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FAMILY HEALTH BUREAU
MINISTRY OF HEALTH

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All Provincial Directors of Health Services
Regional Directors of Health Services
Heads of Institutions

Guideline for Feeding Infants and Preschool Children (1 – 5 years) including orphans and those not living with mothers during an Emergency situation

Emergencies such as floods, earth slips, tsunami and war, result in the displacement of a large number of people including infants and preschool children (1 – 5 years) and sometimes they have to take shelter in various camps either on a short-term or long-term basis. As a result of such emergency situations the nutritional status of infants and preschool children could be affected due to various reasons such as non-availability/irregularity in the supply of food, stress among parents/caregivers, poor care practices, inappropriate messages etc. Past experience during emergencies especially the tsunami has seen various private companies, NGOo and well wishers distributing milk powder and bottles indiscriminately contrary to the guidelines which has seriously threatened the nutritional status of the infants and young children in Sri Lanka.

Emergency situations may also result in the loss of the mother / father/ both parents of some children. The numbers of such infants and children may be very small.

While giving priority to the nutritional status of orphans and under five year old children without the mother it is also important to provide guidelines on feeding infants and young children living with the mothers in difficult situations. Therefore the following provisional guidelines are recommended to give clear and uniform instructions to the health care providers and policy makers to improve the health status and minimize the adverse impact on the nutritional status of all infants and young children (including orphans and children separated from the mother) affected by the emergency situation.

Feeding infants and young children living with mothers

Infants up to 6 months:-

Protect, promote and support Exclusive Breastfeeding up to six months of age for those infants who are on breast milk already. Give demand feeding at all times including at night.

Those infants who are on both breast milk and artificial milk should be encouraged to continue only breast milk as far as possible. It is the responsibility of the health workers to support the mothers on this issue.

Infants less than six months who are only on formula milk should follow the same instructions as given in pages 7 and 8 of this document.

6 months to 1 year:-

Those infants who have completed six months and older, the continuation of breast feeding should be protected, promoted and supported while giving complementary food.

Infants on both breast milk and artificial milk should be encouraged to continue only breast milk as much as possible while introducing complementary foods. Those who are

only on formula milk should receive complementary foods in addition to the milk as detailed out in the section on feeding orphans.

Why is Breast Feeding important in Disaster/Emergency situations?

Breastfeeding is important during emergencies to ensure the essential nutrition and protection from communicable diseases. In this sort of a situation most of the affected people would be living in temporary settlements/camps and therefore may be prone to communicable diseases such as diarrhea due to;

- poor sanitation
- Inadequate access to safe water
- Lack of facilities for refuse disposal
- Depressed immunity status due to the psychological trauma

Infants and young children may be more vulnerable to develop diarrhea especially if they are on formula milk. Inadequate/lack of facilities to sterilize bottles and teats may aggravate this problem further. Therefore breast feeding is very important to ensure adequate nutrition, prevention of infections as well as rapid recovery from ill health. Even though people think that under problematic and stressful situations, with inadequate food supply, secretion of breast milk gets reduced, it is not so. It is scientifically proven that mothers can produce adequate breast milk for their babies even with minimum nutrition when there is adequate suckling.

In emergency situations, if artificial infant milk formulae are supplied to camps on a mass scale without any control, the nutritional status of children and their survival will be affected in an adverse manner. There is strong scientific evidence from some countries to support this. Further the psychological trauma experienced by these children could be aggravated by weaning off the child from the breast.

Indications for introducing formula milk to Infants:

1. Orphans or those not living with mother

2. Infants who had been weaned off the breast before the emergency

Complementary foods for infants completing 6 months to nine months of age:

It is best to introduce locally prepared complementary foods to all infants from the age of six months (on completion) onwards in addition to breast milk. However during the acute phase (immediately after the emergency situation) until things are sorted out the infants could be given accepted / recommended commercial preparations of cereal, Thriposha or Corn Soya Blend (which is a food similar to Thriposha in appearance) provided by the World food Programme. If Corn Soya Blend is used it should be cooked before consumption. Commercially available baby rusks also could be used to feed infants during this period. It is recommended to use boiled cool water to soften and mix biscuits. Two to three main meals should be given with breast milk in between.

Once the acute phase is over the MO/MCH, MOH. PHI, PHM and trained health volunteers should take steps to ensure that arrangements are made as soon as possible to prepare the complementary foods centrally within camp premises in a hygienic manner with the help of the mothers. This is important to ensure nutrient adequacy of the food and minimize risk of infection. Any assistance regarding the preparation should be provided by the Public Health Midwife of the area.

In addition to the main meals and breast milk they should also be fed locally available fruits (such as ripe banana, papaw, avocado) which should be scraped and fed using a clean spoon.

Giving fruit juices or cunjee water is not advised as they are poor in nutrition.

Method of preparing complementary food (age completed 6 – 9 months):

Keep the rice to boil. When the rice is boiling add some dhal, vegetables like sweet pumpkin, potato, carrot, ash plantain to the same pot. Green leaves which have been washed well can be added last. Whenever possible add powdered sprats/ fish/meat to the pot. Either coconut milk or some oil could be added during preparation to improve the quality and the taste of the food. Avoid adding salt. Add lime or tamarind juice to taste.

It is preferable to include at least two types of vegetables, a green leafy vegetable and a pulse like dhal, green gram or cowpea respectively when preparing a meal. It is better if the pulses are soaked overnight. Introduce a variety of locally available vegetables gradually.

On completing six months well mashed food can be fed but when the child is around seven months fine particles should be introduced. Thereafter increase the particle size gradually to help the child get used to adult food by one year.

Complementary foods for infants 9 + months to 1 year of age:

They can be provided the adult type of energy rich food prepared with less spices. Soft rice together with dhal, vegetables including green leaves and meat/fish/dried fish/eggs (same as adult foods) prepared in curry form could be given. Breast milk can be given in between. It is important to give them a minimum of three main meals with two snacks such as baby rusks /biscuits/fruits/Cereals/Thriposha/Corn Soya Blend in between. The preparation should be done centrally as soon as possible under the guidance of the health care staff or a trained health volunteer.

1-5 year old children:

Children above one year should receive the same food as adults. Breastfeeding should be continued as long as possible. Those children not on breast milk should be given full cream milk or fresh cow/ goat milk twice a day using a cup. Energy dense adult type of food is more important for children than milk at this stage. Milk should be given in between main meals and should not replace a meal. Low fat/fat free milk and condensed milk is not recommended for children under five years

Children in this age group should be provided with sufficient nutrients and energy in appropriate proportions to enable optimal growth and development. Combinations of adult foods as mentioned below could be given during a meal time. They need to have three main meals plus two snacks like biscuits, thriposha, cereals, Corn Soya Blend, fruits, yams, kadala etc daily. Either breast milk or full cream milk could be given in between. Locally available, low cost vegetables and fruits are recommended.

What is more important is the number of times a child gets the recommended food daily than the amount given at each meal.

Recommended no. of daily servings/frequencies for children 1-5 years:

Food types	Frequency per day
Rice/ bread/ string hoppers/Roti/Pittu Hoppers/ Thosai/ Masala Vade/ Noodles Manioc/Bathala/Boiled Jak/ Cereals	4 times or more (depending on appetite)
Banana/Papaw/Avacado/Mango	1-2
Dhal/Cowpea/Kadala/Mung beans	1
Any type of Vegetables – other vegetables - green leafy vegetables	1-2
Fish/Meat/Egg/Dried fish	2 small pieces
Milk or Milk products	200 – 300ml
Fatty foods in moderate amounts	Grated coconut, coconut milk, oil, butter, margarine

A list of meals that could be given to children aged 1 – 5 years is attached as an annexure.

How to ensure adequate supply of food for people living in camps:

The government should ensure that food is available adequately and regularly for all members residing in camps (either temporarily or permanently). The supply should be through the available infrastructure of the Divisional Secretary system. It is the responsibility of the MOH to co-ordinate with relevant authorities to ensure regular and adequate supply of food to all segments of population living in temporary settlements and camps with special emphasis on pregnant and lactating mothers, infants and young children.

Guideline for Feeding Infants and Young Children (1 – 5 years) without both Parents / Mother in the affected areas

Breastfeeding by surrogate mother:

Even for orphaned infants, it is best if arrangements could be made to breastfeed them by a surrogate mother or a close relative.

However this may not be possible under these circumstances. Therefore the following feeding guidelines are recommended.

Feeding infants with formula milk:

Infants up to 6 (completed) months	– formula I
7 (beginning) months to 1 year	- formula II together with complementary food
1 – 5 years	- full cream milk together with adult food

If formula II is not available, full cream milk and even fresh cow/goat milk can be used to feed infants above 6 months of age.

Preparation:

As regards the dilution (number of scoops per ounce/30ml) follow the instructions given in the packet of milk powder. Boiled water which is warm can be used for the preparation of milk.

Frequency and amount to be fed for infants:

Up to 6 (completed) months – 150- 200ml / kg / day i:e around 600-800 ml daily. Three hourly feeds (approximately 8 feeds per day).

Beginning of 7 months and over – 5-6 feeds (500 ml daily).

Around 9 months – Four feeds daily.

One year and after – Two feeds daily.

This is a general recommendation. The amount to be fed at a given meal could vary from one child to another and even in the same child from one meal to another. Do not force feed or over feed any child.

How to feed formula milk?

When feeding infants with formula milk, cup feeding is the best as bottle feeding carries a risk of infection due to the lack/ inadequate facilities for sterilizing/ boiling bottles. It is preferable to use a stainless steel cup for this purpose. The cup has to be washed thoroughly with soap and water after each feed and preferably immersed in boiling water. If bottles are used under any circumstances steps should be taken to wash the bottles and teats thoroughly with soap and water using a clean brush and boil for at least 5 minutes.

Stimulation during feeding:

All children need love and care in addition to nutrition for optimal growth and development. Therefore it is important that the caregivers cuddle the child lovingly, stroke them gently, sing lullabies while maintaining eye to eye contact while feeding. It should be noted that the caregivers have to be patient and allow the child to drink at his/her own pace without force feeding.

Supply of formula milk to orphans/infants without mothers/those who have been weaned off the breast (in affected areas):

The government should ensure the provision of stocks adequate for a minimum period of one month at a given time. The mechanism of distribution should be through an existing infrastructure preferably the Divisional Secretary system. Milk food companies and NGOo should be prevented from donating milk powder directly to caregivers of orphans as this is a violation of the breast milk code. As a result of the indiscriminate donation of milk powder even children who are being breast fed successfully may receive breast milk substitutes which would affect their Nutritional status in an adverse manner.

The MOH should ensure the adequate and regular supply of formula milk to those indicated by co-ordinating with the relevant authorities.

Complementary foods for infants 6-9 months of age on formula milk:

Complementary foods should be introduced to all infants on formula milk on completion of six months. The same instructions given for infants on breast milk should be followed (pg.4 of this document).

Complementary foods for infants 9 months to 1 year of age on formula milk:

Follow same instructions as for those on breast milk. They will receive formula milk in between instead of breast milk (refer pg.5 of this document).

1-5 year old children on full cream milk:

Follow same as instructions for those on breast milk (refer pg.5 and 6 of this document).

Feeding summary for all infants and young children (1 – 5 years):

Age	Infants on Breast milk		Infants on formula milk only	
	Types of feeds	Frequency	Types of feeds	Frequency
0 – to 6 months	Breast Milk only	Feed on demand	Milk (formula 1)	8 feeds per day
6+ – 9 months	Breast milk Mixed rice Cereal/Thriposha/CSB Fruits Biscuits	On demand 1-2 times 1 1 1	Milk (formula 2) Mixed rice Cereal/Thriposha Fruits Biscuits	5-6 feeds 1-2 times 1 1 1
9+-12 months	Breast Milk Rice and curry (adult type) Cereal/Thriposha/CSB Biscuits/Rusks Fruits	On demand 3 1 1 1	Milk (formula 2) Rice and curry (adult type) Cereal/Thriposha Biscuits/Rusks Fruits	4 3 1 1 1
1-5 years	Rice and curry (adult type) Cereal/Thriposha/CSB Fruits Biscuits/other snacks Breast milk/ Full cream milk	3-4 1 1 1 2	Rice and curry(adult type) Cereal/Thriposha/CSB Fruits Biscuits/other snacks Full cream milk	3-4 1 1 1 2

Feeding all infants and young children during an episode of diarrhea/other illness:

If a child develops diarrhea or other illness, feeding (including breast milk or formula milk) should be continued. Do not dilute milk feeds. During a bout of diarrhea ORS should be given

while increasing the intake of other fluids as well. Medical advice should be sort promptly especially for diarrhoea.

General guidelines regarding feeding all infants and young children (1-5 years):

The children affected by the natural disaster are ***more prone to infections*** due to

- Poor immunity due to the psychological trauma suffered
- Unhygienic practices

The risk may be higher among infants who have lost either the mother or both parents due to the following facts.

- Lack of breast milk
- Lack of love and care
- Severe psychological trauma aggravated by the loss of one or both parents

Therefore the underlying instructions in feeding infants and young children should be followed.

- Always wash hands preferably with soap and water before feeding baby.
- Always give boiled and cooled water to baby.
- Keep prepared food covered at all times.
- Use clean water to prepare food.
- Use a cup and spoon to feed babies (including milk). Cleaning and boiling the bottles may be difficult/not feasible especially for those living in temporary shelters.
- Give an extra meal during a bout of infection which should be continued for two weeks after recovery.

Provision of Vitamin A mega dose

All children over 6 months up to 14 years of age should be given a dose of Vitamin A mega dose stat if they have not received/not sure of receiving vitamin A mega dose within the past 6 months. Thereafter it can be given every six months until they continue to reside in the temporary shelters.

Dosage:

6 months to one year	-	100, 000 IU (one capsule)
One year and above	-	200,000 IU (two capsules)

Role of Health workers:

- While attending to the urgent work related to the disaster it is important for the MOH to understand that the Pregnant and Lactating mothers, Infants and Preschool Children affected by the disaster are an important group who need priority in the provision of health care. Area MOH should ensure optimal feeding practices in all temporary settlements and camps according to the guidelines given. Co-ordinate with the Divisional Secretary to ensure a regular and adequate supply of food to all camps and temporary settlements.

- PHM should visit all affected families having children under five years of age/ caretakers of children under five years who have lost both parents or the mother during the disaster and either living in camps/temporary settlements or with relatives and discuss in details the optimal feeding practices.

- MOH/PHI/PHM should make arrangements to get all foods for inmates in temporary settlements and camps prepared centrally under strict hygienic conditions with special emphasis on the complementary foods and appropriate foods for children aged 1-5 years. Volunteers could be identified and trained to serve in each camp under the guidance of the health workers.

- Health staff including volunteers should actively support the continuation of breast feeding, discourage the inappropriate use of formula milk and bottles unless strongly indicated and take protective measures to safeguard the mothers from the pressures of milk food companies. Mothers who have shifted to bottle feeding due to the uncontrolled distribution of formula milk during the disaster management should be advised, encouraged and supported to continue breast feeding as much as possible.

- Ensure that strict hygienic practices are adopted in the preparation, storage and feeding of infants and preschool children.

Please take steps to brief relevant categories of health workers in your area regarding the guidelines on feeding infants and young children and ensure that they comply with the instructions given.

These guidelines were prepared by the Family Health Bureau in consultation with the College of Pediatricians, MRI, Health Education Bureau and Nutrition co-ordination division of the Ministry of Health and UNICEF. Further WHO guidelines on feeding Infants and Young Children during emergencies were referred to and adopted accordingly.

Signed

Dr. Deepthi Perera

Director, Maternal and Child Health

Cc:

1. Secretary – Healthcare and Nutrition
2. Additional Secretary (Medical Services) – Healthcare and Nutrition
3. Director General of Health Services
4. DDG / PHS I
5. DDG / PHS II
6. DDG / MS
7. Epidemiologist
8. Director, HEB
9. Director, Nutrition
10. Director, Nutrition Co-ordination Division
11. Director, NIHS
12. President - SL College of Obstetricians
13. President - College of Paediatricians
14. President - College of Community Physicians

Annex:

Examples of meals that can be given for children aged one to five years.

Breakfast
Bread/Roti with margarine and jam/banana/ sambol / dhal curry
String hoppers with dhal curry or potatoe curry or kiri hodi and sambol
Hoppers and banana.
Boiled manioc or Bathala with grated coconut
Boiled Kadala/Cowpea/Green gram with grated coconut
Thosai with sambar (including vegetable portions) and grated coconut chutney
Pittu with banana or dhal curry or hath maluwa
10 am tea
100 ml of plain milk or tea added to milk or breast milk
Two marie biscuits/Thriposha aggala/ Curd with treacle/Yoghurt/ulundu vade
Lunch
Rice with two vegetables including green leafy vegetable and a small piece of fish/meat/dried fish/half an egg
Evening tea
Two biscuits/Thriposha/Sago pudding/Curd with treacle/Yoghurt/ulundu vade
Plain milk 100ml or tea added to milk or breast milk
Dinner
Rice with dhal curry, vegetables and a piece of fish/meat/dried fish or eggs
String hoppers with dhal curry and sambol
Thosai with sambar (inclusing vegetables portions) and chutnee with coconut