

## Session 28: Foods to fill the energy gap

### Learning objectives

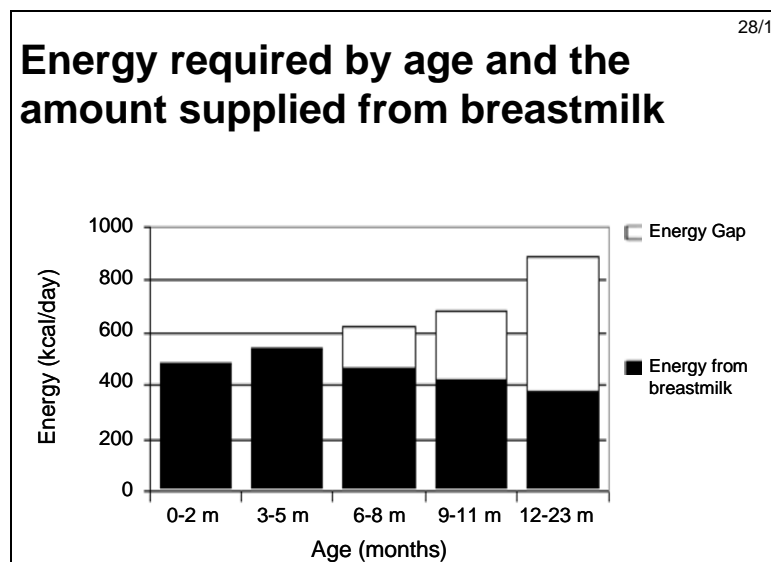
After completing this session, participants will be able to:

- List the local foods that can help fill the energy gap.
- Explain the reasons for recommending using foods of a thick consistency.
- Describe ways to enrich foods.
- List the Key Message from this session.

We talked earlier that as a baby grows and becomes more active, an age is reached when breastmilk alone is not sufficient to meet the child's needs. This is when complementary foods are needed.

In the previous session, we saw this graph of the energy needed by the growing child and how much is provided by effective breastfeeding.

**Slide 28/1. Energy gap again.**



As the young child gets older, breastmilk continues to provide energy; however, the child's energy needs have increased as the child grows.

If these gaps are not filled, the child will stop growing or grow only at a slow rate. The child who is not growing well may also be more likely to become ill or to recover less quickly from an illness.

As health workers, you have an important role to help families use appropriate complementary foods and feeding techniques to fill the gaps.

## **Foods that can fill the energy gap**

Think of the child's bowl or plate.

The first food we may think to put in the bowl is the family staple. Every community has at least one staple or main food. The staple may be:

- Cereals, such as rice, wheat, maize/corn, or oats.
- Starchy roots such as potato.
- Starchy fruits such as banana.

All foods provide some energy. However, people generally eat large amounts of these staples, and they provide much of the energy needed. Staples also provide some protein and other nutrients, but they cannot provide all the nutrients needed on their own. The staple must be eaten with other foods for a child to get enough nutrients.

Staples generally need preparation before eating. They may just need to be cleaned and boiled or they may be milled into flour or grated and then cooked to make bread or porridge.

Sometimes staple foods are specially prepared for young children. For example, wheat may be the staple and bread dipped in soup is the way it is used for young children. It is important that you know what the main staples are that families eat in your area. Then you can help them to use these foods for feeding their young children.

In rural areas, families often spend much of their time growing, harvesting, storing, and processing the staple food. In urban areas, the staple is often bought, and the choice depends on cost and availability.

Preparing the staple may take a lot of the caregiver's time. Sometimes a family will use a more expensive staple that requires less preparation or less fuel for cooking rather than use a cheaper staple.

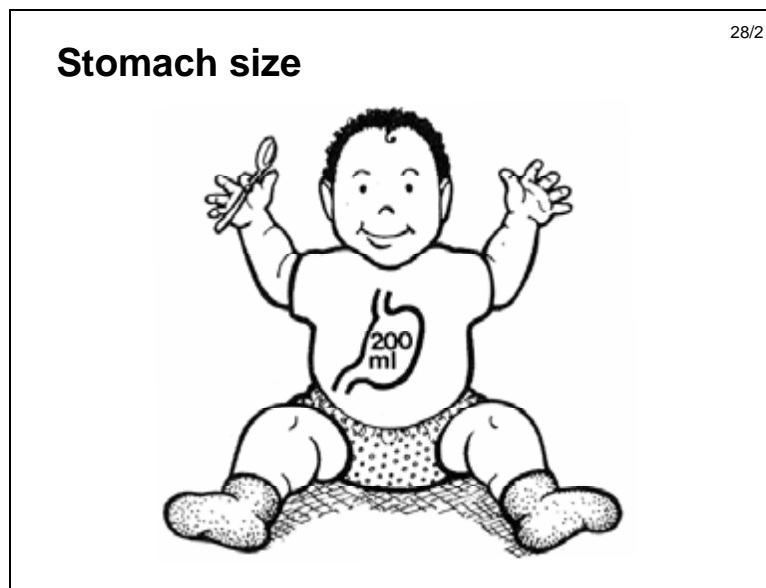
## **Using a thick consistency of food**

We have the staple in the child's bowl. Let us say this child will have (for example, potato, rice ...). The food may be thin and runny or it may be thick and stay on the spoon.

Often families are afraid that thick foods will be difficult to swallow, get stuck in the baby's throat, or give the baby constipation. Therefore, they add extra liquid to the foods to make it easier for the young child to eat. Sometimes extra liquid is added so that it will take less time to feed the baby.

It is important for you to help families understand the importance of using a thick consistency in foods for young children.

**Slide 28/2. Stomach size.**

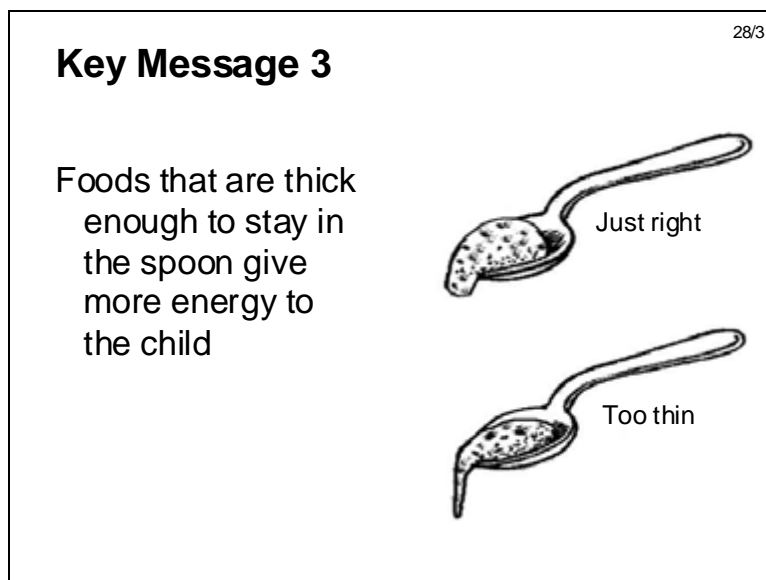


This is Seipati. He is 8 months old. At this age, Seipati's stomach can hold about 200 ml at one time.

Seipati's mother makes his porridge from maize flour. His mother is afraid Seipati will not be able to swallow the porridge, so she adds extra water.

When you are talking with families, give them the following Key Message.

**Slide 28/3. Key Message 3: Thick foods.**



Look at the consistency of the porridge on the spoon. This is a good way to show families how thick the food preparation should be. The food should be thick enough to stay easily on the spoon without running off when the spoon is tilted.

If families use a blender to prepare the baby's foods, this may need extra fluid to work. It may be better to mash the baby's food instead so that less fluid is added.

Porridge or food mixtures that are so thin that they can be fed from a feeding bottle, or poured from the hand, or that the child can drink from a cup do not provide enough energy or nutrients.

The consistency or thickness of foods makes a big difference in how well that food meets the young child's energy needs. Foods of a thick consistency help to fill the energy gap.

### **Ways to enrich foods**

Similar to the porridge, when soups or stews are given to young children, they may be thin and dilute and fill the child's stomach. There may be good foods in the soup pot, but little of the food ingredients are given to the child. It is mostly the watery part of the soup that is given.

Foods can be made more energy- and nutrient-rich in a number of ways:

#### **For a porridge or other staple**

- Prepare with less water and make a thicker porridge as we just saw. Do not make the food thin and runny.
- Toast cereal grains before grinding them into flour. Toasted flour does not thicken so much, so less water is needed to make porridge.

#### **For a soup or stew**

- Take out a mixture of the solid pieces in the soup or stew, such as beans, vegetables, meat, and the staple. Mash this to a thick puree and feed to the child instead of the liquid part of the soup.

**Add energy- or nutrient-rich food** to the porridge, soup, or stew to enrich it. This enriching is particularly important if the soup is mostly liquid, with few beans, vegetables, or other foods in it.

- Replace some (or all) of the cooking water with fresh milk, yoghurt, or cream.
- Add a spoonful of milk powder after cooking.
- Mix legume, pulse, or bean flour with the staple flour before cooking.
- Stir in a paste made from nuts or seeds such as peanut butter.
- Add a spoonful of margarine or oil.
- Add boiled and mashed fish to the porridge.
- Or add a boiled and mashed egg.

## Slide 28/4. Fats and oils.



Oils and fats are concentrated sources of energy. A little oil or fat, such as one-half teaspoon, added to the child's bowl of food, gives extra energy in a small volume. The addition of fatty/oily foods also makes thicker porridge or other staples softer and easier to eat. Fats and oils can also be used for frying foods, or spread on foods such as bread. The fat or oil should be fresh, as it can go bad with storage.

If a large amount of oil is added, children may become full before they have eaten all the food. This means they may get the energy from the oil but less of the other nutrients because they eat less food overall.

If a child is growing well, extra oil is usually not needed. The child who takes too much oil or fried foods can become overweight.

Sugar and honey are also energy rich and can be added to foods in small quantities to increase the energy concentration. However, these foods do not contain any other nutrients. Caregivers need to watch that sugary foods do not replace other foods in the diet. For example, sweets, sweet biscuits, and sugary drinks should not be used instead of a meal for a young child.

Essential fatty acids are needed for a child's growing brain and eyes, and for healthy blood vessels. These essential fatty acids are present in breastmilk (see Session 2).

For children more than 6 months old who are not breastfed, good sources of essential fatty acids are fish, avocado, nut pastes, and vegetable oil. Animal-source foods also provide essential fatty acids.

### **Fermented porridge**

Fermented porridge can be made in two ways—the grain can be mixed with water and set to ferment overnight or longer before cooking, or the grain and water can be cooked into porridge and then fermented. Sometimes, some of a previous batch of the fermented porridge (starter) is added to speed up the process of fermentation. Porridge made from germinated grain can also be fermented.

The advantages of using fermented porridge are:

- It is less thick than plain porridge, so more grain/flour can be used with the same amount of water. This means each cupful of porridge contains more energy and nutrients than plain (unfermented) porridge.
- Children may prefer the taste of 'sour' porridge and so eat more.
- The absorption of iron and some other minerals is better from the soured porridge.
- It is more difficult for harmful bacteria to grow in soured porridge, so it can be kept for a day or two.

Grain is also fermented to make alcohol. However, the short fermentation talked about here to make fermented porridge will not make alcohol or make the child drunk!

### **Germinated or sprouted flour**

Cereal or legume seeds are soaked in water and then left to sprout. The grains are then dried (sometimes toasted) and ground into flour. A family can do this at home, but it is more common to buy flour already germinated.

Mixed flours that include germinated (or malted) flour in addition to the main flour may be available in the store.

If families in your area use germinated grain, the following ways can be used to make a thicker and more nutritious porridge:

- Use this germinated flour to make porridge. This type of flour does not thicken much during cooking so less water can be used.
- Add a pinch of the germinated flour to cooked thick porridge that has cooled a little bit. The porridge should be boiled again for a few minutes after adding the germinated flour. This addition will make the porridge softer and easier for the child to eat.

Germination also helps more iron to be absorbed.

## FEEDING RECOMMENDATIONS FOR THE FIRST 2 YEARS

	0–5 months of age		6 months–11 months	12 months–23 months	2 years and older
<b>Feeding recommendations</b>	<ul style="list-style-type: none"> <li>Start breastfeeding immediately after birth (within the first hour)</li> <li>Breastfeed on demand day and night, at least 8 times in 24 hours</li> <li>Express breastmilk and leave for the baby when away</li> <li>Do not give other foods or fluids (not even water)</li> <li>If breastfeeding is not possible due to medical reasons, or if the mother is not available (e.g., not alive), advise on replacement feeding</li> </ul>		<ul style="list-style-type: none"> <li>Breastfeed on demand (HIV-positive mothers who chose exclusive breastfeeding should stop gradually)</li> <li>Introduce enriched complementary foods</li> <li>Food should be soft or mashed for easy chewing and swallowing</li> <li>Give milk and any type of fruit</li> <li>Enrich food with meat, fish, vegetables, beans, groundnuts, peas, and eggs</li> <li>Add one spoonful of extra oil/fat to the child's food</li> <li>Give 3 times per day if breastfed and 5 times if not breastfed</li> </ul>	<ul style="list-style-type: none"> <li>Breastfeed on demand</li> <li>Give adequate servings of enriched foods 5 times a day</li> <li>Give thick, enriched family foods</li> <li>Add small bits of meat, fish, vegetables, beans, groundnuts, peas, and eggs</li> <li>Give milk and any type of fruit</li> <li>Add one spoonful of extra oil/fat to the child's food</li> <li>Give 5 times a day</li> </ul>	<ul style="list-style-type: none"> <li>Give enriched family foods 3 times a day</li> <li>Give nutritious snacks in between the meals</li> <li>Give at least 2 cups of milk per day</li> </ul>
<b>Play and development</b>	<b>Up to 4 months</b> <b>Play:</b> Provide ways for your child to see, hear, feel, and move  <b>Communicate:</b> Look into your child's eyes and smile at him or her; communicate even while breastfeeding	<b>4–5 months</b> <b>Play:</b> Have large colourful things for your child to reach  <b>Communicate:</b> Talk to your child and get a conversation going with sounds or gestures	<b>Play:</b> Give your child clean, safe household things to handle, bang, and drop  <b>Communicate:</b> Respond to your child's sounds and interests; tell your child the names of things and people	<b>Play:</b> Give your child things to stack up, and to put into and take out of containers  <b>Communicate:</b> Ask your child simple questions; respond to your child's attempts to talk; play games like "bye"	<b>Play:</b> Help your child count, name, and compare things; make simple toys for your child  <b>Communicate:</b> Encourage your child to talk and answer your child's questions; teach your child stories, songs, and games
<b>Feeding during illness</b>	<b>Feeding recommendations for a child who has persistent diarrhoea</b> <ul style="list-style-type: none"> <li>If still breastfeeding, give more frequent, longer breastfeeds, day and night</li> <li>If taking other milk:               <ul style="list-style-type: none"> <li>Replace with increased breastfeeding OR</li> <li>Replace with fermented breastmilk products such as mafi or other yoghurt drinks, as these are tolerated better, OR</li> <li>Replace half the milk with nutrient-rich semisolid food such as fermented porridge, thick enriched porridge, or enriched staple food</li> </ul> </li> <li>For other foods, follow feeding recommendations for the child's age; encourage the child to feed</li> <li>Give an extra meal per day and continue until 1 month after diarrhoea has stopped</li> <li>Give vitamin/mineral supplements</li> </ul>			<b>Feeding during illness</b> <ul style="list-style-type: none"> <li>If breastfeeding, give more frequent breastfeeds per day and night</li> <li>If not able to breastfeed, express breastmilk and give by cup</li> <li>If not breastfeeding, give replacement feeds as per recommendations</li> <li>If feeding is poor, give small, frequent, enriched feeds, especially those that the child normally likes</li> <li>Give one extra meal per day up to 2 weeks after illness</li> <li>Encourage the child to feed</li> </ul>	

*From the National Infant and Young Child Feeding Guidelines.*





## Session 29: Foods to fill the iron and vitamin A gaps

### Learning objectives

After completing this session, participants will be able to:

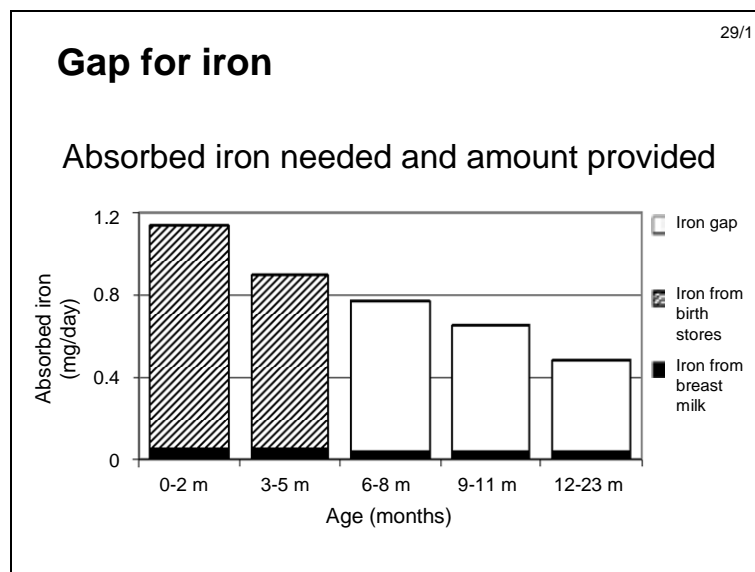
- List the local foods that can fill the nutrient gaps for iron and vitamin A.
- Explain the importance of animal-source foods.
- Explain the importance of legumes.
- Explain the use of processed complementary foods.
- Explain the fluid needs of the young child.
- List the Key Messages from this session.

So now, our child has an energy-rich, thick staple in his bowl to help fill the energy gap. In a similar way, there are also gaps for iron and vitamin A.

### Foods that fill the iron gap

The young child needs iron to make new blood, to assist in growth and development, and to help the body to fight infections.

#### Slide 29/1. Gap for iron.



In this graph, the top of each column represents the amount of absorbed iron that is needed per day by the child. A full-term baby is born with good stores of iron to cover his needs for the first 6 months (this is the striped/shaded area).

The black area along the bottom of the columns shows us that there is some iron provided by breastmilk for the duration of breastfeeding.

The young child grows faster in the first year than in the second year. This is why the need for iron is higher when the child is younger.

However, the iron stores are gradually used up over the first 6 months. After that time, we see a gap between the child's iron needs and what he receives from breastmilk. This gap needs to be filled by complementary foods (the white area is the gap).

If the child does not have enough iron, the child will become anaemic, will be more likely to get infections, and to recover slowly from infections. The child will also grow and develop slowly.

Zinc is another nutrient that helps children to grow and stay healthy. It is usually found in the same foods as iron, so we assume that if children are eating foods rich in iron, they are also receiving zinc.

Your goals, as health workers, are to:

- Identify local foods and food preparations that are rich sources of iron.
- Assist families to use these iron-rich foods to feed their young children.

### **The importance of animal-source foods**

We will now look at the importance of animal foods in the child's diet.

Foods from animals, the flesh (meat) and organs/offal, such as liver and heart, as well as milk, yoghurt, cheese, and eggs are rich sources of many nutrients.

The flesh and organs of animals, birds, and fish (including shellfish and tinned fish) are the best sources of iron and zinc. Liver is not only a good source of iron but also of vitamin A.

Animal-source foods should be eaten daily or as often as possible. This is especially important for the non-breastfed child. Some families do not give meat to their young children because they think it is too hard for the children to eat. Or they may be afraid there will be bones in fish that would make the child choke.

The following are several ways to make these foods easier for the young child to eat:

- Cooking chicken, liver, or other meat with rice or other staples or vegetables, and then mashing them together.
- Cutting meat with a knife to make soft, small pieces.
- Pounding dried fish so bones are crushed to powder and then sieving before mixing with other foods.

Animal-source foods may be expensive for families. However, adding even small amounts of an animal-source food to the meal adds nutrients. Organ meats, such as liver and heart, are often less expensive and have more iron than other meats.

Foods from animals, such as milk and eggs, are good for children because they are high in protein and other nutrients. However, milk and milk products, such as cheese and yoghurt, are not good sources of iron.

Milk fat (cream) contains vitamin A. Therefore, foods made from whole milk are good sources of vitamin A.

Foods made from milk (whole milk or skimmed or powdered) and any food containing bones, such as pounded dried fish, are good sources of calcium to help bones to grow strong.

Egg yolk is another source of nutrients and is rich in vitamin A.

It can be hard for children to meet their iron needs without a variety of animal-source foods in their diet. Fortified or enriched foods, such as fortified flours, pasta, cereals, or instant foods made for children, help to meet these nutrient needs. Some children may need

supplements if they do not eat enough iron-containing foods or if they have particularly high needs for iron.

When you are talking with families, give them the following Key Message.

**Slide 29/2. Key Message 4: Animal-source foods.**

29/2

### **Key Message 4**

Animal-source foods are especially good for children, to help them grow strong and lively

An illustration of various animal-source foods. It includes a glass of milk, a wedge of Swiss cheese, a slice of cheddar cheese, several brown and white eggs, a whole roasted chicken, a piece of salmon, and a stack of fish fillets.

**The importance of legumes**

**Slide 29/3. Key Message 5: Legumes.**

29/3

### **Key Message 5**

Peas, beans, lentils, nuts and seeds are also good for children

An illustration of various legumes and nuts. It shows a pile of brown lentils, a pile of red kidney beans, a pile of green peas, a pile of almonds, a pile of mixed nuts, and a jar of 'Old Fashioned Peanut Butter'.

Legumes or pulses, such as beans, peas, and lentils, as well as nuts and seeds, are good sources of protein. Legumes are a source of iron as well.

Some ways these foods could be prepared that would be easier for the child to eat and digest are:

- Soak beans before cooking and throw away the soaking water.
- Remove skins by soaking raw seeds and then rubbing the skins off before cooking.
- Boil beans then sieve to remove coarse skins.

- Toast or roast nuts and seeds and pound to a paste.
- Add beans and lentils to soups or stews.
- Mash cooked beans well.

Eating a variety of foods at the same meal can improve the way the body uses the nutrients. For example, combining a cereal with a pulse (rice and beans), or adding a milk product to a cereal or grain (maize meal with milk).

### Iron absorption

Pulses (beans, peas, chickpeas, etc.) and dark-green leaves are sources of iron. However, it is not enough that a food has iron in it; the iron must also be in a form that the child can absorb and use.

Slides 29/4, 29/5, and 29/6 on iron absorption.

29/4

## Iron Absorption

**The amount of iron that a child absorbs from food depends on:**

- the amount of iron in the food
- the type of iron (iron from meat and fish is better absorbed than iron from plants and eggs)
- the types of other foods present in the same meal (some *increase* iron absorption and others *reduce* absorption)
- whether the child has anaemia (more iron is absorbed if anaemic).

29/5

## Iron Absorption (2)

**Eating these foods at the same meal increases the amount of iron absorbed from eggs and plant foods such as cereals, pulses, seeds, and vegetables:**

- foods rich in vitamin C such as tomato, broccoli, orange, lemon and other citrus fruits
- small amounts of the flesh or organs/offal of animals, birds, fish and other sea foods.

## Iron Absorption (3)

Iron absorption is decreased by:

- Drinking teas and coffee
  - Foods high in fibre such as bran
  - Foods rich in calcium
- *Foods rich in calcium such as milk and cheese inhibit iron absorption, but are needed for calcium intake*

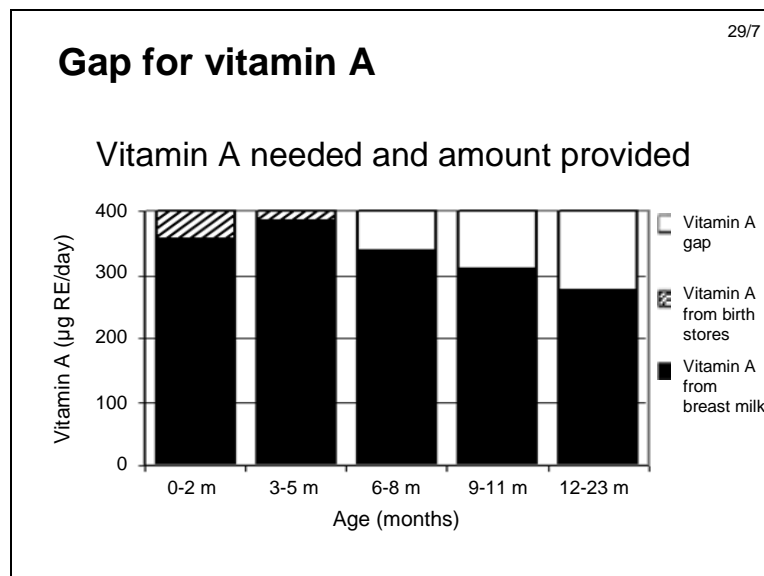


### Foods that can fill the vitamin A gap

We now have a staple in our child's bowl to fill the energy gap and foods that will help to fill the iron gap.

Another important nutrient is vitamin A, which is needed for healthy eyes and skin and to help the body fight infections.

### Slide 29/7. Vitamin A gap.



On this graph, the top of each column represents the amount of vitamin A that the child needs each day. Breastmilk supplies a large part of the vitamin A needed, provided that the child continues to receive breastmilk and the mother's diet is not deficient in vitamin A. As the young child grows, there is a gap for vitamin A that needs to be filled by complementary foods (the white area is the gap to be filled).

Good foods to fill this gap are dark-green leaves and yellow-coloured vegetables and fruits.

Carrots, green leafy vegetables (spinach, beet-root greens), pumpkin, and apricots are all fruits and vegetables that are good sources of vitamin A.

Other sources of vitamin A that we mentioned already were:

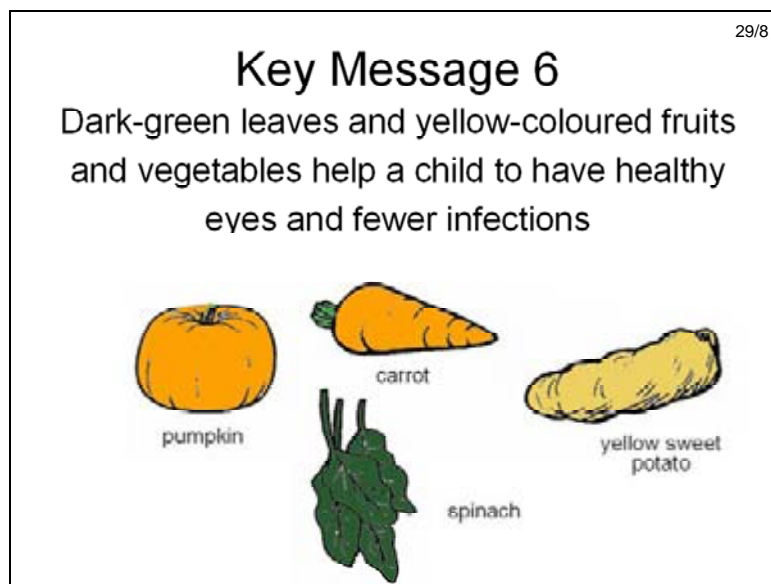
- Organ foods/offal (liver) from animals.
- Milk and foods made from milk, such as butter, cheese, and yoghurt.
- Egg yolks.
- Margarine, dried milk powder, and other foods that are fortified with vitamin A.

Vitamin A can be stored in a child's body for a few months. Encourage families to feed foods rich in vitamin A as often as possible when these foods are available, ideally every day. A variety of vegetables and fruits in the child's diet help to meet many nutrient needs.

Remember, breastmilk supplies much of the vitamin A required. A child that is not breastfed needs a diet rich in vitamin A.

There are vitamin A supplementation programmes in our country. These programmes provide mass-doses of vitamin A for infants and children aged 6 through 59 months, and for girls/women of reproductive age. For infants and young children, the dosages are provided every 6 months, with 100,000 international units given before 1 year of age and 200,000 international units given thereafter through the age of 5 years. For girls and women of reproductive age, mass-dose vitamin A is safe only when the girl/woman cannot become pregnant, so a single dose of 200,000 international units is provided to breastfeeding mothers during the period from delivery up to 6 weeks postpartum.

**Slide 29/8. Key Message 6: Vitamin A foods.**



When talking with caregivers, give this *Key Message: Dark-green leaves and yellow-coloured fruits and vegetables help a child to have healthy eyes and fewer infections.*

**The use of fortified complementary foods**

Fortified complementary foods are available in some areas (for example, flour or a cereal product with added iron and zinc).

Fortified processed complementary foods may be sold in packets, cans, jars, or from food stalls. These may be produced by international companies and imported, or they may be made locally. They may also be available through food programmes for young children.

When discussing fortified complementary foods with caregivers, there are some points to consider:

- **What are the main contents or ingredients?**  
The food may be a staple or cereal product or flour. It may have some vegetables, fruits, or animal-source foods in it.
- **Is the product fortified with micronutrients such as iron, vitamin A, or other vitamins?**  
Added iron and vitamins can be useful, particularly if there are few other sources of iron-containing foods in the diet.
- **Does the product contain ingredients such as sugar and/or oil to add energy?**  
These added ingredients can make these products a useful source of energy, if the child's diet is low in energy. Limit use of foods that are high in sugar and oil or fat but with few other nutrients.
- **What is the cost compared to similar home-produced foods?**  
If processed foods are expensive, spending money on them may result in families being short of money.
- **Does the label or other marketing imply that the product should be used before 6 months of age or as a breastmilk substitute?**  
Complementary foods should not be marketed or used in ways that undermine breastfeeding. To do so is a violation of the International Code of Marketing of Breast-milk Substitutes and subsequent resolutions. It should be reported to the company concerned and the appropriate government authority.

### **The fluid needs of the young child**

The baby who is exclusively breastfeeding receives all the liquid he needs in the breastmilk and does not require extra water. Likewise, a baby who is younger than 6 months of age and only receiving replacement milks does not need extra water.

However, when other foods are added to the diet, the baby may need extra fluids. How much extra fluid to give depends on what foods are eaten, how much breastmilk is taken, and the child's activity and temperature. Offer fluids when the child seems thirsty. Extra fluid is needed if the child has a fever or diarrhoea.

Water is good for thirst. A variety of pure fruit juices can be used also. However, too much fruit juice may cause diarrhoea and may reduce the child's appetite for foods.

Drinks that contain a lot of sugar may actually make the child thirstier, as his body has to deal with the extra sugar. If packaged juice drinks are available in your area, find out which ones are pure juices and which ones have added sugar. Fizzy drinks (sodas) are not suitable for young children.

Teas and coffee reduce the iron that is absorbed from foods. Teas and coffee have no nutrient value and they can make the infant irritable (and thus fussier at feeding). Discourage caregivers from giving infants and young children coffee or tea. If they are given, they should not be given at the same time as food or within 2 hours before or after food.

Sometimes a child is thirsty during a meal. A small drink will satisfy the thirst and they may then eat more of their meal.

Drinks should not replace foods or breastfeeding. If a drink is given with a meal, give only small amounts and leave most until the end of the meal. Drinks can fill up the child's stomach so that they do not have room for foods.

Remember that children who are not receiving breastmilk need special attention and special recommendations. A non-breastfed child aged 6 to 24 months of age needs approximately two to three cups of water per day in a temperate climate and four to six cups of water per day in a hot climate. This water can be incorporated into porridges or stews, but clean water should also be offered to the child several times a day, to ensure that the infant's thirst is satisfied.



**HANDOUT: WHAT IS IN THE BOWL?**



Choose foods that are available to families in your area to form one meal for a young child aged \_\_\_\_\_

What are Key Messages you could give for the foods that you have chosen?



## Session 30: Quantity, variety, and frequency of feeding

### Learning objectives

After completing this session, participants will be able to:

- Explain the importance of using a variety of foods.
- Describe the frequency of feeding complementary foods.
- Outline the quantity of complementary food to offer.
- List the recommendations for feeding a non-breastfed child.
- List the Key Messages from this session.

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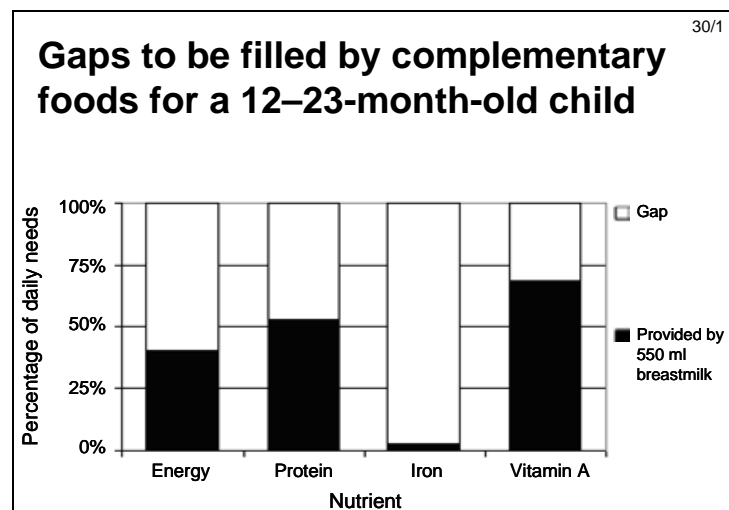
### The importance of using a variety of foods

Most adults and older children eat a mixture or variety of foods at mealtime. In the same way, it is important for young children to eat a mix of good complementary foods. Often the food preparations of the family meals include all or most of the appropriate complementary foods that young children need.

When you build on the usual food preparations in a household, it is easier for families to feed their young children a diet with good complementary foods.

Earlier we looked at the difference between young children's needs and the amount of energy, vitamin A, and iron supplied by breastmilk. If we put the day's needs onto a graph, it looks like this:

#### Slide 30/1. Gaps to be filled by complementary foods for a child 12–23 months old.



In Session 2, we talked about the importance of breastfeeding and the nutrients breastmilk can supply in the second year of life.

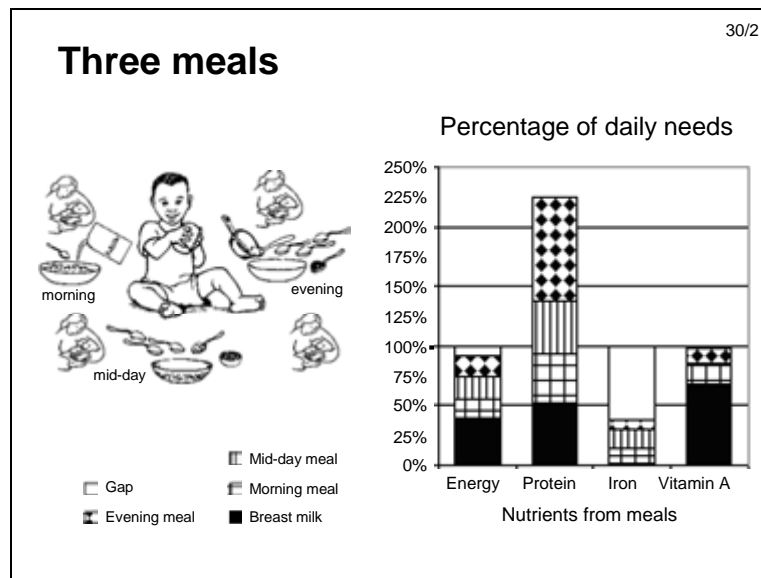
On this graph, the top line represents how much energy, protein, iron, and vitamin A are needed by an 'average' child aged 12–23 months. The dark section in each column indicates how much breastmilk supplies at this age if the child is breastfeeding frequently.

Notice that:

- Breastmilk provides important amounts of energy and nutrients even in the second year.
- None of the columns are full. There are gaps to be filled by complementary foods.
- The biggest gaps are for iron and energy.

Now we will look at an example of a day's food for a young child.

**Slide 30/2. Percentage of daily needs.**



This is Nthako, who is 15 months old. The daily needs for a child of this age are shown by the line at 100%.

Nthako continues breastfeeding<sup>6</sup> as well as eating complementary foods. The breastmilk gives energy, protein, some iron, and vitamin A.

This is what he has to eat in a day in addition to breastfeeding:

**Morning:** A bowl of thick porridge, with milk and a small spoon of sugar.

**Mid-day:** A full bowl of food—three big spoonfuls of rice, one spoon of beans, and half an orange. The vitamin C in the orange helps the iron in the beans to be absorbed.

**Evening:** A full bowl of food—three big spoons of rice, one spoon of fish, one spoon of green leaves.

Nthako's family gives him a variety of good foods and a good quantity at each meal. He has a staple plus some animal-source foods, beans, a dark-green vegetable, and an orange.

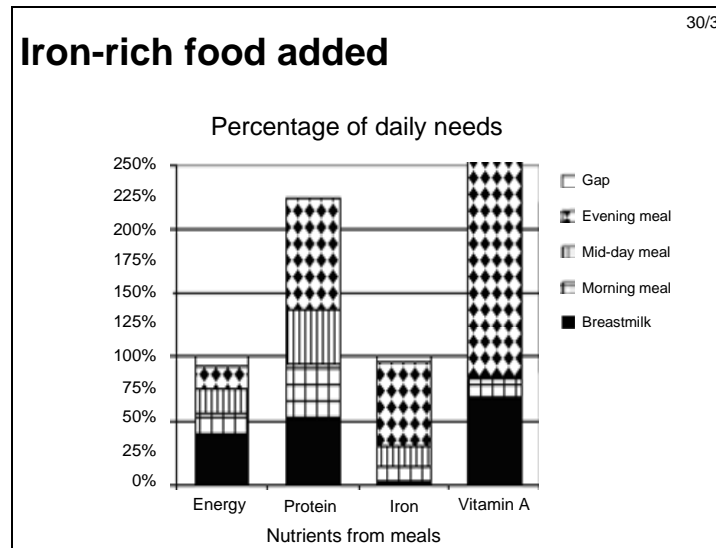
The protein and vitamin A gaps are more than filled. However, these meals do not fill this child's needs for iron or energy.

If meat is eaten in the area, Nthako could get more iron if he ate an animal-source food high in iron, such as liver or other organ meat. Animal-source foods are special foods for children. These foods should be eaten every day, or as often as possible.

<sup>6</sup> Approximately 550 ml of breastmilk per day.

If meat is eaten in the area, Nthako's family could give him a spoonful of liver instead of the fish. This fills his iron gap as shown in the following graph. If animal-source foods are not available, Nthako's family could give him radishes, green peas, boiled spinach, baked beans, dried apricots, or figs.

**Slide 30/3. Iron-rich food added.**



If foods fortified with iron are available, these should be used to help fill the iron gap. If an iron-rich food is not available, you as the health worker may need to recommend using a micronutrient supplement to ensure he gets sufficient iron.

Another nutrient that is difficult to fill the gap from family foods is zinc. The best sources of zinc in the diet are meat and fish, the same foods as iron-rich foods.

Foods fortified with zinc can be used when it is not possible for a young child to eat enough meat, fish, or liver.

However, in the graph, the energy gap is still not filled. Next, we will look at ways of filling this gap.

**The frequency of feeding complementary foods**

Nthako is already eating a full bowl of food at each meal. There is no space in his stomach for more food at mealtimes.

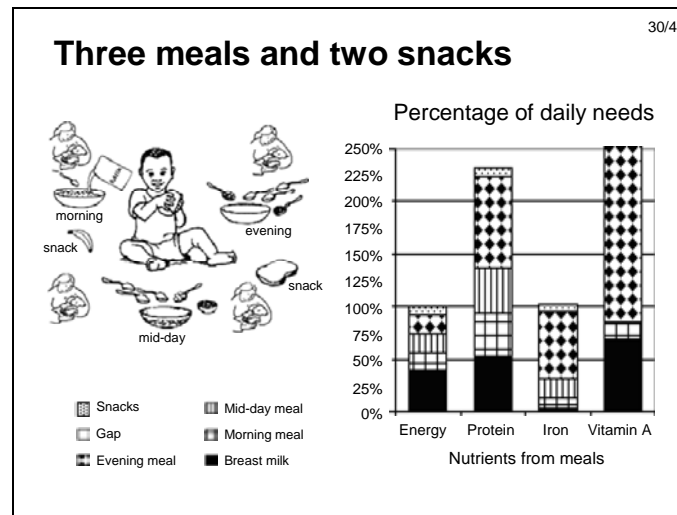
To fill the energy gap, Nthako's family can give him some food more often. They do not need to cook more meals. They can give some extra foods between meals that are easy to prepare. These extra foods are in addition to the meals—they should not replace them.

These extra foods are often called snacks. However, they should not be confused with foods such as sweets, crisps, or other processed foods, which may include the term 'snack foods' in their name. These extra foods may be easy to give; however, the child still needs to be helped and supervised while eating to ensure the extra foods are eaten.

Good snacks provide both energy and nutrients. Yoghurt and other milk products; bread or biscuits spread with butter, margarine, nut paste or honey; fruit; bean cakes; and cooked potatoes<sup>7</sup> are all good snacks.

Poor-value snacks are ones that are high in sugar but low in nutrients. Examples of these are fizzy drinks (sodas), sweet fruit drinks, sweets/candy, ice lollies, and sweet biscuits. These snacks may be easy to give; however, the child still needs to be helped and supervised while eating to ensure that snacks are eaten.

**Slide 30/4. Percentage of needs with three meals and two snacks.**



Nthako has two snacks added in the day—some banana in the mid-morning and a piece of bread in the mid-afternoon. These snacks help to fill his energy gap so he can grow well. Now all the gaps are filled.

In the last two sessions, we discussed the variety of foods needed to meet a child's needs. Suggest that families try each day to give a dark-green vegetable or yellow-coloured fruit or vegetable and an animal-source food in addition to the staple food.

When you are talking with caregivers, give the following Key Message.

**Slide 30/5. Key Message 7: Frequency of feeding.**

**Key Message 7**

A growing child needs 2-4 meals a day plus 1-2 snacks if hungry: give a variety of foods

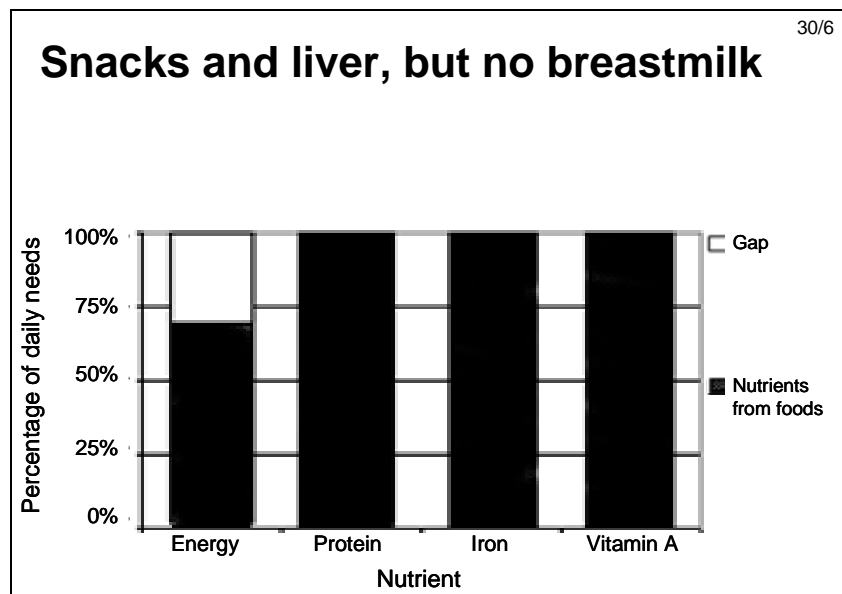
<sup>7</sup> Cooked moist foods (such as potatoes) should not be kept more than 1 hour if there is no refrigeration.

When you are talking with a family about feeding their young child more frequently, suggest some options for them to consider. It can be difficult to feed a child frequently when the caregiver has many other duties and when additional foods are expensive or hard to obtain. Other family members can often help. Assist the family to find solutions that fit their situation.

### Feeding the non-breastfed child

Now we will look at feeding the non-breastfed child. We have mentioned in previous sessions that a child who does not receive breastmilk needs special attention to ensure he gets sufficient food.

#### Slide 30/6. Snacks and liver, but no breastmilk.



If the child is not taking any breastmilk and is eating the foods listed earlier, including the snacks and liver, the chart would look like this.

There is still a very large gap for energy. One way to increase the energy intake is to give this child 200–240 ml (two half-cups) of milk (full-fat cow’s milk or milk from another animal or formula milk<sup>8</sup>) plus other dairy products, eggs, and other animal-source foods.

If no animal-source foods are included in the diet, fortified complementary foods or nutrient supplements are needed for a child to meet his nutrient needs. A child who does not have breastmilk needs special attention to ensure he receives sufficient food.

Children older than 6 months who are not receiving breastmilk need one to two cups of milk (where one cup is equal to 250 ml) and an extra one to two meals per day in addition to the amounts of food recommended. We will be looking at the amounts of food to offer children of different ages later in this session.

<sup>8</sup> Infant formula if affordable, acceptable, and available.

**Slide 30/7. Recommendations for feeding the non-breastfed child from 6 to 24 months.**

30/7

### **Recommendations for feeding the non-breastfed child from 6 to 24 months**

The non-breastfed child should receive:

- extra water each day (2-3 cups in temperate climate and 4-6 cups in hot climate)
- essential fatty acids (animal-source foods, fish, avocado, vegetable oil, nut pastes)
- adequate iron (animal-source foods, fortified foods or supplements)
- milk (1-2 cups per day)
- extra meals (1-2 meals per day)

In previous sessions, we said that these children:

- Should have extra water each day, particularly in hot climates to ensure that their thirst is satisfied: two to three cups in a temperate climate and four to six cups in hot climates.
- Should have essential fatty acids in their diet—from animal-source foods, fish, avocado, vegetable oil, and nut pastes.
- Should have adequate iron. If they are not receiving animal-source foods, then fortified foods or iron supplements should be considered.

In this session, we said that these children should receive one to two cups of milk per day, and an additional one to two meals.

### **The quantity of complementary food to be offered**

When a child starts to eat complementary foods, he needs time to get accustomed to the new tastes and textures of the foods. A child needs to learn the skill of eating. Encourage families to start with two to three spoonfuls of the food twice a day.

Gradually increase the amount and the variety of foods as the child gets older. By 12 months of age, a child can eat a small bowl or full cup of mixed foods at each meal as well as snacks between meals. Children vary in their appetite—these are guidelines.

As the child develops and learns the skills of eating, he progresses from very soft, mashed food to foods with some lumps that need chewing, and to family foods. Some family foods may need to be chopped for longer if the child finds them difficult to eat.



**Slide 30/8. Amounts of foods to offer**, which shows the age, texture of the food offered, and the amount of food an average child will usually eat at each meal.

<b>QUANTITIES OF FOOD TO OFFER A YOUNG CHILD FOR A MEAL</b>			
<b>Age</b>	<b>Texture</b>	<b>Frequency</b>	<b>Amount of food an average child will usually eat at each meal<sup>9</sup></b>
6–8 months	Start with thick porridge, well-mashed foods. Continue with mashed family foods.	2–3 meals per day plus frequent breastfeeds. Depending on the child’s appetite, 1–2 snacks may be offered.	Start with 2–3 tablespoonfuls per feed, increasing gradually to half of a 250-ml cup.
9–11 months	Finely chopped or mashed foods, and foods that baby can pick up.	3–4 meals plus breastfeeds. Depending on the child’s appetite, 1–2 snacks may be offered.	Half of a 250-ml cup/bowl.
12–23 months	Family foods, chopped or mashed if necessary.	3–4 meals plus breastfeeds. Depending on the child’s appetite, 1–2 snacks may be offered.	Three-quarters to one 250-ml cup/bowl.
If baby is not breastfed, give in addition: 1–2 cups of milk per day and 1–2 extra meals per day.			

As you can see in this chart, as the child gets older, the amount of food offered increases. Give as much as the child will eat with active encouragement (discussed further in Session 33).


When you are talking with families, give the following Key Message:

**Slide 30/9. Key Message 8: Amount of food.**

30/9

## Key Message 8

A growing child needs increasing amounts of food



<sup>9</sup> Adapt this chart to use a suitable local cup/bowl to show the amount. The amounts assume an energy density of 0.8 to 1 Kcal/g.

<b>Exercise: Amounts to offer</b>		
<b>Age of child</b>	<b>Frequency</b>	<b>Amount</b>
22 months	3 meals plus 2 snacks	Full cup
8 months	3 times per day	2/3 of a cup
12 months	3 meals plus 2 snacks	Full cup
7 months	3 times per day	2/3 of a cup
15 months	3 meals plus 2 snacks	Full cup
9 months	3 meals plus 1 snack	3/4 of a cup
13 months	3 meals plus 2 snacks	Full cup
19 months	3 meals plus 2 snacks	Full cup
11 months	3 meals plus 1 snack	3/4 of a cup
21 months	3 meals plus 2 snacks	Full cup
3 months	A trick question!	Only breastfeeding



## Session 31: Practical Session 3—Building confidence and giving support exercises

### Learning objectives

After completing this session, participants will be able to:

- Demonstrate appropriate use of the confidence and support skills.
- Use counselling cards with mothers on feeding children 6–24 months.

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### Refer to Counselling Cards 13–15.



Scenario 1: Mother of a healthy 19-month-old baby whose weight is on the median is worried that her child will become a fat adult so she will stop giving him milk.

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Scenario 2: Mother of a 7-month-old baby whose child is not eating any food that she offers. She plans to stop breastfeeding so often. Then he will be hungry and will eat the food.

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Scenario 3: Mother of a 12-month-old child who has diarrhoea. She thinks she should stop giving him any solids.

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Scenario 4: Mother of an 8-month-old child whose neighbour's child eats more than her child and he is growing much bigger. She thinks that she must not be giving her child enough food.

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Scenario 5: A mother of a 1-year-old child is worried about giving family foods in case he chokes.

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Scenario 6: A mother of a 10-month-old child who has not gained weight over the past 2 months.

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Scenario 7: A mother of an 18-month-old child who is refusing to eat vegetables and she is very worried.

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Scenario 8: A mother is giving her 9-month-old baby fizzy drinks. She is worried that he is not eating his meals well. He is growing well at the moment. She offers him three meals and one snack per day.

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Scenario 9: A 15-month-old child is breastfeeding and having thin porridge and sometimes tea and bread. He has not gained weight for 6 months, and is thin and miserable.

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Scenario 10: Mother with a 12-month-old baby who thinks that the baby is too old to breastfeed any longer.

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Scenario 11: Mother with a 15-month-old baby who is getting two meals per day.

**Notes**

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## Session 32: Gathering information on complementary feeding practices

### Learning objectives

After completing this session, participants will be able to:

- Gather information on complementary feeding practices by:
    - Demonstrating appropriate use of counselling skills.
    - Observing a mother and child.
    - Using the FOOD INTAKE JOB AID, 6–24 MONTHS, demonstrate appropriate use of the confidence and support skills.
- 

If you are going to counsel a mother on complementary feeding, you need to find out what her child is eating. This is quite complicated because children eat different things at different times in a day.

Earlier in the training, you looked at the GUIDE FOR EVALUATING INFANT FEEDING, 0–6 MONTHS, and learnt how to take a feeding history. Now we are going to look at assessing the intake of complementary feeds in detail.

### Gathering information on feeding practices

Earlier we learnt about assessing a breastfeed. We talked about how important it is to observe a mother and her baby, and the breastfeed itself. Observation is just as important when you are gathering information about complementary feeding as it is when you are assessing a breastfeed.

Enter ✓ in the Yes column if the practice is in place.  
 Enter your initials if a message is given (see FOOD INTAKE REFERENCE TOOL, 6–24 MONTHS, for the message).

FOOD INTAKE JOB AID, 6–24 MONTHS		
Child's name		
Date of birth		Age of child at visit
Feeding practice	Yes / number where relevant	Suggestion
Growth curve following or exceeding the trend line?		
Child received breastmilk?		
How many meals of a thick consistency did the child eat yesterday? (Use consistency photos as needed.)		
Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)?		
Child ate a dairy product yesterday?		
Child ate pulses, nuts, or seeds yesterday?		
Child ate a dark-green or yellow vegetable or yellow fruit yesterday?		
Child ate sufficient number of meals and snacks yesterday for his/her age?		
Quantity of food eaten at main meal yesterday was appropriate for child's age?		
Mother assisted the child at mealtimes?		
Child took any vitamin or mineral supplements?		
Child ill or recovering from an illness?		

A useful way to find out what a child eats is to ask the mother what the child ate yesterday. This information can be used to praise the good feeding practices that are there already and to identify any Key Messages to help improve practices.

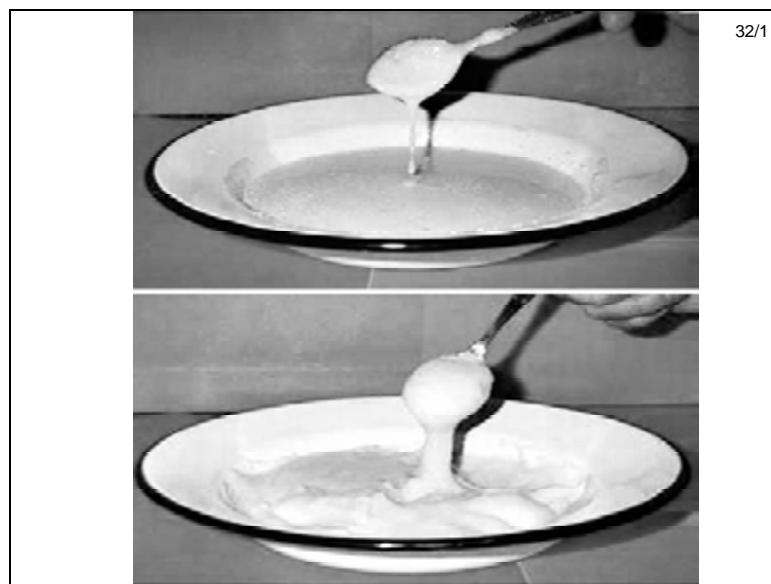
The FOOD INTAKE JOB AID, 6–24 MONTHS, helps you to do this.

The mother is asked to recall everything the child consumed the previous day. This includes all foods, snacks, drinks, breastfeeds, and any vitamin or mineral supplements.

As you can see, the first column has questions about feeding practices. As you listen to the mother, put a tick mark in the column to mark if the practice occurred the previous day.

You will see that most of the questions in the first column are closed questions. When you use this tool with a mother or caregiver to gather information, you should use your counselling skills, including open questions. We will see how this is used in a demonstration later.

**Slide 32/1**, showing two pictures of porridge.



When you ask a mother about the consistency of the food (if it was thin or thick), there might be some confusion about how thick you mean. Therefore, here are pictures to show thick and thin consistency. You show the food consistency pictures to the mother and ask which drawing is most like the food she gave to the child.

After you have listened to find out what the feeding practices are, you can praise some of the practices you wish to reinforce.

After you have taken the history and filled in the FOOD INTAKE JOB AID, 6–24 MONTHS, you then choose two or three Key Messages to give. It is important to listen to the mother first so that you gather all the information on complementary feeding before you decide which Key Messages to give to her. There is a column on the FOOD INTAKE JOB AID, 6–24 MONTHS, to indicate which items you discussed in more detail and gave Key Messages about.

It is important to choose just two to three Key Messages at a visit so the mother is not overwhelmed. Discuss the Key Messages you think are most important at this time and that the mother thinks that she can do.



**FOOD INTAKE REFERENCE TOOL, 6–24 MONTHS**

<b>Feeding practice</b>	<b>Ideal feeding practice</b>	<b>Key Messages to help counsel mothers</b>
Child received breastmilk?		
How many meals of a thick consistency did the child eat yesterday? (Use consistency photos as needed.)		
Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)?		
Child ate a dairy product yesterday?		
Child ate pulses, nuts, or seeds yesterday?		
Child ate a dark-green or yellow vegetable or yellow fruit yesterday?		
Child ate sufficient number of meals and snacks yesterday for his/her age?		
Quantity of food eaten at main meal yesterday was appropriate for child's age?		
Mother assisted the child at mealtimes?		
Child took any vitamin or mineral supplements?		
Child ill or recovering from an illness?		

### Instructions to complete the FOOD INTAKE JOB AID, 6–24 MONTHS

1. Greet the mother. Explain that you want to talk about the child's feeding.
2. Fill out the child's name, birth date, age in completed months or years, and today's date.
3. Ask to see the growth chart and observe the pattern of the growth.
4. Start with: '*(Mother name), let us talk about what (child's name) ate yesterday.*'
5. Continue with: '*As we go through yesterday, tell me all (name) ate or drank, meals, other foods, water, or breastfeeds.*'  
'*What was the first thing you gave (name) after he woke up yesterday?*'  
'*Did (child's name) eat or drink anything else at that time, or breastfeed?*'
6. If the mother mentions a preparation, such as a porridge or stew, ask her for the ingredients in the porridge or stew.
7. Then continue with:  
'*What was the next food or drink or breastfeed (child's name) had yesterday?*'  
'*Did (child's name) eat/drink anything else at that time?*'
8. Remember to 'walk' through yesterday's events with the mother to help her remember all the food/drinks/breastfeeds that the child had.
9. Continue to remind the mother you are interested in what the child ate and drank yesterday (mothers may talk about what the child eats/drinks in general).
10. Clarify any points or ask for further information as needed.
11. Mark on the FOOD INTAKE JOB AID, 6–24 MONTHS, the practices that are present. If appropriate, show the mother the photos of thin and thick consistency (for porridge and mixed foods). Ask her which drawing is most like the food she gave the child. Was it thick, stayed in the spoon, and held a shape on the plate? Or was it thin, flowed off the spoon, and did not hold its shape on the plate?
12. Praise practices you wish to encourage. Offer two or three Key Messages as needed and discuss how the mother might use this information.
13. If the child is ill on that day and not eating, give Key Message 10:  
*Encourage the child to drink and eat during illness and provide extra food after illness to help them recover quickly.*
14. See the child another day and use the FOOD INTAKE JOB AID, 6–24 MONTHS, when the child is eating again.

### Demonstration: Learning what a child eats

*Thabo is 11 months old. Me Puleng has brought him to the health centre for immunisation. While he is there, the health worker notices that Thabo's weight line is rising very slowly though he is generally healthy. So the health worker asks Me Puleng to talk to her about how Thabo is eating.*

- Health worker:* 'Thank you for coming today, Me Puleng. Your child's weight line is going upward, which shows that he has grown since I last saw him. (*Shows growth chart.*) Because Thabo lost some weight when he was ill, the line needs to rise some more. Could we talk about what Thabo ate yesterday?'
- Mother:* 'I am pleased that he has put on some weight, as Thabo has been ill recently and I was worried that he might have lost weight.'
- Health worker:* 'I can see you are anxious about his weight.'

<i>Mother:</i>	'Yes. I was wondering if I was feeding him the right sorts of food.'
<i>Health worker:</i>	'Perhaps we could go through everything that Thabo ate or drank yesterday?'
<i>Mother:</i>	'Yes, I can tell you about that.'
<i>Health worker:</i>	'What was the first thing you gave Thabo after he woke up yesterday?'
<i>Mother:</i>	'First thing, he breastfed. Then about 1 hour later, the baby had a small amount of bread with butter, and several pieces of apricot.'
<i>Health worker:</i>	'Breastfeeding, then bread, butter, and some pieces of apricot. That is a good start to the day. What was the next food or drink or breastfeed that he had yesterday?'
<i>Mother:</i>	'At mid-morning, the baby had some porridge with milk and sugar.'
<i>Health worker:</i>	'Which of these drawings is most like the porridge you gave to Thabo?' (Shows two consistency pictures.)
<i>Mother:</i>	'Like that thick one.' (Points to the thick consistency.)
<i>Health worker:</i>	'A thick porridge helps Thabo to grow well. After the porridge mid-morning, what was the next food, drink, or breastfeed Thabo had?'
<i>Mother:</i>	'Let's see, in the middle of the day, he had soup with vegetables and beans.'
<i>Health worker:</i>	'How did the baby eat the vegetables and beans?'
<i>Mother:</i>	'I mashed them all together and added the liquid of the soup so he could eat it.'
<i>Health worker:</i>	'Which picture is most like this food that you fed Thabo yesterday in the middle of the day?' (Shows two consistency pictures.)
<i>Mother:</i>	'This one—the more runny one.' (Points to the thin consistency.)
<i>Health worker:</i>	'Was there anything else that Thabo had at mid-day yesterday?'
<i>Mother:</i>	'Oh yes, he had a small glass of fresh orange juice.'
<i>Health worker:</i>	'That is a healthy drink to give to Thabo. After this meal at mid-day, what was the next thing he ate?'
<i>Mother:</i>	'Let's see, he didn't eat anything more until we all ate our evening meal. He breastfed a few times in the afternoon. In the evening, he ate some rice, a spoonful of mashed greens, and some mashed fish.'
<i>Health worker:</i>	'Breastfeeding will help Thabo to grow and to stay healthy. It is good that you are still breastfeeding. Which of these pictures looks most like the food the baby ate in the evening?' (Shows two consistency pictures.)
<i>Mother:</i>	'This thicker one. I mashed up the foods together and it looked like that.'
<i>Health worker:</i>	'Did Thabo eat or drink anything more for the evening meal yesterday?'
<i>Mother:</i>	'No, nothing else.'
<i>Health worker:</i>	'After that or during the night, what other foods or drinks did Thabo have?'
<i>Mother:</i>	'Thabo breastfeeds during the night, but he has no more foods.'
<i>Health worker:</i>	'Using this bowl, can you show me about how much food Thabo ate at his main meal yesterday?' (Shows typical bowl.)
<i>Mother:</i>	(Points to bowl.) 'About half of that bowl.'
<i>Health worker:</i>	'Thank you. Who helps Thabo to eat, or does he eat by himself?'
<i>Mother:</i>	'Oh, yes. Thabo needs help. Usually I help him, but sometimes if my mother or sister is there, they will help also.'
<i>Health worker:</i>	'Is Thabo taking any vitamins or minerals?'
<i>Mother:</i>	'No, not now.'
<i>Health worker:</i>	'Thank you for telling me so much about what Thabo eats.'

*Ask: Is the growth curve heading upward?*

Wait for a few replies and then continue.

- Yes; however, it is going upward very slowly.

*Ask: Child receives breastmilk?*

Wait for a few replies and then continue.

- Yes, frequently. A practice to praise.

*Ask: How many meals of a thick consistency?*

Wait for a few replies and then continue.

- Two, the porridge and the evening meal of rice, mashed greens, and fish. However, the soup given at lunchtime was thin, so this might be something to discuss with the mother.

*Ask: Did the child eat an animal-source food yesterday?*

Wait for a few replies and then continue.

- Yes, fish in the evening.

*Ask: Did he eat a dairy product?*

Wait for a few replies and then continue.

- Yes, there was milk on the porridge.

*Ask: Did he eat pulses or nuts yesterday?*

Wait for a few replies and then continue.

- Yes, beans at mid-day. And the child had juice with the meal, which helps with iron absorption.

*Ask: Did he eat a dark-green or yellow-coloured fruit or vegetable yesterday?*

Wait for a few replies and then continue.

- Yes, some apricot in the morning, some green vegetables in the evening, maybe some green or yellow vegetables in the pot at mid-day. If you need to, you can ask for more information about the kinds of vegetables. However, do not ask many questions about details if the answers are not important. In this example, you have learnt by listening that the child had some green vegetables and a yellow fruit so has met the recommendation. You do not need to ask more questions about types of vegetables.

*Ask: What was the number of meals and snacks?*

Wait for a few replies and then continue.

- Three meals and one snack.

*Ask: Is three meals and one snack adequate for a child aged 11 months?*

Wait for a few replies and then continue.

- Yes, it is adequate.

*Ask: Was the quantity of food eaten at the main meal adequate for the child's age?*

Wait for a few replies and then continue.

- Yes, the child is 11 months old and received about half of a bowl.

*Ask: Mother assists with eating?*

Wait for a few replies and then continue.

- Yes.

*Ask: Any vitamins or mineral supplements?*

Wait for a few replies and then continue.

- Not at this time. There is no Key Message about vitamins or mineral supplements. However, if the child is not eating animal-source foods and is not likely to eat them, he may need an iron supplement.

*Ask: Was the child healthy and eating?*

Wait for a few replies and then continue.

- Yes.

This summary helps you to pick out the practices to praise and specific Key Messages to give to this mother. If the mother has not mentioned that the child has received some of the food items or practices listed in the column, then the health worker should ask the mother directly. If an answer is unclear, you can ask for more information.

Now the health worker needs to choose which practices to praise and two or three Key Messages to discuss.

*Ask: What practices of this mother could you praise and support to continue?*

Wait for a few replies and then continue. Write the points that participants suggest on the flip chart. Refer to these responses as you make the following points:

- This mother had many good practices you could praise and support:
  - Continuing breastfeeding.
  - Frequent meals and snacks.
  - Variety of foods used, including staple, some animal-source foods, fruit, and vegetables.
  - Thick consistency for some meals.
  - Assistance with eating.

*Ask: What are the main points on which to give relevant information? Which Key Message could you give to this mother?*

Wait for a few replies and then continue.

- After you praise the practices, you would discuss:
  - The amount of food in each meal. Suggest increasing so that by 12 months, the child has a full bowl.
  - Making the food a thick consistency at each meal (remember the bean and vegetable meal was thin).

Mention the following:

- For this particular child, the growth curve was rising very slowly. Therefore, the amount of food at each meal and giving a thick consistency are particularly important suggestions to discuss.
- Gather all the information first and then discuss with the mother practices which could be improved, giving the relevant Key Messages.
- The health worker puts her initials next to the Key Messages she discussed.
- You will have an opportunity to practise how to gather information on feeding practices with actual mothers later in the course; now we will practise with each other.

Ask if there is any point the participants would like made clearer or any questions.

## Stories for food intake practice

### Story 1:

*Child is 15 months old. Healthy, growing well, and eating normally. Breastfeeds frequently.*

Early morning: Breastfeed, half bowl of thick porridge, milk, and small spoon of sugar.

Mid-morning: Small piece of bread with nothing on it, breastfeed.

Mid-day: Three large spoons of rice, two spoons of mashed beans ( $\frac{3}{4}$  of a bowl), pieces of mango ( $\frac{1}{4}$  of a bowl), drink of water.

Mid-afternoon: Breastfeed, one small biscuit/cookie.

Evening: Two large spoons of rice, one large spoon of mashed fish, two large spoons of green vegetables ( $\frac{3}{4}$  of a bowl), drink of water.

Bedtime: Breastfeed.

During night: Breastfeed.

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### Story 2:

*Child is 9 months old. Not ill at present. Not difficult to feed. Not breastfeeding.*

Early morning: Half cup of cow's milk, half bowl of thin porridge, spoon of sugar.

Mid-morning: Half a mashed banana, small drink of fruit drink.

Mid-day: Thin soup, one spoon of rice, and one spoon of mashed beans (half bowl), drink of water.

Mid-afternoon: Sweet biscuit, half cup of cow's milk.

Evening: Two spoons of rice, one spoon of mashed meat and vegetable from family meal (half a bowl), drink of water.

Bedtime: Piece of bread with no spread, half cup of cow's milk.

During the night: drink of water.

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### Story 3:

*Child is 18 months old. Not ill at present. Not difficult to feed. Breastfeeds.*

Early morning: Full bowl of thick porridge with sugar, breastfeed.

Mid-morning: Cup of diluted fruit drink.

Mid-day: Three spoons of rice, three spoons of mashed beans and vegetables from the family meal (one full bowl), half cup of diluted fruit drink.

Mid-afternoon: Large piece of bread with jam, breastfeed.

Evening: Whole mashed banana, one sweet biscuit, cup of diluted fruit drink.

Bedtime: Breastfeed.

During the night: Breastfeed.

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### Story 4:

*Child is 12 months old. Growing very slowly.*

Early morning: Breastfeed. Half a bowl of thin porridge.

Mid-morning: Two small spoons of mashed banana, breastfeed.

Mid-day: Four spoons of thin soup, one spoon of mashed meat/vegetables/potato from the soup ( $\frac{3}{4}$  of a bowl), breastfeed.

Mid-afternoon: Breastfeed, two spoons mashed mango.

Evening: Two spoons of mashed meat/vegetable/potato from family meal (less than half a bowl), breastfeed.

Bedtime: Breastfeed, sweet biscuit mashed in cow's milk ( $\frac{1}{4}$  cup).

During the night: Breastfeed.

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**Story 5:**

*Child is 6½ months old and healthy. Growing well. Easy to feed. Has recently started complementary feeds.*

Early morning: Breastfeeds.

Mid-morning: Three spoons of thin porridge with milk, breastfeeds.

Mid-day: Breastfeeds.

Mid-afternoon: Breastfeeds.

Evening: Three spoons of mashed family meal—potato, fish, carrots. Thick consistency.

Bedtime: Breastfeed.

During night: Breastfeeds.

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**Story 6:**

*Child is 8 months old. Not ill. Does not show much interest in eating.*

Early morning: Breastfeed, two spoons thin porridge with milk and sugar (less than half a bowl).

Mid-morning: Breastfeed.

Mid-day: One spoon rice, one spoon mashed beans, small piece of egg, one spoon mashed greens, from the family meal (half a bowl). Drink of water.

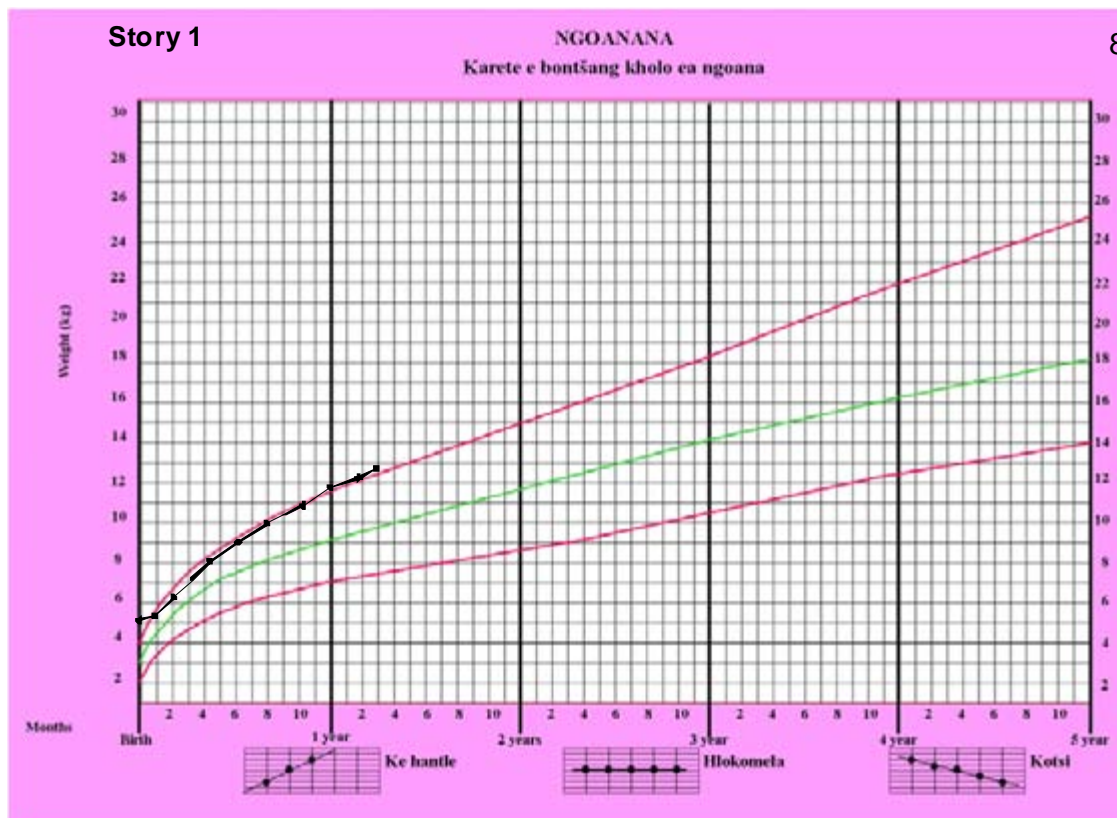
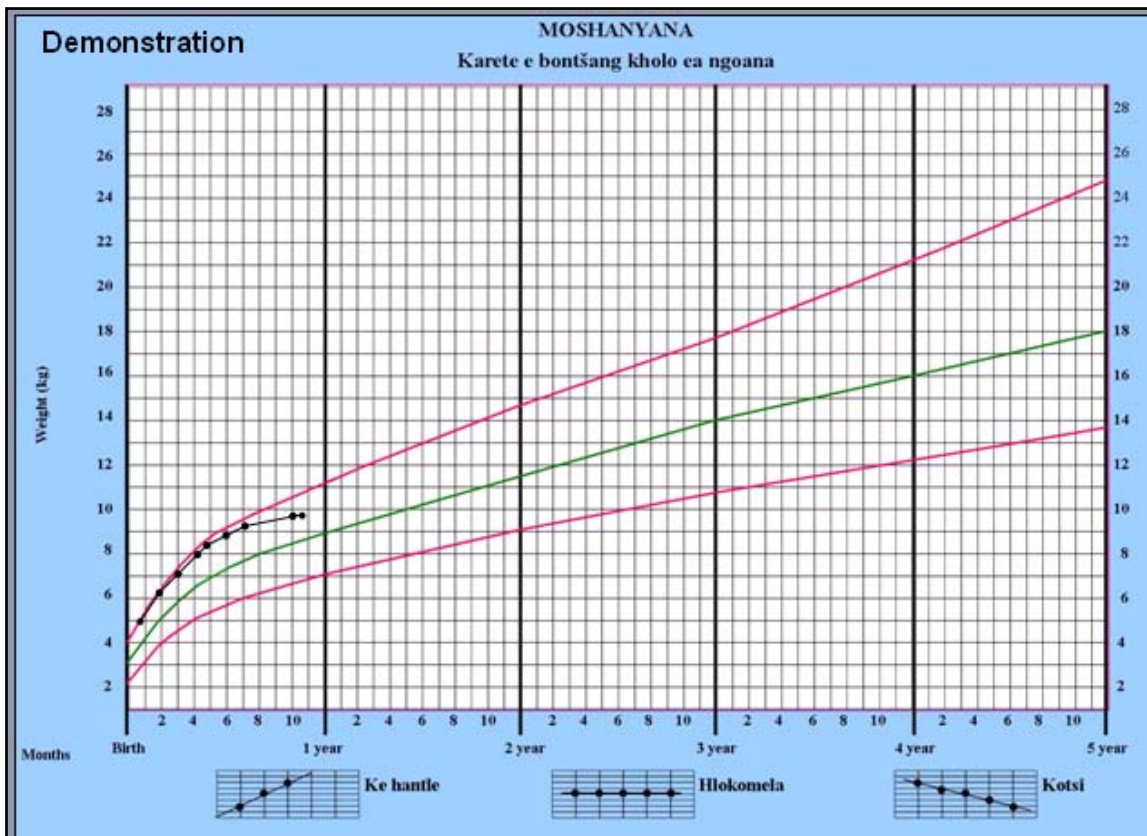
Mid-afternoon: One sweet biscuit, breastfeed.

Evening: One piece of bread with some butter, breastfeed.

Bedtime: Breastfeed.

During the night: Breastfeed.

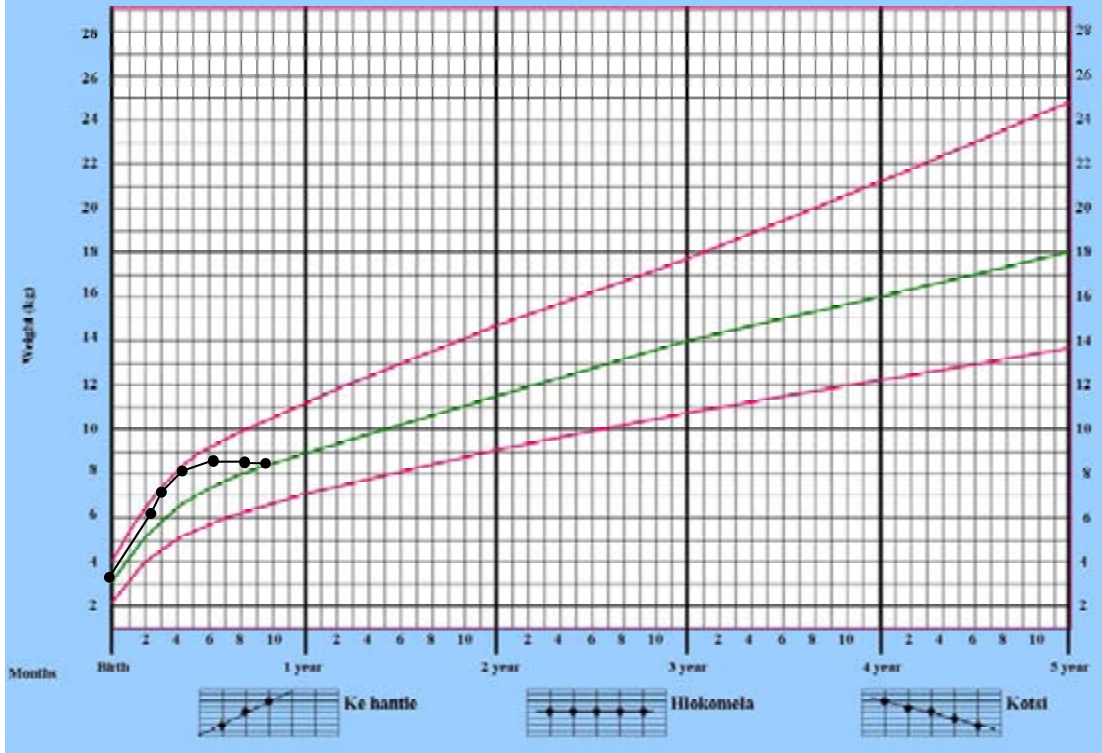
## Weight charts for session





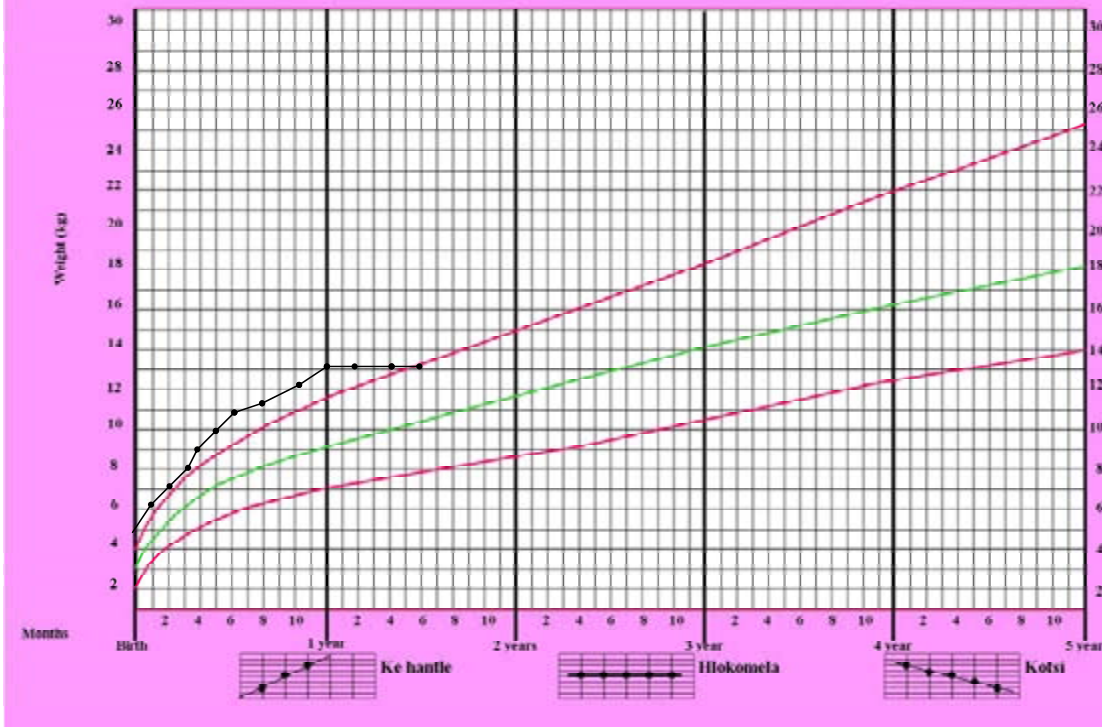
### Story 2

MOSHANYANA  
Karete e bontšang kholo ca ngoana



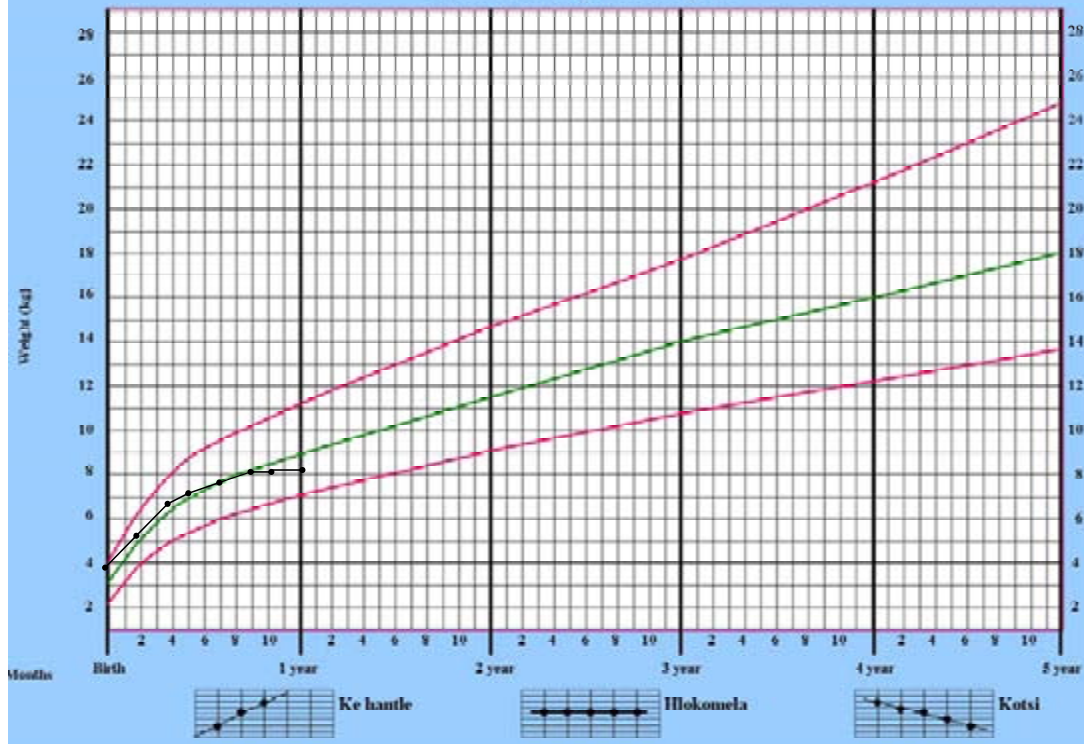
### Story 3

NGOANANA  
Karete e bontšang kholo ca ngoana



Story 4

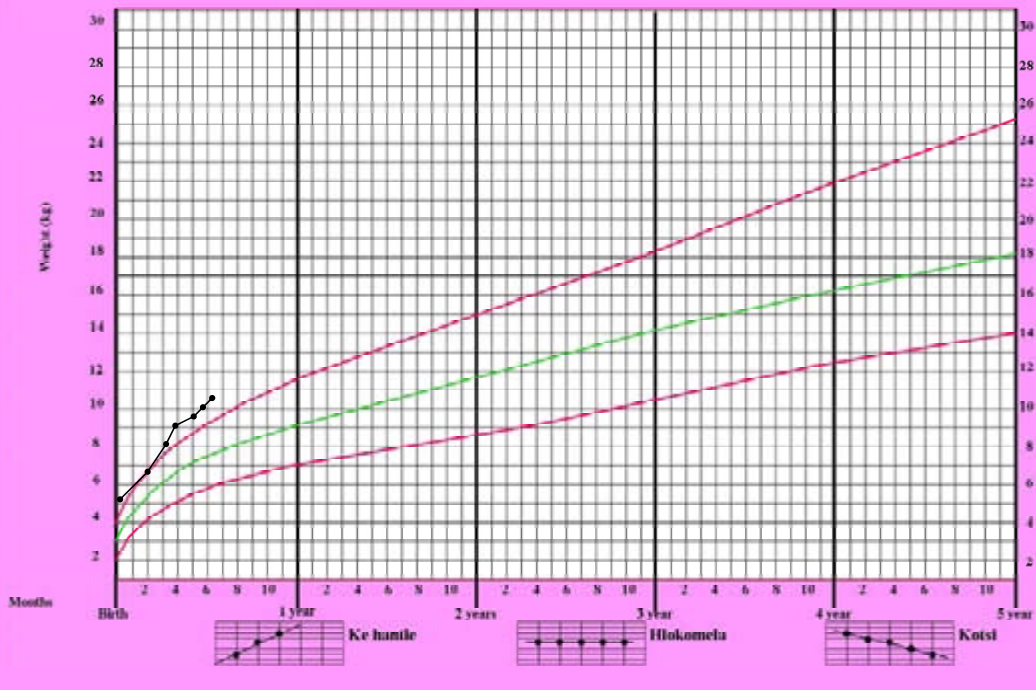
MOSHANYANA  
Karete e bontšang kholo ea ngoana



Story 5

NGOANANA  
Karete e bontšang kholo ea ngoana

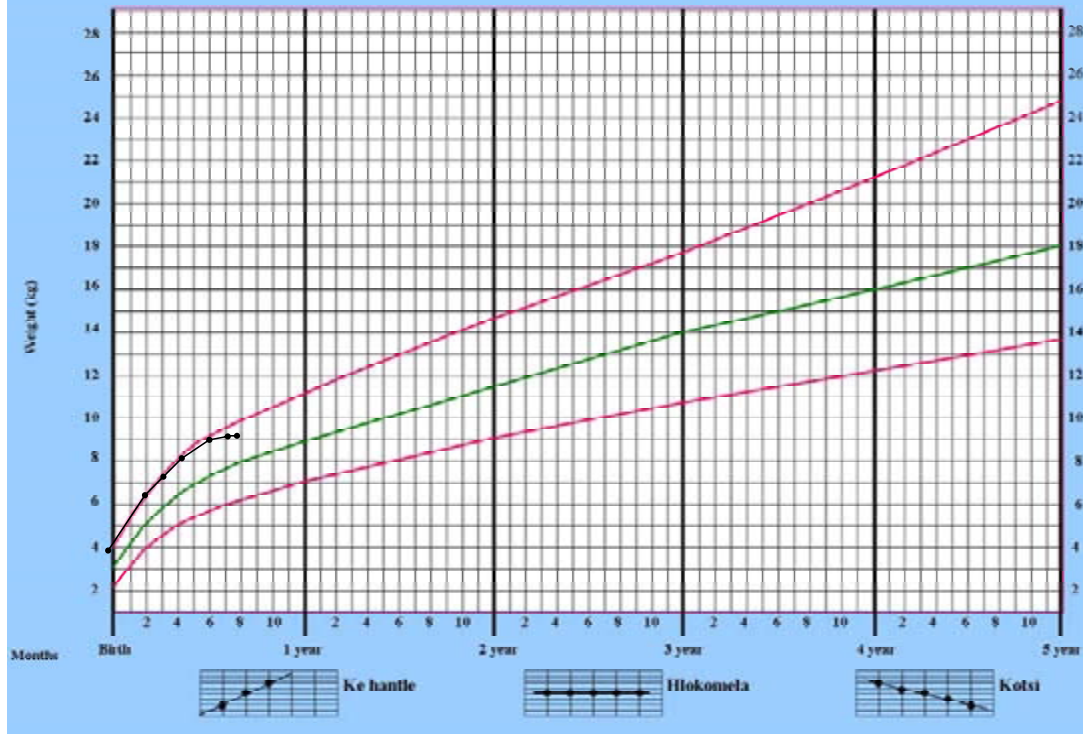
8/3



# Story 6

MOSHANYANA

Karete e bontšang khoho ea ngoana



**Notes**

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## Session 33: Responsive feeding

### Learning objectives

After completing this session, participants will be able to:

- Describe feeding practices and their effect on the child's intake.
  - Explain to families specific techniques to encourage young children to eat.
  - List the Key Message from this session.
- 

Health workers like you frequently give information to caregivers about feeding young children. We will now look at the recommendations and suggestions that you give and that you wrote down in an earlier session.

Often health workers talk about what foods to give to the child. Yet, when we listen to families, they say, 'my child does not eat enough' or 'my child is very difficult to feed'.

Imagine a young child first eating. What comes to mind?

When a child is learning to eat, he often eats slowly and is messy. He may be easily distracted. He may make a face, spit some food out, and play with the food. This is because the child is learning to eat.

A child needs to learn how to eat, to try new food tastes and textures. A child needs to learn to chew, move food around the mouth, and to swallow food. The child needs to learn how to get food effectively into the mouth, how to use a spoon, and how to drink from a cup.

Therefore, it is very important to talk to caregivers and offer suggestions about how to encourage the child to learn to eat the foods offered. This can help families to have happier meal times.

A child needs food, health, and care to grow and develop. Even when food and health care are limited, good caregiving can help make best use of these limited resources.

Care refers to the behaviours and practices of the caregivers and family that provide the food, health care, stimulation, and emotional support necessary for the child's healthy growth and development.

An important time to use good care practices is at mealtimes—when helping young children to eat.

### Responsive feeding practices

#### Responsive Feeding Practice 1: Assist children to eat, being sensitive to their cues or signals

Children need to learn to eat. Eating solid foods is a new skill and, at first, the child will eat slowly and may make a mess. It takes a lot of patience to teach children to eat. The child needs help and time to develop this new skill, to learn how to eat, to try new food tastes and textures.

At first, the young child may push food out of his mouth. This is because he does not have the skill of moving it to the back of his mouth to swallow it. Caregivers may think that this pushing out of food means the child does not want to eat. Talk with them about children needing time to learn to eat, just as they need time to learn to walk and to learn other skills.

A child's ability to pick up a piece of solid food, hold a spoon, or handle a cup increases with age and practice. Children less than 2 years of age need assistance with feeding. However, this assistance needs to adapt so that the child has opportunities to feed himself, as he is able.

A child may eat more if he is allowed to pick up foods with his newly learned finger skills from about 9–10 months of age. The child may be at least 15 months old before he can eat a sufficient amount of food by self-feeding. At this age, he is still learning to use utensils and will still need assistance.

Families tend to feed their young children in one of three different ways:

- One way is **high control of the feeding** by the caregiver, who decides when and how much the child eats. This may include force-feeding.
- Another feeding style: **children are left to feed themselves**. The caregiver believes that the child will eat if hungry. The caregiver may also believe that when the child stops eating, he has had enough to eat.
- The third style is **feeding in response to the child's cues or signals** using encouragement and praise.

The easiest way to see the differences in these three feeding styles is to demonstrate them.

Now we see demonstrations of three ways to feed a young child. After each demonstration, we will discuss what it shows.

#### **Demonstration 1: Controlled feeding**

The 'young child' is sitting next to the caregiver (or on the caregiver's knees). The caregiver prevents the child from putting his hands near the bowl or the food.

The caregiver spoons food into the child's mouth.

If the child struggles or turns away, he is brought back to the feeding position.

Child may be slapped or forced if he does not eat.

The caregiver decides when the child has eaten enough and takes the bowl away.

Now we see another way of feeding a young child.

#### **Demonstration 2: Leave to themselves**

The 'young child' is on the floor, sitting on a mat.

Caregiver puts a bowl of food beside the child with a spoon in it.

Caregiver turns away and continues with other activities (nothing too distracting for those watching).

Caregiver does not make eye contact with the child or help very much with feeding.

Child pushes food around in the bowl, looks to caregiver for help, eats a little, cannot manage a spoon well, tries with his hands but drops the food, gives up, and moves away.

Caregiver says, 'Oh, you aren't hungry', and takes the bowl away.

Now we see a third way of feeding a young child.

### **Demonstration 3: Responsive feeding**

Caregiver washes the child's hands and her own hands and then sits level with child. Caregiver keeps eye contact and smiles at child. Using a small spoon and an individual bowl, small amounts of food are put to the child's lips and child opens his mouth and takes it a few times.

Caregiver praises child and makes pleasant comments—'Aren't you a good boy? Here is lovely dinner.'—while feeding slowly.

Child stops taking food by shutting mouth or turning away. Caregiver tries once—'Another spoonful of lovely dinner?' Child refuses and caregiver stops feeding.

Caregiver offers a piece of food that child can hold—bread crust, biscuit, or something similar. 'Would you like to feed yourself?' Child takes it, smiles, and sucks or munches it.

Caregiver encourages 'You want to feed yourself, do you?'

After a minute, the caregiver offers a bit more from the bowl. Child starts taking spoonfuls again.

### Responsive Feeding Practice 2: Feed slowly and patiently, encourage but do not force

We could encourage many good responsive feeding practices here. When you are talking with caregivers, notice what practices they are doing that you can praise.

#### **RESPONSIVE FEEDING TECHNIQUES**

- Respond positively to the child with smiles, eye contact, and encouraging words.
- Feed the child slowly and patiently with good humour.
- Try different food combinations, tastes, and textures to encourage eating.
- Wait when the child stops eating and then offer again.
- Give finger foods that the child can feed him/herself.
- Minimise distractions if the child loses interest easily.
- Stay with the child through the meal and be attentive.

### Responsive Feeding Practice 3: Talk to children during feeding and make eye-to-eye contact

- Feeding times are periods of learning and love. Children may eat better when feeding times are happy.
- Feed when the child is alert and happy. If the child is sleepy or over-hungry and upset, he may not eat well.
- Regular mealtimes and the focus on eating without distractions may also help a child to learn to eat.
- When you talk with a caregiver, ask who feeds the child.
- Children are more likely to eat well if they like the person who is feeding them.
- Give positive attention for eating, not just attention when eating poorly.
- Older siblings may help with feeding but may still need adult supervision to ensure the young child is actively encouraged to eat and that the sibling does not take his food.

**Slide 33/1. Feeding situation.**



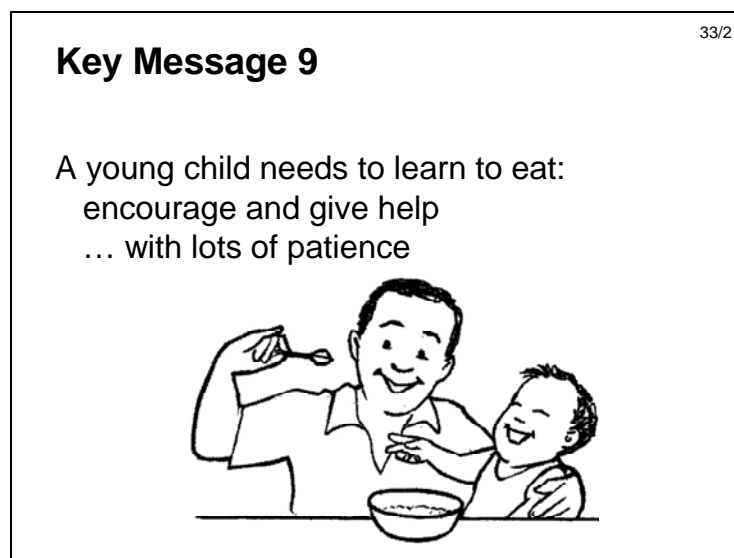
The overall feeding environment may also affect food intake. This includes:

- Sitting with the family or other children at mealtimes so the child sees them eating.
- Sitting with others eating to provide an opportunity to offer extra food to the young child.
- Using a separate bowl for the child so the caregiver can see the amount eaten.
- Talking with the child.
- Encouraging all the family to help with responsive feeding practices.

In this session, we saw three responsive feeding practices to encourage:

- Assisting children to eat, being sensitive to their cues or signals.
- Feeding slowly and patiently, encouraging but not forcing.
- Talking to children during feeding, and maintaining eye-to-eye contact.

**Slide 33/2. Key Message 9: Responsive feeding.**







## Session 34: Practical Session 4—Gathering information on complementary feeding practices

### Learning objectives

After completing this session, participants will be able to:

- Demonstrate how to gather information about complementary feeding using counselling skills and the FOOD INTAKE JOB AID, 6–24 MONTHS.
  - Provide information about complementary feeding and continuing breastfeeding to a mother of a child 6–24 months old.
- 

During the practical session, you will work in small groups of three or four and take turns talking with a mother while the others in your group observe.

You do not need to bring many items with you. Carrying many things can be a barrier between you and the mother you are talking with. Take with you:

- The FOOD INTAKE REFERENCE TOOL, 6–24 MONTHS.
- Pencil.
- Two copies of the COUNSELLING SKILLS CHECKLIST.
- Two copies of the FOOD INTAKE JOB AID, 6–24 MONTHS, and the pictures of thick and thin consistency.
- Common bowl used to feed a young child—one per group of participants.
  
- Each group will have one trainer.
- You will talk with mothers of children 6–24 months.
- One participant will talk with the mother, filling in the FOOD INTAKE JOB AID, 6–24 MONTHS, at the same time.
- The others in the group will observe and fill in the counselling checklist.
- Do not offer suggestions for treatment of an ill child.

### When talking with a mother...

Introduce yourself to the mother and ask permission to talk with her. Introduce the others in your group and explain you are interested in learning about feeding young children in general. You may wish to say you are in a course. Try to find a chair or stool to sit on, so you are at the same level as the mother.

Practise as many of the counselling skills as possible as you gather information from the mother using the FOOD INTAKE JOB AID, 6–24 MONTHS. Listen to what the mother is saying and try not to ask a question if you have already been told the information.

Fill out the FOOD INTAKE JOB AID, 6–24 MONTHS, as you listen and learn from the mother.

Use the information you have gathered and then:

- Try to praise two things that are going well.
- Offer the mother two or three pieces of relevant information.
- Offer two or three suggestions that are useful at this time.

Be careful not to give a lot of advice. Answer any questions the mother may ask as best as you can. Ask your trainer for assistance if necessary.

### **When observing...**

Explain that the participants who are observing can mark a ✓ on the COUNSELLING SKILLS CHECKLIST for every skill that they observe their partner practising. Remember to observe what the 'counsellor' is doing rather than thinking about what you would say if you were talking to the mother. The observers do not ask the mother any questions.

### **When an interview is complete...**

When you have finished talking with a mother, thank her and move away. Briefly discuss with the group and your trainer what you did and what you learnt, and clarify any questions you may have about conducting the exercise.

Discuss what practices you praised, what feeding problems you noticed, information and suggestions that you offered, and counselling skills used.

Find another mother and repeat the exercise with another participant doing the counselling.

Notice other feeding practices, such as:

- If children eat any food or have any drinks while waiting.
- Whether children are given a bottle or pacifier (dummy) while waiting.
- General interactions between mothers and children.
- Any posters or other information on feeding in the area.

## Notes

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## Session 35: Checking understanding and arranging follow-up

### Learning objectives

After completing this session, participants will be able to:

- Demonstrate how to ensure that a mother understands information provided by using checking questions.
- Arrange referral or follow-up of a child.

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In this session, you will learn two further skills to help support mothers:

- Checking understanding.
- Arranging follow-up.

### Checking understanding

We have already practised the counselling skills of 'listening and learning' and 'building confidence and giving support'. However, you need to discuss the suggestions you make with a mother so she can decide on a course of action. Your suggestion does not automatically become what a mother will do.

Often you need to check that a mother understands a practice or action she plans to carry out. For example, if you have talked about 'feeding frequently', you may need to check the understanding of the term 'frequently'.

It is not enough to ask a mother if she understands, because she may not realise that she understood incorrectly.

Ask open questions to find out if further explanation is needed. Avoid asking closed questions, because they suggest the answer and can be answered with a simple 'Yes' or 'No'. They do not tell you if a mother really understands.

Checking understanding also helps to summarise what you have talked about.

We will now see a demonstration of the need for using the skill of checking understanding. The demonstration involves a mother and health worker coming to the end of a discussion about feeding a 12-month-old baby.

#### Demonstration: Checking understanding

*Health worker:* 'Now, (name), have you understood everything that I've told you?'

*Mother:* 'Yes, ma'am.'

*Health worker:* 'You don't have any questions?'

*Mother:* 'No, ma'am.'

#### Comment: What did you observe?

**This mother would need to be very determined to say that she had questions for this health worker. Let us hear this again with the health worker using good checking questions.**

<i>Health worker:</i>	'Now, (name), we talked about many things today, so let's check to make sure everything is clear. What foods do you think you will give (name) tomorrow?'
<i>Mother:</i>	'I will make his porridge thick.'
<i>Health worker:</i>	'Thick porridge helps him to grow. Are there any other foods you could give, maybe from what the family is eating?'
<i>Mother:</i>	'Oh yes. I could mash some of the rice and lentils we are having, and I could give him some fruit to help his body to use the iron in the food.'
<i>Health worker:</i>	'Those are good foods to give your child to help him to grow. How many times a day will you give food to (name)?'
<i>Mother:</i>	'I will give him something to eat five times a day. I will give him thick porridge in the morning and evening, and in the middle of the day, I will give him the food we are having. I will give him some fruit or bread in between.'
<i>Health worker:</i>	'You have chosen well. Children who are 1 year old need to eat often. Would you come back to see me in 2 weeks to see how the feeding is going?'
<i>Mother:</i>	'Yes, OK.'
<b>Comment:</b>	<p><b>What did you observe this time?</b></p> <p><b>This time the health worker checked the mother's understanding and found that the mother knew what to do. She also asked the mother to come back for follow-up.</b></p> <p><b>If you get an unclear response, ask another checking question.</b></p> <p><b>Praise the mother for correct understanding, or clarify any information as necessary.</b></p>

### Arrange follow-up or referral

All children should receive visits to check their general health and feeding. If a child has a difficulty that you are unable to help with, you may need to refer him for more specialised care.

Follow-up is especially important if there has been any difficulty with feeding. Ask the mother to visit the health facility in 5 days for follow-up.

This follow-up includes checking what foods are used and how they are given, checking how breastfeeding is going, and checking the child's weight, health, general development, and care.

The follow-up visits also give an opportunity to praise and reinforce practices, thus building the mother's confidence; to offer relevant information; and to discuss suggestions as needed.

It is especially important for children with special difficulties (for example, children whose mothers are living with HIV) to receive regular follow-up from health workers. These children are at special risk. In addition, it is important to check how the mother is coping with her own health and difficulties.



## Session 36: Food demonstration

### Learning objectives

After completing this, session participants will be able to:

- Prepare a plate of food suitable for a young child.
- Explain why they have chosen these foods.
- Conduct a food demonstration with a mother.

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### Helping a mother learn to prepare a suitable meal

To teach a new skill or behaviour, you could:

- **Tell** the mother how to do it—this is good, but the mother might not understand all you say, or remember it.
- Ask the mother to **watch** while you talk and prepare the food—this is better, because the mother is seeing and hearing together.
- Help the mother to actually **prepare the food herself**—this is the BEST method, because the mother is doing the activity, so will understand more.

How you assist the mother to learn is important. Your counselling can also be used when helping a mother to learn a new skill. You can use your skills to:

- Use open questions to find out if the mother understands.
- Avoid words which sound judgemental or critical.
- Praise the mother.
- Explain things in a simple and suitable way to help her understand.

Now we will see a demonstration of helping a mother to learn in a supportive way. Listen for supportive ways of giving information.

- Likelehi talked to the health worker a few days ago about her 10-month-old baby. Makalo grew well for the first 6 months, but his weight gain has slowed down since then. The health worker gathered information by observing, listening, and learning.
- The health worker discussed Makalo's feeding and praised good practices. The health worker gave some information on two Key Messages and offered some suggestions on putting two new practices into place—to offer food frequently and to offer a larger amount each time.
- Today, the health worker has called on the home of Likelehi to help her learn more about foods and amounts to offer Makalo. The health worker asked Likelehi to keep some of the food from the family meal.

### Demonstration: Supportive teaching

*Health worker:* 'Good morning, Me Likelehi. How are you and Makalo today?'

*Mother:* 'We are well, thank you.'

*Health worker:* 'A few days ago, we talked about feeding Makalo, and you decided you would try to offer Makalo some food more often. How is that going?'

*Mother:* 'It is good. One time he had about half of a banana. Another time he had a piece of bread with some butter on it.'

*Health worker:* 'Those sound like good snacks. Now we want to talk about how much food to give for his main meal.'

*Mother:* 'Yes, I'm not sure how much to give.'



<i>Health worker:</i>	'It can be hard. What sort of bowl or cup do you feed him from?'
<i>Mother:</i>	'We usually use this bowl.' ( <i>Shows a bowl about 250 ml in size</i> <sup>10</sup> .)
<i>Health worker:</i>	'How full do you fill the bowl for his meal?'
<i>Mother:</i>	'Oh, about a third.'
<i>Health worker:</i>	'Makalo is growing very fast at this age, so he needs increasing amounts of food.'
<i>Mother:</i>	'What foods should I use?'
<i>Health worker:</i>	'You have some of the food here from the family today. Let us see.' ( <i>Uncovers food.</i> ) 'First we need to wash our hands.'
<i>Mother:</i>	'Yes, I have some water here.' ( <i>Washes hands with soap and dries them on clean cloth.</i> )
<i>Health worker:</i>	'Now, what could you start with for the meal?'
<i>Mother:</i>	'I guess we would start with some rice.' ( <i>Puts in two large spoonfuls.</i> )
<i>Health worker:</i>	'Yes, the rice would almost fill half of the bowl.' 'Animal-source foods are good for children. Is there some you could add to the bowl?'
<i>Mother:</i>	'I kept a few pieces of fish from our meal.' ( <i>Puts in one large spoonful.</i> )
<i>Health worker:</i>	'Fish is a good food for Makalo. A little animal-source food each day helps him to grow well.'
<i>Mother:</i>	'Does he need some vegetables, too?'
<i>Health worker:</i>	'Yes, dark-green or yellow vegetables help Makalo to have healthy eyes and fewer infections. What vegetables could you add?'
<i>Mother:</i>	'Some spinach?' ( <i>Puts in some.</i> )
<i>Health worker:</i>	'Spinach would be very nutritious. Some would fill half the bowl.'
<i>Mother:</i>	'Oh, that isn't hard to do. I could do that each day. Two spoons of rice, a spoon of an animal-source food, and some dark-green or yellow vegetable so the bowl is half full.'
<i>Health worker:</i>	'Yes, you are able to do it. Now, what about his morning meal?'
<i>Mother:</i>	'I can give some porridge, with milk and a little sugar.'
<i>Health worker:</i>	'That's right. How much will you put in the bowl?'
<i>Mother:</i>	'Until it is at least half full.'
<i>Health worker:</i>	'Yes. So, we've talked about his morning meal, and the main meal with the family. Makalo needs three to four meals each day. So what else could you give?'
<i>Mother:</i>	'Well, he could have some banana or some bread like I said before.'
<i>Health worker:</i>	'Those are healthy foods to give between meals. Makalo needs at least half a bowl of food three to four times a day as well.'
<i>Mother:</i>	'Oh, I don't know what else to give him.'
<i>Health worker:</i>	'Your family has a meal in the middle of the day. What do you eat in the evening?'
<i>Mother:</i>	'Usually there is a pot of soup with some beans and vegetables in it. Could I give him that?'

<sup>10</sup> If a different size cup or bowl is used, adjust the text accordingly. If a smaller cup is used, it will need to be a full cup. If a larger cup is used, it may only need to be less than half full.

<i>Health worker:</i>	‘Thick foods will help him to grow better than thin foods like soup. Could you take out a few spoons of the beans and vegetables and mash them for Makalo? And maybe soak some bread in the soup?’
<i>Mother:</i>	‘Yes, I could do that easily enough.’
<i>Health worker:</i>	‘So, how much will you put in Makalo’s bowl for each meal?’
<i>Mother:</i>	‘I will fill it half full.’
<i>Health worker:</i>	‘Very good. And how often each day will you give him some food?’
<i>Mother:</i>	‘I will give half a bowl of food three to four times a day. If he is hungry, I will give some extra food between meals.’
<i>Health worker:</i>	‘Exactly. You know how to feed Makalo well. Will you bring Makalo back to the health centre in 2 weeks so we can look at his weight?’
<i>Mother:</i>	‘Yes, I will. With all this food, I know he will grow very well.’

- The health worker let the mother prepare the food.
- The health worker explained points carefully.
- The health worker used the Key Messages so the information was familiar.
- The health worker used counselling skills:
  - Listening and learning skills: open questions, empathy, and no judging words.
  - Building confidence and giving support skills: praise, she did not criticise mistakes, and used simple language.
- The health worker offered information and suggestions rather than giving commands.
- The health worker checked the mother’s understanding and arranged follow-up.

Remember to use the counselling skills when you teach a mother. This supportive teaching can help to build her confidence as well as make it easier for her to learn.

Whenever possible, let the mother prepare the food herself, with the support of the health worker, until she is confident and competent. Watching a health worker prepare foods is not enough, particularly if there is a problem with the child’s weight gain or feeding.

The health worker in our demonstration could also stay and observe how the mother feeds the child.

The health worker would be looking for techniques such as:

- Assisting the child to eat, being sensitive to his cues or signals.
- Feeding slowly and patiently, encouraging but not forcing.
- Talking to the child during feeding, and maintaining eye-to-eye contact.

### **Preparing a plate of food**

- Each group will now prepare a bowl or plate of food suitable for the age of child they are assigned: 6½ months old, 8 months old, 10 months old, 15 months old.
- Give your child a name and describe the family setting (for example, that they live in the town, or have many children in the family).
- A selection of foods is provided. Each group will choose suitable foods, and decide on the amount and consistency to make up the meal. You are a mother with a large family to feed—do not take more food than you need for the one child. Also, keep in mind the kinds of foods mothers in your community give to young children.
- You are a busy mother. Do this task quickly.
- Be prepared afterward to say why your group chose those particular foods and if there are any additional foods you would include that are not available here.

- Decide on one or two Key Messages you would give if you were preparing this food in a demonstration for mothers to explain the importance of adequate complementary feeding.
- Choose only one or two Key Messages that are relevant to the child for whom you are preparing the meal.

<b>QUANTITIES OF FOOD TO OFFER A YOUNG CHILD FOR A MEAL</b>			
<b>Age</b>	<b>Texture</b>	<b>Frequency</b>	<b>Amount of food an average child will usually eat at each meal<sup>11</sup></b>
6–8 months	Start with thick porridge, well-mashed foods. Continue with mashed family foods.	2–3 meals per day plus frequent breastfeeds. Depending on the child's appetite, 1–2 snacks may be offered.	Start with 2–3 tablespoonfuls per feed, increasing gradually to half of a 250-ml cup.
9–11 months	Finely chopped or mashed foods, and foods that baby can pick up.	3–4 meals plus breastfeeds. Depending on the child's appetite, 1–2 snacks may be offered.	Half of a 250-ml cup/bowl.
12–23 months	Family foods, chopped or mashed if necessary.	3–4 meals plus breastfeeds. Depending on the child's appetite, 1–2 snacks may be offered.	Three-quarters to one 250-ml cup/bowl.
If baby is not breastfed, give in addition: 1–2 cups of milk per day and 1–2 extra meals per day.			

<sup>11</sup> Adapt this chart to use a suitable local cup/bowl to show the amount. The amounts assume an energy density of 0.8 to 1 Kcal/g.

<b>Exercise: Preparing a young child's meal</b>		
<b>Group:</b>		
<b>Task</b>	<b>Achieved</b>	<b>Comments</b>
Mixture of foods:		
Staple:		
Animal-source food:		
Bean/pulse <i>plus</i> vitamin C fruit or vegetable		
Dark-green vegetable or yellow-coloured fruit or vegetable		
Consistency		
Amount		
Prepared in a clean and safe manner		

**Key Messages:**

1.

2.

<p style="text-align: center;"><b>Planning guide for a group demonstration of the preparation of young children's food</b></p>
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**Gather the equipment and materials**

- Cooked food for the preparation.
- Plates and utensils for the preparation.
- Utensils for mothers and infants to taste the preparation.
- Table on which to prepare the food.
- Facilities for washing hands.

**Review objectives of the demonstration**

1. Teach mothers how to prepare simple and nutritious food for young children using local ingredients (to learn through doing).
2. Demonstrate to mothers the appropriate consistency (thickness) for these foods.
3. Demonstrate the taste and acceptability of the food preparations for mothers and young children.

**Decide the Key Messages**

- Select one to three Key Messages to say to mothers.
- Follow each message with a checking question (a question that cannot be answered with a simple 'Yes' or 'No').

For example:

1. Foods that are thick enough to stay in the spoon give more energy to the child.  
*Checking question:* What should the consistency of foods be for a small child?  
*(Answer:* Thick, so the food stays in the spoon.)
2. Animal-source foods are especially good for children, to help them grow strong and lively.  
*Checking question:* What animal-source food could you give to your child in the next 2 days?  
*(Answer:* Meats, fish, egg, milk, cheese; these are special foods for the child.)
3. A young child needs to learn to eat: encourage and give help...with a lot of patience.  
*Checking question:* How should you feed a child learning to eat?  
*(Answer:* With patience and encouragement.)

**Give the participatory demonstration**

- Thank the mothers for coming.
- Present the recipe that will be prepared.
- Hold up each of the ingredients. Mention any ingredients that can be easily substituted; for example, oil for butter, powdered milk or tinned milk (unsweetened) for fresh milk, or cooking water or boiled water if no milk is available.
- Invite at least two mothers to prepare the food. If possible, have enough ingredients to have two or three pairs of mothers participate in the preparation; each pair working with their own plate of ingredients and utensils.

- Talk the mothers through each step of the preparation, for example:
  - Washing hands.
  - Mashing a potato or \_\_\_\_\_ .
  - Adding the correct quantity of fish or egg, etc.
  - Adding the correct quantity of milk or water.
- Point out the consistency of the preparation as the mothers are making it, and demonstrate with a spoon when they have finished.
- Reinforce the use of local inexpensive and nutritious ingredients, especially using foods from the family pot.
- Ask the mothers if they would have difficulty in obtaining any of the ingredients (suggest alternatives). Ask the mothers if they could prepare the food in their household.

#### **Offer food preparations to taste**

- Invite the mothers who prepared the food to taste it in front of the rest and give their opinions (use clean spoons).
- Invite all the mothers to taste the preparation and to give it to their small children (who are at least 6 months old). Use a clean spoon for each child.
- Use this time to stress the Key Messages you decided to use when planning the demonstration.

#### **Ask checking questions**

- What are the foods used in this recipe? Wait for responses.
- Read out the list of foods again.
- Ask the mothers when they think they can prepare this food for their young child (for example, tomorrow).
- You may repeat the Key Messages and checking questions again.

#### **Conclude demonstration**

- Thank the mothers for coming and participating.
- Ask the mothers to share their new knowledge of preparing this food with a neighbour who has small children.
- Invite mothers to visit the health facility for nutrition counselling and growth checks.

## Recipes for food demonstration<sup>12,13</sup>

Fill in the foods and the amounts needed.

### Recipe 1

Family food for a 10-month-old child's main course  
(about half a cupful – a cup/bowl that holds 250 ml)

Staple: \_\_\_\_\_

Meat or fish or beans: \_\_\_\_\_

If using beans or egg instead of meat, include a source of vitamin C to help with iron absorption: \_\_\_\_\_

Dark-green or yellow vegetable: \_\_\_\_\_

Milk or hot boiled water or soup water if milk is not available: 1 tablespoon (large spoon)

- Wash hands and use clean surface, utensils, and plates.
- Take the cooked foods and mash them together.
- Add the oil or margarine and mix well.
- Check the consistency of the mashed food with a spoon—it should stay easily on the spoon without dripping off.
- Add the milk or water to the mashed food and mix well. Only add a small amount of milk or water to make the right consistency.

### Recipe 2

Family food for a 15-month-old child's main course (a full cup)

Staple: \_\_\_\_\_

Meat or fish or beans: \_\_\_\_\_

If using beans or egg instead of meat, include a source of vitamin C to help with iron absorption: \_\_\_\_\_

Dark-green or yellow vegetable: \_\_\_\_\_

Oil or margarine: 1 teaspoon (small spoon)

- Wash hands and use clean surface, plates, and utensils.
- Take the cooked foods and cut them into small pieces or slightly mash them together (depending on the child's age).
- Add the oil or margarine and mix well.

<sup>12</sup> The amounts indicated are recommended when the energy content of the meals is 0.8 to 1 Kcal/g. These amounts should be adjusted when the foods are diluted.

<sup>13</sup> If there is a need to increase the amount of food for each meal, instruct the participants to make the changes in their recipes.





## **Session 37: Feeding during illness and low-birthweight babies**

### **Learning objectives**

After completing this session, participants will be able to:

- Explain why children need to continue to eat during illness.
  - Describe appropriate feeding during illness and recovery.
  - Describe feeding of low-birthweight babies.
  - Estimate the volume of milk to offer to a low-birthweight baby.
  - Identify the Key Message from this session.
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Some of the children you see for feeding counselling may be ill or recovering from an illness.

Children who are ill may lose weight because they have little appetite or their families may believe that ill children cannot tolerate much food.

If a child is ill frequently, he or she may become malnourished and therefore at higher risk of more illness. Children recover more quickly from illness and lose less weight when they are helped to feed when they are ill.

Children who are fed well when healthy are less likely to falter in growth from an illness and more likely to recover faster. They are better protected.

Breastfed children are protected from many illnesses. Special care needs to be given to those who are not breastfed and who do not have this protection.

### **Importance of feeding during illness**

A child may eat less during illness because:

- The child does not feel hungry, is weak and lethargic.
- The child is vomiting or the child's mouth or throat is sore.
- The child has a respiratory infection, which makes eating and suckling more difficult.
- Caregivers withhold food, thinking that this is best during illness.
- There are no suitable foods available in the household.
- The child is hard to feed and the caregiver is not patient.
- Someone advises the mother to stop feeding or breastfeeding.

**Slide 37/1. Growth chart of Thabo, who is 12 months old.**



Thabo grew well for the first 5 months and then his growth started to falter. He was ill and lost weight. He recovered some weight but then became ill again and lost more. After each illness, he did not get back to his previous growth curve and is heading toward being malnourished.

During infections, the child needs more energy and nutrients to fight the infection. If they do not get extra food, their fat and muscle tissue are used as fuel. This is why they lose weight, look thin, and stop growing.

**Slide 37/2. Key Message 10: Feeding during and after illness.**

37/2

### Key Message 10

Encourage children to drink and eat during illness and provide extra food after illness to help them recover quickly

The illustration shows a woman sitting at a table, feeding a young child with a spoon. Another child is standing next to the table, looking on. The scene is set in a simple, clean environment, emphasizing the act of feeding and care during illness.

The goal in feeding a child during and after illness is to help him to return to the growth he had before he was ill.

## Appropriate feeding during illness and recovery

### Slide 37/3. Feeding the child who is ill.

37/3

### Feeding the child who is ill

- Encourage the child to drink and to eat – with lots of patience
- Feed small amounts frequently
- Give foods that the child likes
- Give a variety of nutrient-rich foods
- Continue to breastfeed – often ill children breastfeed more frequently

### Slide 37/4. Feeding during recovery.

37/4

### Feeding during recovery

- Give **extra** breastfeeds
- Feed an **extra** meal
- Give an **extra** amount
- Use **extra** rich foods
- Feed with **extra** patience and love

The child's appetite usually increases after the illness, so it is important to continue to give extra attention to feeding after the illness.

This is a good time for families to give extra food so that lost weight is quickly regained. This allows 'catch-up' growth.

Young children need extra food until they have regained all their lost weight and are growing at a healthy rate.

## Feeding of low-birthweight babies

The term 'low-birthweight' means a birthweight of less than 2,500 grams (up to and including 2,499 grams), regardless of gestational age. (Babies who weigh less than 1,500 grams are considered extremely low-birthweight.) This includes babies who are born *premature* (that is, who are born before 37 weeks of gestational age), and babies who are *small for gestational age*. Babies may be small for both these reasons.

In many countries, 15–20% of all babies are low-birthweight.

In this country, the percentage of all babies who are low-birthweight ranges from 6.2% in Leribe and Berea districts to 13.3% in Botha Bothe<sup>14</sup>.

Low-birthweight babies are at particular risk of infection, and they need breastmilk more than larger babies. Yet they are given artificial feeds more often than larger babies. Many low-birthweight babies can breastfeed without difficulty. Babies born at term, who are small-for-date, usually suckle effectively. They are often very hungry and need to breastfeed more often than larger babies, so that their growth can catch up.

Babies who are born preterm may have difficulty suckling effectively at first. But they can be fed on breastmilk by tube or cup, and helped to establish full breastfeeding later. Breastfeeding is easier for these babies than bottle feeding.

Mothers of low-birthweight babies need skilled help to express their milk and to cup feed.

It is important to start expressing on the first day, within 6 hours of delivery if possible. This helps to start breastmilk to flow, in the same way that suckling soon after delivery helps breastmilk to 'come in'.

If a mother can express just a few millilitres of colostrum, it is valuable for her baby.

### Slide 37/5. Feeding low-birthweight babies.

37/5

## Feeding low-birthweight babies

- 32 weeks gestation
  - able to start suckling from the breast
- 30-32 weeks gestation
  - can take feeds from a small cup or spoon
- Below 30 weeks gestation
  - usually need to receive feeds by tube in hospital

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<sup>14</sup> Lesotho National Nutrition Survey Report, November–December 2007.

- Babies of about 32 weeks gestational age or more are able to start suckling on the breast.
- Babies between about 30 and 32 weeks gestational age can take feeds from a small cup, or from a spoon.
- Babies less than 30 weeks usually need to receive their feeds by a tube in hospital.
- Let the mother put her baby to her breast as soon as he is well enough. He may only root for the nipple and lick it at first, or he may suckle a little. Continue giving expressed breastmilk by cup to make sure the baby gets all that he needs.
- When a low-birthweight baby starts to suckle effectively, he may pause during feeds quite often and for quite long periods. For example, he may take four or five sucks and then pause for up to 4 or 5 minutes.
- It is important not to take him off the breast too quickly. Leave him on the breast so that he can suckle again when he is ready. He can continue for up to an hour if necessary. Offer a cup feed after the breastfeed.
- Make sure that the baby suckles in a good position. Good attachment may make effective suckling possible at an earlier stage.

The best positions for a mother to hold her low-birthweight baby at the breast are:

- Across her body, holding him with the arm on the opposite side to the breast.
- The underarm position.

Low-birthweight babies need to be followed up regularly to make sure that they are getting all the breastmilk that they need.

Low-birthweight babies of mothers who are HIV positive and who have chosen-replacement feeding are at higher risk of complications and should also be followed regularly to make sure they are growing. Encourage mothers to feed the replacement milk to their babies by cup.

<b>AMOUNT OF MILK FOR LOW-BIRTHWEIGHT BABIES WHO CANNOT BREASTFEED</b>
<p><b>What milk to give:</b>            Choice 1: Expressed breastmilk, if possible, from the baby's mother.            Choice 2: Formula made up according to the instructions.</p> <p><b>Steps to take for babies who weigh less than 2.5 kg (low-birthweight):</b></p> <ol style="list-style-type: none"> <li>1. Start with 60 ml/kg body weight.</li> <li>2. Increase the total volume by 20 ml/kg per day, until the baby is taking a total of 200 ml/kg per day/night.</li> <li>3. Divide the total into 8 to 12 feeds over 24 hours, to feed every 2 to 3 hours.</li> <li>4. If the baby is extremely low-birthweight (weighs less than 1.5 kg), continue until the baby weighs 1.8 kg or more and is fully breastfeeding. If the baby is low-birthweight (weighs between 1.5 and 2.5 kg), continue until the baby weighs at least 1.8 kg or more, and is fully breastfeeding.</li> <li>5. Check the baby's 24-hour intake.</li> </ol> <p><b>Note: The size of individual feeds may vary.</b></p>

