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Guidance note

Substitution of specialized nutritious foods in situations of temporary commodity shortfalls

Overall considerations in selection of temporary substitutions of SNF

Good resource planning is crucial to limit interruptions to implementation and to ensure smooth programme functioning. However, pipeline breaks and shortages of specialized nutritious foods (SNF) do occur, such as those caused by production capacity that is unable to meet increased demand, delayed procurement or delayed arrival of shipments, and food safety and quality issues.

This guidance note provides information on the temporary substitution of SNF and is targeted to Country Offices (CO), specifically, the programme/nutrition, supply chain and resource management teams and to support units at regional and headquarters divisions.

SNF are a range of specialized food commodities and supplements formulated to provide specific amounts of energy, micronutrients and macronutrients necessary for growth and health. For nutrition-specific interventions, SNF in the form of lipid-based nutrient supplements (LNS)¹ or fortified blended foods (FBF)² are used for:

- treatment of moderate acute malnutrition;
- prevention of acute malnutrition;
- prevention of chronic malnutrition;
- management of micronutrient deficiencies.

See table 1 for information related to SNF.

Good resource planning is crucial to limit interruptions to implementation and to ensure smooth programme functioning. Substitutions of SNF are a **temporary measure** to avoid disruption to programme implementation and ensure that affected populations receive the nutritional services they need. The standard SNF should be **re-instated as soon as possible**.

Nutrition and health considerations

Substitution is only possible if it meets the specific nutrient needs of the intended target group. The guidance provided in the tables below has taken this into careful consideration and only provided substitutions that would meet the nutrient needs within an acceptable range, without going too far below or above recommended nutrient intake ranges. Health factors should be taken into consideration too, for example provision of high-fat food, including oil, may not be appropriate for people living with HIV as it can exacerbate diarrhea and cause nausea and high-level of sugar may not be appropriate as it may aggravate oral thrush.

Acceptability and appropriateness

Every time there is a proposed SNF substitution the acceptance and appropriateness of the SNF for substitution must be ascertained³. Specifically, is the proposed substitution acceptable to the target group and appropriate for the household? It might be necessary to organize a small acceptability **trial to verify which products** are culturally acceptable to substitute. Assess different variations (e.g. corn versus wheat versus rice FBF and peanut versus chick-pea based LNS) and different formulations (Super Cereal Plus versus Super Cereal) before substitution. At the household-level it is important to understand if there is access to cooking facilities and materials, safe storage methods for the SNF, and safe water sources to inform choice of SNF substitution.

Table 1: Specialized Nutritious Foods (SNF)

Type of SNF ⁴	Common Brands	Standard ration/ person/ day	Kcal/ Recommended Nutrient Intake (RNI) per ration	Shelf life ⁵
Ready-to-use Supplementary Food (RUSF)/ Large Quantity Lipid-based Nutrient Supplement (LNS-LQ)	Plumpy'sup, eeZeeRUSF/ eeZeeBAR, Acha Mum	100g	510 Kcal/meets RNI	24 months
Medium Quantity Lipid-based Nutrient Supplement (LNS-MQ)	Plumpy'doz, eZeeCup/ eZee50, Wawa Mum	50g	255 Kcal/meets RNI	24 months
Small Quantity Lipid-based Nutrient Supplement (LNS-SQ)	NutriButter, eeZee20	20g	108 Kcal/meets RNI	24 months
Fortified Blended Food (FBF) (wheat, corn or rice based)	Super Cereal Plus (SC+)	200g (treatment) 100g (prevention)	820 Kcal/meets RNI 410 Kcal/meets RNI	18 months
Fortified Blended Food (FBF) (wheat, corn or rice based)	Super Cereal ⁶ (SC)	200g (treatment) 100g (prevention)	752 Kcal/meets RNI 376 Kcal/meets RNI	12 months
Micronutrient Powders (MNP)	Variety of branding options	0.5g ⁷	0 kcal/meets RNI	24 months

Government and partner considerations

It is important to determine if the proposed SNF substitution is in alignment with Government import restrictions, policy and protocols (i.e. Guidelines for the management of acute malnutrition may stipulate the exact product to use in treatment), quality standards, and emergency preparedness plans among other considerations. The Government, Nutrition cluster (if exists) and partners should be consulted and in agreement regarding temporary SNF substitutions. A specific discussion with UNICEF should be done given the close linkages with the prevention and treatment programs.

Supply Chain/Pipeline^{8,9}:

Every time there is a proposed SNF substitution it is important to assess issues related to supply chain. While it may be tempting to substitute one SNF for another that is on-hand at the CO, do not do it unless the substitution is one of the recommended options in the tables below. The substitution should be based on the programme type and target group. Specifically, shelf-life and best-before-date of proposed SNF, availability and lead-time, WFP/Cooperating Partner/Government storage conditions (e.g. temperature, pest/rodent control, and space required per product) and cost differential.

Costs

See table 2 for information related to SNF costs.

Table 2: Costs of SNF products and programmes

Product/Programme	Average product cost per MT (USD)	Ration (g/person/day)	Monthly rations/MT (# of people served) ¹⁰	Cost of ration pp/month (USD)
RUSF - Treatment of MAM	2,800	100	333	8.40
LNS-MQ - Prevention	2,515	50	667	3.80
LNS-SQ - Prevention	3,000	20	1,667	1.80
FBF (Super Cereal) - Treatment	550	200	167	3.30
FBF (Super Cereal) - Prevention	550	100	333	1.65
FBF (Super Cereal Plus) - Treatment	1,000	200	167	6.00
FBF (Super Cereal Plus) - Prevention	1,000	100	333	3.00
MNP (1g sachet)	20,000	0.5	66,667	0.30
High Energy Biscuits (HEBs)	1,165	75	444	2.62

After selection of temporary SNF substitution

Communications

Every time there is a SNF substitution this needs to be communicated to the appropriate audiences. A change in the SNF and/or distribution schedule must be clearly communicated to target groups, local leaders, cooperating partners, Cluster/Sector and Government as necessary. This includes the rationale for the substitution, directions on usage of the substituted SNF, anticipated duration of the substitution, and any other relevant information.



Specialized Nutritious Food Substitution options in situations of temporary commodity shortfall

The substitution options are listed in order of preference. If the standard option included in the programme document and planning is not available then move to the 1st line and so forth. Assess each substitution option across the dimension of nutritional considerations, product acceptability and appropriateness, partnership, supply chain, costs, and communications as outlined above.



Table 3: Treatment of moderate acute malnutrition (wasting) among different age and vulnerable groups

Treatment of moderate acute malnutrition (wasting) among children 6 – 59 months ¹¹			
	Type of SNF	Ration (g/pp/pd)	Directions
Standard product	RUSF	100	Follow standard ration guidance
	Super Cereal Plus	200	Follow standard ration guidance (includes provision for sharing)
Substitutions options by order of preference			
1st line substitution	LNS-MQ	50	Can provide 2 sachets of LNS-MQ to equal 1 RUSF
2nd line substitution	RUTF ¹²	100	Provide one sachet of RUTF ¹³ per person per day. The decision to use RUTF is only an option in exceptional circumstances if a partner (e.g UNICEF) has a surplus of stocks and if the decision is agreed upon by UNICEF, Government and partners after carefully assessing pros and cons – refer to available guidance ¹⁴
Treatment of moderate acute malnutrition (wasting) among children >5 years, PLW and other nutritionally-vulnerable groups			
Standard product	Super Cereal	200-250	Follow standard ration guidance (250g includes provision for sharing)
Substitutions options by order of preference			
1st line substitution	Super Cereal Plus	200-250	Follow standard ration guidance (250g includes provision for sharing)
2nd line substitution	RUSF	100	Acceptable if accepted in the target population – follow standard ration guidance

Table 4: Prevention of chronic and acute malnutrition among different age groups and different vulnerable groups

Prevention of chronic and acute malnutrition among children 6–23 months¹⁵ (primary target group) <i>Other target groups: children 24–59 months</i>			
	Type of SNF	Ration (g/pp/pd)	Directions
Standard product	LNS-MQ	50	Follow standard ration guidance ^{16,17}
	Super Cereal Plus	100–200	Follow standard ration guidance (200g includes provision for sharing)
<i>Substitutions options by order of preference¹⁸</i>			
1st line substitution	RUSF	50	100g sachet per person every second day
2nd line substitution	LNS-SQ ¹⁹	20	One sachet per person per day
Prevention of acute malnutrition among children >5 years and pregnant and lactating women (PLW)			
Standard product	Super Cereal ²⁰	100–200	Follow standard ration guidance
<i>Substitutions options by order of preference²¹</i>			
1st line substitution	Super Cereal Plus	100–200	Follow standard ration guidance
2nd line substitution	Cereals and Pulses + oil + MMT or MNP ²²	100–200	Only provide if micronutrient supplementation (not just iron and folic acid) is provided by health system. Specific options should be discussed and agreed with partners as it will be most important to cover the kcal gap if micronutrient supplementation is already provided.
3rd line substitution	HEBs ²³	100–175	HEBs generally come in 50g, 75g, 100g or 250g packages. Aim to match the kcal amount of the original FBF ration (not much extra needed for sharing).

Table 5: Management of micronutrient deficiencies

Addressing micronutrient deficiencies in children 6–23 months (up to 59 months)²⁴			
Standard product	MNP	0.5	Follow standard ration guidance (1g sachet per person every second day)
	LNS-SQ	20	Follow standard ration guidance
<i>Substitutions options by order of preference²⁵</i>			
1st line substitution	LNS-MQ	50	Follow standard ration guidance
2nd line substitution	Super Cereal Plus	100	Follow standard ration guidance

Five ways to mitigate the risks related to SNF substitutions

The risks related with substituting SNF products include:

- Confusion/disruption of other programs (if a product is taken from another program or when it may be associated with being just for a particular target group, e.g. LNS for children now also being given to PLW)
- If assessments and communication of substitution are not done well, acceptability may be low and SNF may

1



Assess the situation well in advance

2



Agree with government and partners beforehand on SNF substitution options used in regular programs

3



Monitor well the substitution, including potential excess market sales and reaction



4



Revert back to the original product as soon as it is feasible

5



At all steps communicate well to government, NGO partners, UN partners (e.g. UNHCR), communities

Notes:

1. LNS is a collective term for SNF that are lipid-based spreads or pastes. There are different formulations and dosages used for different purposes. There are 3 categories of LNS: small, medium and large quantity. Large quantity LNS is referred to as RUSF (ready-to-use supplementary food).
2. FBF are a mixture of cereals and other ingredients such as soya beans or pulses that have been milled, blended, pre-cooked and fortified with a premix and with a range of vitamins and minerals. There are two types, one that is specifically formulated for young children and to be used for complementary feeding and for treating MAM (Super Cereal Plus, includes milk powder, sugar and oil) and one for the general population (Super Cereal, same micronutrient-content, may include 10% sugar, but does not contain added milk powder and oil).
3. Experience so far has shown that ingredient variation is generally acceptable (e.g. study of peanut vs chickpea based LNS in South Sudan, WFP 2017; rice, wheat, corn SC+ and SC study in Burkina Faso, Kampstra et al, 2017). Changes of product-type may be more difficult, depending on what populations are used to and how products such as FBF are typically prepared.
4. LNS may be preferred in emergency settings if access to cooking, clean water and sanitation is disrupted as they do not need to be cooked, are less likely to be shared within the household compared to FBF, are more stable and at less risk of contamination. However, due to the limited number of manufacturers and potential for pipeline breaks along with the higher cost, the CO must weigh the pros and cons of utilizing LNS versus FBF.
5. Shelf life indicated is valid for storage at temperatures less than 30 degrees C.
6. Super Cereal should not be provided in programmes targeting children 6-59 months as per the recent Codex Alimentarius Directives. See Joint FAO/WHO Food Standards Programme, Codex Alimentarius Commission, 38th session, July 2015, REP15/CAC. However, when the family receives Super Cereal for everyone, children of any age can also have some, as part of their share of family food.
7. Packaging is 1g, but by giving 15 sachets a month, average intake will be 0.5g/d.
8. See Managing the Supply Chain of Specialized Nutritious Food, <https://docs.wfp.org/api/documents/84a92b8fb73640c6bcbad4599d6af7ee/download/>.
9. See the Supply Chain and Import Parity System (SCIPS), <http://ipf.wfp.org/rfd/introduction/>
10. The average treatment duration varies based on target group: for children 6-59 months, average duration is 40-90 days; for PLW, duration lasts from identification to recovery, or until 6 months post-partum, per national protocol; for malnourished individuals on ART/DOTs the average duration is 180 days. For prevention, duration will be aligned with national guidelines and will vary with different situations, contexts and objectives (e.g. prevention of acute vs. prevention of stunting) as well as target group.
11. Resource constraints may necessitate prioritization of target groups to the youngest children (6 – 23/35 months) who are at increased risk of mortality compared to the older children (24/35 – 59 months). This decision should be taken in consultation with partners and Government.
12. Common brands of RUTF are Plumpy'nut and eeZeePaste.
13. RUTF is specially formulated to address severe acute malnutrition. Children with SAM are at the highest risk of mortality compared to healthy children and children with MAM. Therefore, to use RUTF in place of RUSF requires an ethical evaluation of this substitution. If there is concern over a pipeline break of RUTF or issues of coverage then it should not be used.
14. The MAM Decision Tool, Annex D, [updated 2017, http://nutritioncluster.net/resources/ma/](http://nutritioncluster.net/resources/ma/)
15. The target group for prevention of chronic malnutrition/ stunting is always children 6 – 23 months and PLW 6 months pre- and post-birth. The target group for prevention of acute malnutrition may include children 6 – 23 months, 6 – 35 months, or 6 – 59 months and/or PLW depending upon the context.
16. Programming for nutrition specific interventions (2012), http://docustore.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp248307.pdf
17. WFP Specialized Nutritious Foods sheet, <http://docustore.wfp.org/stellent/groups/public/documents/communications/wfp245158.pdf>
18. This Guidance Note provides the preferred substitution options per programme. If the preferred options as listed are not possible then additional guidance should be sought through consultation with Regional Bureau/OSN.
19. Only one sachet is recommended per person per day due to the high micronutrient content. This is the less preferred option as also LNS-SQ has significantly lower Kcal content than the 100g SC+ ration.
20. Super Cereal is often provided with a ration of oil and sugar. Super Cereal Plus is not provided with a ration of oil and sugar.
21. This Guidance Note provides the preferred substitution options per programme. If the preferred options as listed are not possible then additional guidance should be sought through consultation with Regional Bureau/OSN.
22. MMT = multi-micronutrient tablet; MNP = micronutrient powder
23. High Energy Biscuits (HEB) are not commonly utilized in nutrition programmes, however, they may on occasion be used as a substitute ration for PLW. Generally not recommended as a substitution beyond 3-5 days.
24. See the Joint Statement by WHO/UNICEF/WFP on preventing and controlling micronutrient deficiencies in populations affected by an emergency, http://www.who.int/nutrition/publications/WHO_WFP_UNICEFstatement.pdf
25. In contexts where double burden is an issue, the calorie content increases significantly, and might not be appropriate.

It is planned to review this interim guideline formally within 6 months after use in the field, as required.



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