								
Lactating								
Others*								
TOTAL								
	%	%	%	%	%	%		
	>75%	<3%	<15%	Target				

-specify the categories includes TFC/TFU/OTP discharges, women >6months lactating etc, admission mistakes etc.

Average length of stay (cured): ___ Average weight gain (cured): _____

Distribution/Attendance

Distribution	**1**	**2**	**Total**
Children 6-59 months			
Pre.g.nant			
Lactating			

For the SFP Monthly Report, the different categories have to be filled according to the SFP Registration Book. Refer to page 12 for 'discharge' definitions – cured, death, transfer, defaulter and non-respondent. NOTE: If the child falls into several categories, tally ONCE in the following order of priority:
1. Oedema, 2. WFH and 3. MUAC. For example, if a child has oedema and a WFH <70% then register the child under the oedema category ONLY. No child should be counted in more then one category

Annex 11: **Interpretation of SFP Monthly Report**

Each month the number of cured patients, deaths, transfers and defaulters is expressed as a percentage of the total number of patients leaving the program during the reporting month.

Cured Rate

No. of patients discharged cured / No. of Exits x 100

(C) / (G) x 100

Death Rate

No. of deaths in the centre / No. of Exits x 100

(D) / (G) x 100

Transfer Rate

No. of transferred / No. of Exits x 100

(E) / (G) x 100%

Defaulter Rate (Absence from the centre for two consecutive distribution)

No. of defaulters / No. of Exits x 100

(F) / (G) x 100%

Mean length of stay

Sum of No. of days from admission day to the last day for all cured patients for this month/No of cured patients this month

Minimum Standards

Comparison of the SFP monthly data with standard reference values (Sphere standards) allows assessment of how well the program is functioning.

Reference values for Indicators

Indicators	**SFP Acceptable**	**SFP Alarming**
Cured rate	> 75%	< 50%
Death rate	< 3%	> 10%
Defaulter rate	< 15%	> 30%
Length of stay	< 8 weeks	> 12 weeks

Annex 12 : Preparing khichuri- Home-based Food)

Kishuri is a nutritious home based food for children. Should be given in adition to breast milk or breast milk substitute >

Ingredient:

- Rice 75 g
- Lentils 50 g
- Leafy green vegetables 75 g
- Pumpkin 75 g
- Onion (flavor) 1 piece
- Vegetable oil 2 teaspoon 25 g
- Water to be absorbed by Rice 800 ml

Preperation :

- Put rice, pumpkin, lentils, oil and water in pot and boil,
- keep pot covered during cooking .
- about 5 minutes before rice is cooked , add cleaned leafy vegetables

amount to serve :

- The amount is enough for two meals for one-year-old child. Cook it twice daily to make 4 meals

WHO , training course on Managment of severe Malnutrition, involving Mathers in care

Annex 13

Referral Slip Community Screening

Child's Name:	
Name of Mother/Caregiver:	
Place of Origin:	Referral Health Facility:
Date of Outreach:	
Bilateral Pitting Oedema: ☐Yes	MUAC: mm ☐No
Other Findings:	
Name of Community Outreach Worker:	Signature:

Annex 14 : Referral From SFP TO Health facility

Refer to .....hospital ( ) OTP ( )		
Date:	Time:	
Name:		
Age:	Weight:	Temperature:
Reason for Referral:		
Other Classifications:		
Treatments Given Before Referral:		