LOCALLY AVAILABLE IMPROVED RECIPES

FOR COMPLEMENTARY FEEDING

AND

CASE HISTORIES



Department of Nutrition, Medical Research Institute Ministry of Health

and UNICEF

2012

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ACKNOWLEDGEMENT

Dr. Malsha Gunathilaka Dr. Weedisha Gankanda Chavi Uduwaka Kaushalya Hewawitharana Director, MRI All staff of Department of Nutrition, MRI Mothers and children

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5 Locally Available Improved Recipes for Complementary Feeding and Case Histories

CHAPTER 1

INTRODUCTION

Sri Lanka has been very successful in improving the key health indicators especially those pertaining to mortality. Food availability at national level has been maintained reasonably satisfactorily by increasing domestic food supply, supplemented with imports to achieve food security at household level. A range of positive underlying factors contributed in the improvement of nutrition status such as improved food supply, effective demographic policies, no user-fee for health and education services. Poverty plays a central role in determining household food security and 19.2% of households are considered as poor according to the poverty line at national level which varied from 5% to 32.4% at district level. There is insufficient knowledge on infant and young child feeding, how best to make use of available food resources for the family in particular for the child, the need for good nutrition during adolescence, effect of poor nutrition on learning capacity and productivity; the consequences of consuming "wrong" type of food and food safety.

Complementary feeding is defined as the process starting when breast milk is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are needed, along with breast milk. The transition from exclusive breastfeeding to family foods – referred to as **complementary feeding** – typically covers the period from 6–24 months of age. This is a critical period of growth during which nutrient deficiencies and illnesses contribute globally to higher rates of undernutrition among children under five years of age.

WHO recommends that infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, infants should receive nutritionally adequate and safe complementary foods, while continuing to breastfeed for up to two years or more.

A 2008 national complementary feeding survey confirmed that it was poor complementary feeding practices rather than inadequate household food resources responsible for the growth faltering in Sri Lanka¹.

Overall Sri Lankan mothers were most commonly aware of hygiene (51 percent) followed by quality/diversity (32 percent); responsive feeding (23 percent); amount/quantity (17 percent); frequency (11 percent) and lastly density/consistency (7 percent)¹.

It is now imperative to address the next challenge by addressing the infant and young child feeding practices by focusing the complementary feeding messages on not just vague advice but specifics that deal in the amount/quantity, frequency; density/consistency; quality/diversity; hygiene as well as responsive feeding of a young child.

Under the prevailing context of poor nutrition situation and low level of awareness about effective and comprehensive complementary feeding, it is important to educate all the stakeholders and mothers on locally available recipes to strengthen the complementary feeding practices.

¹ Ministry of Healthcare and Nutrition, 2008, Factors associated with complementary feeding in Sri Lanka

This book was produced to improve the level of awareness on locally available complementary food and the nutrient composition. This will widen the knowledge base on complementary feeding (CF). It will be useful for health workers to impart the knowledge correctly during the counselling sessions.

PRINCIPLES OF COMPLEMENTARY FEEDING

1. Practice exclusive breastfeeding from birth to 6 months of age, and introduce complementary foods at 6 months of age (180 days) while continuing to breastfeed.

- Feed maximum of 30 minutes
- Keep at least 2 hour gap between meals
- Give water after each meal
- Add fish or meat to the feed everyday to avoid iron deficiency
- Not necessary to add all the food into the pulp of each meal, which will allow child to identify taste of different food
- Try to give variety of food without mixing to identify the texture and the taste

2. Continue frequent, on-demand breastfeeding until 2 years of age or beyond.

- Give breast milk after meal or in between meal
- It is not necessary to give any other milk if breast milk is given
- Can give milk products such as yogurt, curd, cheese etc.

3. Practice responsive feeding, applying the principles of psychosocial care.

- Better to feed the child while at one place
- Allow child to handle food
- If the child does not eat don't force the child. Stop the feeding. You can feed him in the next feed

4. Practice good hygiene and proper food handling.

- Wash mother's and child's hand prior to feeding with soap and water
- Wash mother's hand before preparing the food with soap and water

5. Start at 6 months of age with small amounts of food and increase the quantity as the child gets older, while maintaining frequent breastfeeding.

- Child's stomach size is very small
- Child need very small quantity of food in addition to the breast milk
- It can be divided into 3 or 5 feeds depend on the appetite of the child

6. Gradually increase food consistency and variety as the infant grows older, adapting to the infant's requirements and abilities.

7. Increase the number of times that the child is fed complementary foods as the child gets older.

8. Feed a variety of nutrient-rich foods to ensure that all nutrient needs are met.

- Don't use the same food everyday
- Use different vegetables and fruits everyday
- Add one yellow fruit or vegetables everyday
- Don't add too many vegetables or fruits
- Child can eat all the vegetables and fruits

9. Use fortified complementary foods or vitamin-mineral supplements for the infant, as and if needed

• When there is no time to prepare food try to use cereals added with vitamins and minerals

10. Increase fluid intake during illness, including more frequent breastfeeding, and encourage the child to eat soft, favourite foods. After illness, give food more often than usual and encourage the child to eat more.

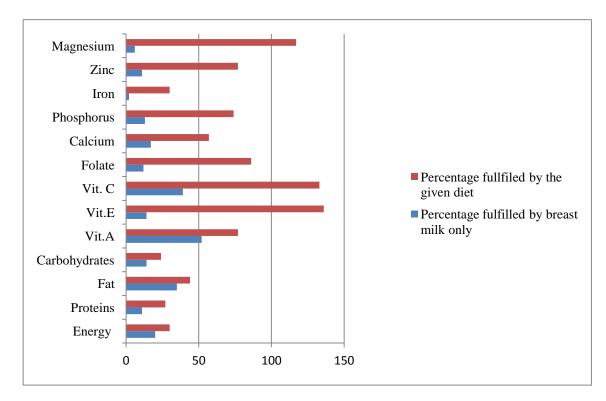
- Increase the frequency and give small feeds
- Give good quality food
- Give more fluids in addition to breast milk

MINIMUM ACCEPTABLE DIET FOR CHILDREN BETWEEN

Ageinmonths(days)andcalories6-8	Food groups Rice	Quantity per day 20g	Quantity in local (home based) measurement	Texture/typ e of food Well mashed	Frequency 2-3 meals/day plus
(181-269 days) (200 kcal/d)	Pulses Vegetables Fish Green leaves Milk products Fruits Coconut milk Oil	05g 15g 15g 15g 15g 30g 15ml 05g			frequent breast feeds. Add Breast milk 600g per day.
9-11 (270days to one year) (300 kcal/d)	Rice Pulses Vegetables Fish Green leaves Milk products Fruits Coconut milk Oil	45g 20g 15g 15g 15g 15g 30g 30g 05g		Coarsely chopped or finger foods	3-4 meals plus breast feeds.Add Breast milk 600g per day.
12-23 (1-2 years) (550 kcal/d)	Rice Pulses Vegetables Fish Green leaves Milk products Fruits Coconut Oil	70g 35g 30g 30g 30g 30g 50g 45g 10g		Family foods	3-4 meals plus breast milk after meals. Add Breast milk 600g per day.

6-59 MONTHS

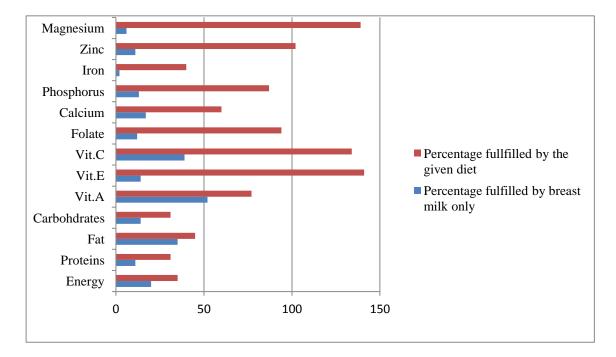
Percentage fulfilment of recommended nutritive values by the diet given above and breast milk only.



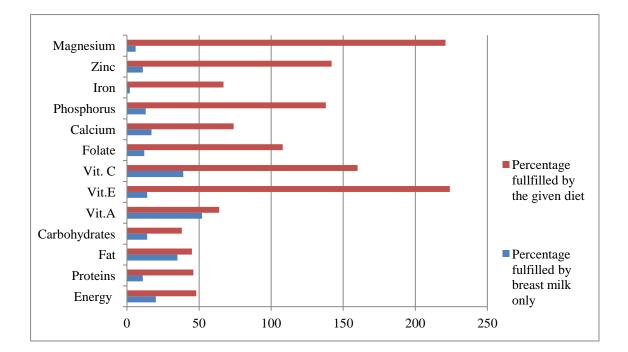
For 06 - 08 months

11

For09-11months



For 12-24 months



CHAPTER 2

COMPLEMENTARY FEEDING RECIPES

For 6-18 Months Old Children

Age 9 Months

1. Rice Kanji for Breakfast

Ingredients		
Rice parboiled Home pound	10 g	34.9 kcal
Spinach leaves fresh	10 g	1.7 kcal
Dhal red	10 g	34.3 kcal
Sprat	5 g	20.4 kcal
Cabbage	10 g	2.7 kcal
Avocado	10 g	21.5 kcal

Meal analysis: energy 115.5 kcal (48 %), carbohydrate 14.3 g (49 %)

2. Rice Thalapa for Lunch

Ingredients		
Rice parboiled Home pound	10 g	34.9 kcal
Carrot	10 g	4.8 kcal
Fish	10 g	11.3 kcal
Butter	5 g	37.1 kcal
Papaya Ripe	10 g	3.2 kcal

Meal analysis: energy 91.3 kcal (38 %), carbohydrate 9.6 g (33 %)

3. Potato Thalapa for Dinner

Ingredients

Potato Boiled	10 g	6.3 kcal
Fish	10 g	11.3 kcal
Gotukola	10 g	3.4 kcal
Pumpkin fresh	10 g	1.3 kcal
Banana Ripe	10 g	11.6 kcal

Meal analysis: energy 33.9 kcal (14 %), carbohydrate 5.1 g (18 %)

Total Energy 240kcal

Nutrient content	Analyzed value	recommended value/day	percentage fulfilment
energy	240.7 kcal	650	37
protein	12.7 g(21%)	19	66
fat	9.1 g(32%)		
carbohydrate	29.0 g(47%)		
Vit. A	112.6 µg	400	28
carotene	2.0 mg		
Vit. B1	0.2 mg	0.3	66
Vit. B2	0.2 mg	0.4	50
Vit. B6	0.0 mg	0.3	0
Folic acid	10.3 µg	80	12.8
Vit. C	27.5 mg	30	91
calcium	155.6 mg	450	34
magnesium	7.0 mg	54	12.9
iron	3.8 mg	17	22
zinc	0.4 mg	4	10
Vit. B12	0.0 µg	0.5	0
iodine	1.5 μg	125	1.2
niacine	4.8 mg	4	100
biotine	0.6 µg	6	10
pantoth. acid	0.0 mg	1.8	0
Vit. K	31.5 µg	10	100

Total Nutritive Value of Food/per day

Age 18 Months

1. Sweet Potato for Breakfast

Ingredients		
Sweet potato boiled	30 g	37.8 kcal
Coconut mature kernel	10 g	31.2 kcal
Banana Ripe	10 g	11.6 kcal

Meal analysis: energy 80.6 kcal (18%), carbohydrate 12.4 g (16%)

2. Rice for lunch

Ingredients		
Rice parboiled Home pound	50 g	174.6 kcal
Plantain Green	10 g	6.4 kcal
Fish	10 g	11.3 kcal
Mukunuwenna	10 g	7.3 kcal
Coconut milk	20 ml	4.9 kcal
Orange juice	10 ml	4.5 kcal

Meal analysis: energy 208.9 kcal (46 %), carbohydrate 43.2 g (55 %)

3. Rice for Dinner

Ingredients

Rice parboiled Home pound	25 g	87.3 kcal
Chicken egg fresh	25 g	38.6 kcal
Gotukola	10 g	3.4 kcal
Cucumber	10 g	1.3 kcal
Coconut milk	20 ml	4.9 kcal
Yoghurt min. 45% fat (dry matter)	50 ml	32.9 kcal

Meal analysis: energy 168.3 kcal (37 %), carbohydrate 23.4 g (30 %)

Total Energy 458 kcal

Nutrient	Analyzed	recommended	percentage
content	value	value/day	fulfilment
energy	457.8 kcal	875	52.3
protein	15.4 g(13%)	21	73
fat	9.8 g(18%)		
carbohydr.	79.1 g(68%)		
Vit. A	87.5 μg	400	21
carotene	0.9 mg		
Vit. B1	0.3 mg	0.5	60
Vit. B2	0.3 mg	0.5	60
Vit. B6	0.1 mg	0.5	20
tot. fol.acid	26.8 µg	160	16
Vit. C	16.7 mg	30	55
calcium	243.5 mg	500	48
magnesium	22.5 mg	60	37.5
iron	6.8 mg	9	75
zinc	1.7 mg	4	42
Vit. B12	0.5 μg	0.9	55
iodine	6.2 µg	65	9.5
niacine	5.2 mg	6	86
biotine	7.9 μg	8	98
pantoth. acid	0.6 mg	2	30
Vit. K	14.8 µg	15	98

Total Nutritive Value of Food/Per day

Age 24 Months

1. Breakfast

Ingredients		
Green gram	50 g	167.1 kcal
Coconut mature kernel	20 g	62.4 kcal
Meal analysis: energy 229.4 kcal (27 %), carbohydrat	te 30.2 g (21 %)	

2. Lunch

Ingredients			
Rice parboiled Home pound	50 g	174.6 kcal	
Beans green cooked	15 g	3.8 kcal	
Cheese slices	10 g	27.1 kcal	
Sarana	10 g	2.4 kcal	
Coconut milk	20 g	4.9 kcal	1
Apple fresh	10 g	5.2 kcal	

Meal analysis: energy 218.0 kcal (26 %), carbohydrate 42.3 g (30 %)

3. Dinner

Ingredients		
Rice parboiled Home pound	50 g	174.6 kcal
Mukunuwenna	10 g	7.3 kcal
Cabbage	10 g	2.7 kcal
Chicken	20 g	42.4 kcal
Coconut milk	20 g	4.9 kcal
Mandarin fresh	10 g	5.0 kcal

Meal analysis: energy 236.9 kcal (28 %), carbohydrate 43.2 g (30 %)

Saw Kanda Ingredients

ingrements		
Samolina	20 g	69.8 kcal
Coconut milk	10 g	2.4 kcal
Jaggary	10 g	34.1 kcal
Cashew nut	10 g	56.8 kcal

Meal analysis: energy 163.2 kcal (19 %), carbohydrate 26.7 g (19 %) Total Energy 847.5 kcal

Nutrient content	Analyzed value	recommended value/day	percentage fulfilment
energy	847.5 kcal	875	96
protein	33.1 g(15%)	21	100
fat	17.9 g(18%)		
carbohydr.	142.3 g (66%)		
Vit. A	46.0 µg	400	11.5
carotene	0.5 mg		
Vit. B1	0.5 mg	0.5	100
Vit. B2	0.3 mg	0.5	60
Vit. B6	0.1 mg	0.5	20
tot. fol.acid	10.3 µg	160	6.4
Vit. C	28.6 mg	30	95.3
calcium	401.0 mg	500	80.2
magnesium	25.0 mg	60	41
iron	14.0 mg	9	100
zinc	3.4 mg	4	85
Vit. B12	0.2 μg	0.9	22.2
iodine	4.1 µg	65	6.3
niacine	5.0 mg	6	83
biotine	1.1 µg	8	13.7
pantoth. acid	0.2 mg	2	10
Vit. K	6.3 μg	15	42

Total Nutritive Value of Food/Per day

More recipes

Mashed Boiled Rice with Milk

Ingredients

Cooked rice Milk Jaggery 1 cup 1 cup 3 table spoons

Method

Mix the rice, milk and cook the mixture. When it boils and becomes a little thick, add jaggery. Cook till mixture is thick and creamy.

Rice Omelette

Ingredients

Eggs	3
Hot boiled rice	150g
Butter	10g
Onion (chopped)	1/2cup
Oil	1 table spoon

Sweet Potato Mash

Ingredients

Sweet potato 1 Milk (or expressed breast milk)

Potato and Spinach Puree

Ingredients

Potato 1 Spinach 1 handful Milk

Method

Boil and mash the sweet potato. Steam the spinach and mash. Mix them with milk.

Lentils with Pumpkin

Ingredients

Masoor dhal3 tablespoonsPumpkin (peeled and diced)120gOil1 tea spoon

Method

Boil the dhal and pumpkin separately and mash them. Mix them and add oil.

Potato with Curd

Ingredients

Potato Curd Salt a pinch 1 medium 4 table spoon

Method

Boil, peel and mash potatoes. Beat curd. Add mashed potatoes and salt to the curd and mix well.

Green gram mixture

Ingredients	
Green gram (Mung)	2 tablespoons
Potato	20g
Spinach	20g
Curd	4 teaspoons
Lemon juice	few drops
Sugar	4 tablespoons

Method

Cook green grams and boil potato and steam spinach separately. Mash them and add lime juice, sugar and curd, then mix.

(instead of curd and sugar, yoghurt can be added)

SOUPS

Lentil soup

Ingredients	
Lentil	10g
Tomato	20g
Butter	¹ / ₂ tae spoon
Salt	a pinch

Method

Boil lentil and chopped tomato. Mash and train the mixture. Add butter and salt to this. Mix well.

Spinach soup in milk

Ingredients	
Spinach	50g
Milk	1/2cup

Method Chop the spinach and cook it in a little water till tender. Add it to milk and boil. Add a pinch of salt and serve.

Potato milk soup

Ingredients	
Milk	1cup
Water	3cups
Sliced potatoes	1 or 2
Butter	1 table spoon
Onion	1 large

Method

Pressures cook the milk, water, onion and potatoes for few minutes. Strain the mixture. Add the butter and seasoning and bring to a boil.

GUIDE TO INITIATE COMPLEMENTARY FEEDING

1-3 days after completing 6 months

Start with well mashed rice mixed with breast milk 2-3 teaspoons mixed with breast milk. Start with ¹/₂ a teaspoon.

4-7 days after completion of 6months

Give rice and dhal, well mashed, 3-4 teaspoons per feed. Can give 2 feeds a day Well ripe banana scraped with teaspoon ½ a teaspoon -1 once a day Breast feed in between

5-10 days after completing 6 months

Well mashed rice and dhal with fish, liver or sprats mixed with $\frac{1}{2}$ a teaspoon of oil or margarine. Give 4-5 teaspoons twice a day.

Add fruits eg scraped ripe banana or papaw 1-2 teaspoons once a day. Give breast milk in between

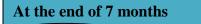


A mixture of well mashed rice, Pumpkin, carrot, fish/meat 1/2 teaspoon of oil or margarine can be given 4-5 teaspoons a day 2 times a day

Fruits like scraped ripe banana or papaw 1-2 teaspoons once a day should be given. Give breast milk in between

A mixture of well mashed rice pumpkin ,carrot, fish or meat, or ¹/₂ teaspoon of egg yellow little gotukola 1 teaspoon oil or margarine . ¹/₄ tea cup can be given 2-3 times a day.

Scraped banana, papaw or mango with little lime or lemon or orange juice 1-2 teaspoons a day should be given and breast feed in between



Mashed rice, vegetables, green leaves, fish or meat or egg or dhal. Give $\frac{1}{2}$ a tea cup per feed 2-3 times a day.

Scraped fruits, 2-3 teaspoons 2 times a day.

In addition Yoghurt/curd boiled yellow of egg 2-3 teaspoons once or twice a day.

Breast milk should be given in between meals.

7 Days after completion of 7 Months.

Rice finely chopped and mixed with dhal or green gram (germinating seeds are better)or meat/fish/sprats and carrot/banana or pumpkin green leafy vegetables cooked with coconut milk or fried with coconut oil.

 $\frac{1}{2}$ a tea cup per meal can be given 3 times a day.

Give breast milk after feeds

Potatoes boiled and mashed mixed with fish or 1/2 a egg yolk and fried with oil or margarine can also be given as main meals

Scraped fruit 4 teaspoons can be given after the meal.

Repeat as above but a little more than $\frac{1}{2}$ a tea cup can be fed 2-3 times a day.

In between these can give Yoghurt or curd about 4 teaspoons or $\frac{1}{2}$ a tea cup of Kola Kanda (Kanji made with green leafy vegetables rice or green gram flour and water)

Give breast milk after the meals.

On completion of 8 months.

Can feed with the same meal as above, 1/2 a cup or little more about 3 times a day Mashed fruits $\frac{1}{4}$ tea cup and in between the above main meals

- ➢ 6 teaspoons of yoghurt
- Fruits mixed with yoghurt or curd $\frac{1}{2}$ a teacup

> 1 biscuit or $\frac{1}{2}$ a slice of bread with butter or margarine. or central portion of a hopper can be given. Give breast milk after the meals.

Beginning of 9 months

> In addition to the above meals the white of the egg also can be given with the food.

> Chick pea, Coupee Maize well boiled and mixed with coconut scrapings can be given

String Hoppers, Rotti, Hoppers and Those can be given to the child for self feeding. Breast feed after the main meals.

9 months to completion of 11 months

- ➢ Mashed rice
- Mashed vegetables, meat, fish sprats .boiled egg can be given separately with rice.
- ➢ Give boiled vegetables to the child's hand to learn self feeding
- > Teach the names and colors of different foods and encourage the child to eat those with interest.

Give 3 main meals a day and ³/₄ cup per meal. Breast feed after main meals.

Give Family foods Give 2 snacks in between the 3 main meals. Give the following types and quantities of a variety of foods every day.

Appropriate foods for complementary feeding

What foods to give and Why, How to give the foods

- 1. Breast milk: continues to provide energy and high quality nutrients up to 23 months
- 2. Staple foods: provide energy, some protein (cereals only) and vitamins

Examples: cereals (rice, thanahal, maize, millet, wheat), roots; (manioc, yam, and potatoes) and starchy fruits (plantain, jak and breadfruit)

3. Animal-source foods: provide high quality protein, haem iron, zinc and vitamins

Examples: liver, red meat, chicken, fish, eggs (not good source of iron)

4. Milk products: provide protein, energy, most vitamins (especially vitamin A and folate), calcium

Examples: milk, cheese, yogurt and curds

5. Green leafy and yellow, orange-coloured vegetables: provide vitamins A, C, folate Examples: Gotukola, Kathurumurunga, spinach, broccoli, carrots, pumpkins, sweet yellow potatoes

6. Pulses: provide protein (of medium quality), energy, iron (not well absorbed) Examples: chickpeas, lentils, cowpeas, green gram, kidney beans, lima beans

7. Oils and fats: provide energy and essential fatty acids Examples: coconut milk, oils (coconut, soy or sesame), margarine, butter

8. Seeds: provide energy

Examples: grated coconut, peanut, cashew, kottong, sesame, pumpkin

Infants 6–11 months

- Continue breastfeeding
- Give adequate servings of:

— Thick porridge made out of rice, thanahal, maize, manioc, millet; add coconut milk, pulses, peanuts or sesame

— Mixtures of pureed foods made out of rice, potatoes, manioc, maize or millet orthanahal: mix with fish, pulses or seeds; add green vegetables

• Give nutritious snacks: egg, banana, bread, papaya, avocado, mango, other fruits, yogurt, milk and puddings made with milk, unsweetened biscuits or crackers, bread or *chapatti or rotti* with butter, margarine, sesame paste or honey, cooked potatoes

Children 12–23 months

- Continue breastfeeding
- Give adequate servings of:

— Mixtures of mashed or finely cut family foods made out of rice, potatoes, manioc, maize or millet or thanahal; mix with fish or lentils or pounded peanuts or sesame; add green vegetables

- Thick porridge made out of rice, maize, manioc, millet; add milk, lentil, sesame or sugar
 - Give nutritious snacks: egg, banana, bread, papaya, avocado, mango, other fruits, yogurt, milk and puddings made with milk, biscuits or crackers, bread or *chapati or rotti* with butter, margarine, or honey, cooked potatoes

REMINDER

Foods rich in *iron*

• Liver (any type), organ meat, red meat, foods fortified with iron

Foods rich in *Vitamin A*

• Liver (any type), egg yolk, orange coloured fruits and vegetables, dark green vegetables

Foods rich in *zinc*

• Liver (any type), organ meat, red meat, fish, shell fish, egg yolk

Foods rich in *calcium*

• Milk or milk products, small fish with bones (sprats)

Foods rich in *Vitamin C*

• Fresh fruits, tomatoes, lime, green leaves and vegetable

Type of food	Amount
1. Rice	2 cups
2. Vegetables	3Tablespoons
3. Green leafy vegetables.	¹ ∕2 cup
4. Milk or Milk Foods.	
> Milk	100ml
> Cheese	1piece size of a match box
Yoghurt/Curd	1 cup
Milk Powder	3 full teaspoons
5. Give one of the foods given below	
Fish or Meat	2 pieces size of a match box
➢ Eggs	1
Sprats	6-8
Small Sprats	2 Tablespoons
Dhal/Green Gram/Coupee	3 Tablespoons

6. 1 Ripe Fruit. Of any type

1-2 times a day.

Five keys to safer food:

- Keep clean
- Separate raw and cooked
- Cook thoroughly
- Keep food at safe temperatures
- Use safe water and raw materials

Good complementary foods are:

- Rich in energy, protein and micronutrients (particularly iron, zinc, calcium, vitamin A, vitamin C and folate);
- Not spicy or salty;
- Easy for the child to eat;
- Liked by the child;
- Locally available and affordable.

CHAPTER 3

CASE HISTORIES ON COMPLEMENTARY FEEDING

Child from Rural Community



Name: Baby Kamani Age: 9 months Address: Anuradhapura Family Background: Mother – Housewife Father – Farmer She is the second child in the family.

Problem: At the weighing centre PHM found that Kamani was underweight.

During the inquiry done by PHM following details were found regarding her diet,

- Complementary feeding was started on her at the age of seven months with rice Kunji water.
- She had not given any oil or coconut milk yet. Mother was waiting to start them after completion of tenth month when "Indul Katagema" takes place.
- Furthermore she has not given eggs, fish or meat yet thinking she would get stomach ache.
- Her grandmother prevented giving several kinds of vegetables and fruits telling those were cool or hot.

- Mother always tried to feed the child showing birds, other animals and vehicles, but Kamani always found this feeding process as a very unpleasant thing. She refused to eat more than few balls of food.
- Grandmother also didn't like to feed the child in front of the outsiders believing that it would cause some kind of indigestion in the child.
- ٠

Her 24 hour dietary recall and the corrected recommended diet for her are given below.

Diet given by mother		Recommended diet	
Food Item	Quantity	Food Item	Quantity
Breakfast		Breakfast	
Red rice	¹ / ₄ cup	Boiled and well mashed	¹ ∕2 cup
		Kadala	
Carrot	1 table spoon	Added oil to temper	1/2 tea spoon
		Kadala	
Cabbage	1 table spoon		
10.00 am		10.00 am	
Red rice kunji water	4-5 tea spoon	Curd	1⁄2 cup
Lunch		Lunch	
Rice paste	¹ /4 cup	Rice	¹ / ₄ cup
Green leafy	2 table spoons	Boiled egg	1
vegetables			
Vegetable	2 table spoons	yellow vegetables	1 table spoons
4.00 pm		4.00 pm	
Maree biscuits	2	Papaya	1 small piece
Banana(small)	1/2		
Dinner		Dinner	
Vegetable soup water	¹ / ₄ cup	Rice	1/4 cup
Sleeping time		Green leaves	1 table spoon
Breast milk		Boiled potatoes	1/2
		Give breast milk as required	

Mother was also given advices on correct feeding practices such as to give solid food rather giving liquids. And she was also asked to let the child eat herself with plate and spoon keeping her in one place.

Rather believing in myths, also asked to add oil, butter or coconut of one tea spoon daily to the child's food.

Her weight was measured regularly at the weighing centre and it seemed she was catching up her weight.

Child from Urban community



Name: Baby Kushani Age: 8 months Address: Borella Family Background: Mother – Clerk Father – Clerk

She is the only child in the family.

Problem: She was admitted to the Lady Ridgeway Hospital due to diarrhea. When looking at her growth chart the doctor treating her, found that she was moving towards the overweight region.

Her dietary history included the following details.

- Complementary feeding was started at the age of five months with commercially available cereal preparation (cerelac) mixed with lactogen milk.
- At the age of six months, mashed rice and vegetable were added to her daily diet.
- While mother was at work, child has been fed by her grandmother and the servant.
- Both mother and grandmother wanted to feed her all the time.

Diet given by mother		Recommended diet	
Food Item	Quantity	Food Item	Quantity
Break fast		Break fast	
Lactogen milk	120ml	Cooked rice	¹ / ₄ cup
Sugar	1 tea spoon	Vegetable	2 table spoon
Biscuits	2	Boiled small size potato	1
10.00 am		10.00 am	
Cerelac	3 table spoon with milk	Small banana	1
Lunch		Lunch	
Mashed rice	1⁄2 cup	Cooked rice	¹ / ₄ cup
Vegetable	3 table spoons	Fish/meat small size	1 piece
		(match box)	
Butter	2 tea spoons	Green leaves	1 table spoons
4.00 pm		4.00 pm	
Cheese	1 wedge	Yoghurt	1/2 cup
milk	120ml		
Dinner		Dinner	
Rusk biscuit with milk	1	Cooked rice	¹ /4 cup
		Boiled carrot	1 table spoon
		Butter	1 tea spoon
		Give breast milk as requir	ed

Her 24 hour dietary recall and the corrected recommended diet for her are given below.

Mother was also given advices on correct feeding practices such as to give solid food rather giving mashed food as the child is capable of putting food in to the mouth by herself. And also asked to let the child eat herself.

Rather than feeding the child all the time, limit it to maximum of 5 meals.

Child from Estate Community



Name: Baby Ganesh Age: 9 months Address: Nuwara Eliya Family Background: Mother – Tea plucker Father – Labourer He is the fifth child in the family.

Problem: He was admitted to the Nuwara Eliya hospital due to recurrent chest infection. There he was found to be malnourished.

When seeing the factors leading to malnutrition in this child, following details were found.

- He was exclusively breastfed only for 2 months. Since then he was given milk powder.
- From the age of five months, he was given normal biscuits (Maree) three times a day with milk.
- According to the advices given by the PHM, mother had started giving mashed rice and vegetable three times a day. With initiation of rice mother had limited giving breast milk.
- He was not given egg, green leaves like Nivithi, Mukunuvenna thinking they caused phlegm in the child.
- As they can't afford he was not given meat or fish frequently.

• Also mother was not adding any oil to his food thinking it was not good for the health.

Diet given by mother	Diet given by mother Recommended diet		
Food Item	Quantity	Food Item	Quantity
Break fast		Break fast	
Mashed rice	¹ / ₄ cup	Boiled Kawpi	1 cup
Sugar	1 tea spoon	Oil (to temper	¹∕₂ tea spoon
		Kawpi)	
10.00 am		10.00 am	
Maree biscuits		Banana(small)	1
Lunch		Lunch	
Mashed rice	¹ /4 cup	Rice	¹ / ₄ cup
Vegetable	2 table spoons	Green leaves	1 table spoon
		Dhal	2 table spoon
		Coconut milk	25 ml
4.00 pm		4.00 pm	
Boiled vegetable	1⁄2 cup	Papaya	1 small piece
with salt			
Dinner		Dinner	
Rice	¹ /4 cup	Rice	¹ / ₄ cup
Vegetable	2 table spoons	Vegetable	2 table spoon
Before go to sleep	Breast milk	Sprats powder	1 tea spoon
		Give breast milk as req	uired

His 24 hour dietary recall and the corrected recommended diet for him are given below.

Mother was also asked to add oil, butter or coconut one tea spoon daily to the child's food. And also she was advised to add varieties of locally available cheap fruits and vegetable to his diet.

Child from Muslim Ethnicity



Name: Baby Saheek Mohomad Age: 7 months Address: Maradana Family Background: Mother – Housewife Father – Driver He is the fourth child in the family.

Problem: He was admitted to the Lady Ridgeway Hospital due to fever. There he was found to be undernourished.

When seeing the factors leading to undernutrition in this child, following details were found.

- He had been started on complementary food at the age of six months with mashed rice mixed with breast milk. Then vegetables had been added gradually.
- But sea foods were not given frequently.
- When giving fruits mother preferred apple, grapes and oranges rather local fruits like papaya, water melon.
- As mother had to take care of four children, she didn't have much time to spend on Saheek's food.
- She has postponed giving meat till 9 months of age.

Diet given by mother		Recommended diet	
Food Item	Quantity	Food Item	Quantity
Break fast		Break fast	
Breast milk		Rice	¹ / ₄ cup
Mashed rice	¹ / ₄ cup	Boiled small potato	1/2
Vegetables	1 table spoon	Butter or oil	¹ ∕₂ tea spoon
Added oil	¹ / ₂ tea spoon		
10.00 am		10.00 am	
-		Papaya	1 small piece
Lunch		Lunch	
Mashed rice	¹ / ₄ cup	Rice	¹ / ₄ cup
Dhal	1 table spoon	Fish	1 small piece
Butter	1 table spoon	Vegetable	2 table spoons
5.00 pm		4.00 pm	
Biscuit	2	Yoghurt	¹ / ₂ cup
Breast milk			
Dinner		Dinner	
Chicken soup water	Table spoon 4-5	Rice	¹ / ₄ cup
		Green leaves	1 table spoon
Before go to sleep		Vegetable	2 table spoons
		Oil	¹ / ₂ tea spoon
Breast milk		Give breast milk as required	

His 24 hour dietary recall and the corrected recommended diet for him are given below.

Mother was also asked to limit addition of oil, butter or coconut to $\frac{1}{2}$ tea spoon per day to the child's food.

Child from Tamil Ethnicity



Name: Baby Vidushan Age: 9 months Address: Vavuniya Family Background: Mother – Housewife Father – Farmer She is the Fourth child in the family.

Problem: At the weighing centre PHM found that Child was not gaining weight properly.

During the inquiry done by PHM following details were found regarding his diet,

- Complementary feeding was started on him at the age of sixth months with mashed rice and dhal.
- Gradually he had been given family diet.
- But mother used to give well mashed food which the baby found unpalatable. So he refused to eat food most of the time.

Diet given by mother		Recommended diet	Recommended diet	
Food Item	Quantity	Food Item	Quantity	
Break fast		Break fast		
Breast milk		Boiled Green gram	¹ / ₄ cup	
Boiled Green gram	¹ /4 cup	Oil	1 tea spoon	
Scraped Coconut	1 table spoon			
10.00 am		10.00 am		
-		Small banana	1	
Lunch		Lunch		
Mashed rice	¹ /4 cup	Rice	¹ / ₄ cup	
Dhal	2 table spoon	Dhal	2 table spoon	
Brinjol	2 table spoon	leafy vegetable	2 table spoons	
4.00 pm		4.00 pm		
Breast milk		Mango	1 piece	
Dinner		Dinner		
Mashed rice	¹ /4 cup	Rice	¹ / ₄ cup	
Vegetable	2 table spoons	Vegetable	2 table spoons	
Oil	1 table spoon	Fish	1 small piece	
Sleeping time				
Breast milk				
		Give breast milk as required		

His 24 hour dietary recall and the corrected recommended diet for him are given below.

Mother was advised not to mash the food as the child can pick them.