



Infant and Young Child Feeding Curriculum

Ministry of Health & Social Welfare – Lesotho Government

2010

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Materials for the course

Necessary documents:

- *Trainer's Guide*.
- Copies of *Participants' Manual* for each participant.
- PowerPoint slides for Sessions 3 to 38.
- Copies of the infant-feeding counselling cards for each participant.
- Copies of the take-home flyers for each participant.

Equipment:

- LCD projector for presenting slides.
- Breast model (if not available, see 'How to make a breast model' on page 8).
- Doll.
- Chairs and a footstool for sitting demonstrations.
- A mat or blanket on the floor to demonstrate breastfeeding lying down.
- At least one table reserved for demonstrations.
- A small cup, which holds approximately 60 mls of water.
- A cloth (used in multiple sessions).
- Syringe, 20 ml, with the adaptor end of the barrel removed.
- Marker suitable for glass.
- Water for use in demonstrations.
- Bowl or plate that would be used when feeding a young child (sessions 29, 30, 33, and 35).

Equipment for specific demonstrations:

- Two empty see-through containers that will each hold 200 ml when filled to the top. These could be drinking glasses or plastic containers, such as soft-drink bottles, cut to the right size.
- Sharp scissors or knife to cut the soft-drink bottles, if needed.
- Measuring jug or other means to measure 200 ml.
- 400-ml made-up porridge from a suitable local staple. Make up to a thick consistency so that it stays easily in the spoon when the spoon is tilted. Divide the cooked porridge into two even portions.
- A large eating spoon (used in multiple sessions).
- Examples of suitable containers to collect expressed breastmilk, which would be available to ordinary mothers (for example, cups and jars).
- Samples of any breast pumps that are available in the area, from hospitals, or from shops. (If none are available or used, do not give this demonstration.)
- Collect containers, tins, and packets of all milks available locally, whether or not suitable for infants, including those provided by social service organisations and supplemental nutrition programs. Have one tin of commercial infant formula. Find out which milks are full-fat, semi-skimmed, or skimmed.
- Collect a variety of miscellaneous products, e.g., fruit juices, sugary drinks, and tea.
- Collect easily available see-through small containers, such as jars and glasses.
- Gather some examples of promotional material from formula manufacturers.
- Examples of locally-available processed complementary foods (empty packets are suitable).
- A biscuit or piece of bread or other finger food.
- A variety of common foods (cooked if needed) that young children would eat, enough to make a child-size bowlful for each group, from the kitchen at the course facilities or elsewhere. Include some inappropriate food, if possible. Do not divide the food for the groups. Cover the food until you are ready to use it.
- One plate, knife, fork, and eating spoon for each group.

- A local measure that holds 250 ml marked at $\frac{1}{2}$ and $\frac{3}{4}$ full. Do not distribute this until after the plate of food is prepared by the group.
- You will need a small amount of food and a set of equipment similar to the plate of food exercise above for the demonstration. Adapt the text to suit the food you have available.
- Facilities for washing hands before and after preparing food. Waste container and materials for cleaning up afterwards.

Stationary

- Blank flip chart.
- Markers.
- Tape or other items for affixing papers on walls or chalkboards.
- Six A4 sheets of paper.
- Small blank cards (A5) in four colours (20 of each colour).
- Seven note cards with one of the following words written on each card: happy, sad, excited, angry, worried, scared, bored/not interested.
- Enough scrap paper for each participant to write their recommendations on. These will be used again in Session 34.

Copies:

- Make one copy of the *National IYCF Policy* for each participant.
- Copies of the BREASTFEEDING OBSERVATION JOB AID (for sessions 4, 6, and 7).
- Copies of all the role plays from Session 5.
- Copies of PRACTICAL DISCUSSION CHECKLIST available for each trainer (for session 6).
- Copies of Counselling Skills Checklist (for sessions 6, 9, 19, and 34).
- Copies of HOW TO HELP A MOTHER TO POSITION HER BABY for each participant (for Session 7).
- One copy of the Lesotho growth charts for boys and girls for each participant.
- Copies of the growth charts with standard curves for all participants.
- Copies of the Session 9 Demonstrations 1 to 4.
- Copies of the Guide for Evaluating Infant Feeding for each participant.
- Four copies of Counselling Stories 1 to 4 (for Session 19).
- Copies of Five Keys to Safer Food for each participant.
- Copies of the handout Assess Your Practices (located at the end of this curriculum).
- Copies of the handout What Is in the Bowl? (Session 29).
- Cut-out slips of paper with the scenarios listed at the end of Session 31.
- Copies of the Food Intake Job Aid 6–24 Months for each participant (sessions 32 and 34).
- Copies of the Instructions to Complete Food Intake Job Aid, 6–24 Months for each participant.
- One set of stories for each group for Food Intake Practice. Cut as shown from Session 32. Keep the growth chart with the relevant story.
- Copies for each group of Exercise: Prepare a Young Child's Meal (Session 36).

Introduction to the course

Why this course is needed

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) jointly developed the Global Strategy for Infant and Young Child Feeding (IYCF) to revitalize the world's attention to the impact that feeding practices have on the nutritional status, growth, development, and health, and thus the very survival of infants and young children (WHO and UNICEF, 2002). The Global Strategy is intended as a guide for action; it is based on accumulated evidence of the significance of the early months and years of life on growth and development.

The Government of Lesotho has adopted the Global Strategy for IYCF and recognizes the impact that feeding practices have on the nutritional status, growth, development, health, and survival of infants and young children. The IYCF guidelines recommend the protection, promotion, and support for exclusive breastfeeding for 6 months. For infants older than 6 months, the guidelines call for provision of safe and appropriate complementary foods with continued breastfeeding for up to 2 years of age or beyond. However, many children are not fed in the recommended way. Many mothers who initiate breastfeeding satisfactorily start complementary feeds or stop breastfeeding within a few weeks of delivery. In addition, many children, even those who have grown well for the first 6 months of life, do not receive adequate complementary foods, which puts them at risk of malnutrition.

Poor nutritional status is currently one of the most important health and welfare problems in Lesotho. At the national level, nearly 42% of children younger than 5 years are stunted¹. Nearly half of children are receiving liquids and solid foods prematurely at 2 months. Conversely, 30 percent of children aged 6 to 7 months are still consuming a liquid diet at an age when solid foods should form an important part of their diet. Results from the 2004 National Demographic and Health Survey (DHS) indicate that 23.2% of adults aged 15 to 49 in Lesotho are infected with HIV. HIV prevalence among pregnant women is 27%. Suboptimal IYCF practices increase the risk of mother-to-child HIV transmission.

It has often been difficult for health workers to discuss with families how best to feed their young children due to the confusing, and often conflicting, information available. Inadequate knowledge about how to breastfeed, the appropriate complementary foods to give, and good feeding practices are often a greater determinant of malnutrition than the availability of food. Hence, there is an urgent need to train all those involved in infant-feeding counselling in the skills needed to support and protect breastfeeding and good complementary feeding practices.

Messages about infant feeding have become confused over recent years with the HIV pandemic. In Lesotho, the Ministry of Health and Social Welfare (MOHSW) is finalising the *National Infant and Young Child Feeding Policy*, indicating that HIV-positive women should be counselled to make a fully informed decision about how best to feed their infants, and supported to carry out the method of their choice. This policy also emphasises the need to protect, promote, and support breastfeeding. There is an urgent need to train health workers to counsel women about infant feeding, according to this policy.

This 5-day *Infant and Young Child Feeding Curriculum for Health Workers* is based on WHO and UNICEF's *Infant and Young Child Feeding Counselling: An Integrated Course*. Given the urgency of training large numbers of health workers and counsellors, this integrated course has been adapted to respond to the specific needs in Lesotho by training those who care for mothers and young children in the basics of good infant and young child feeding.

¹ National Nutrition Survey, 2007.

Counselling is an extremely important part of this course, and the course will focus on practicing using job aids to improve counselling skills.

Course objectives

After completing this course, participants will be able to counsel and support mothers to carry out nationally-recommended feeding practices for their infants and young children from birth up to 24 months of age. In addition, participants will be able to counsel and support HIV-infected mothers to choose and carry out an appropriate feeding method for the first 2 years of life. Each session of this course has a set of learning objectives. Be sure that you are clear about what these are when you are preparing to give a session.

Target audience

This course is aimed at the following groups of people:

- Dieticians and nutritionists.
- Doctors and nurses.
- Counsellors.
- Other health personnel.
- Health educators.

Course participants are not expected to have any prior knowledge of infant feeding.

Using the *Trainer's Guide*

Preparing to use slides

Many sessions in the curriculum include a set of slides that will help you to achieve the session objectives. You can see a photo of each slide in this guide. The slides are accompanied by text that explains the slide's meaning within the session. It is important as a trainer that you review these slides carefully when preparing for your session. In addition, you will need to make sure that you have a projector available for use during this training in order to project the slides.

Using the *Trainer's notes*

At the end of each session you will find a section called *Trainer's notes*. This is a reference section available for you in order to provide more detailed technical information. These sections are just for the trainer—it is not necessary to read these to the participants. It is important for you to also review this information when preparing for a session. It will help you to answer your participants' questions.

Preparing to give a demonstration

Some sessions include a number of short demonstrations of counselling techniques and other skills. You should practice these beforehand in order for them to be effective and to demonstrate the relevant points to the participants.

Demonstration guidelines

- **Study the instructions and collect the equipment:** Before you give the demonstration, read through the instructions carefully, so that you are familiar with them and you do not forget any important steps. This is necessary even if you have already seen someone else give the demonstration. Make sure that you have the equipment that you need.
- **Prepare your assistant:** You may need someone to help you to give the demonstration; for example, someone to pretend to be a mother. It is usually a good idea to ask a participant to help you. This can be a good learning experience for her. It increases her involvement, and helps her to learn about teaching methods. Ask for help the day before a demonstration, so that helpers have time to prepare themselves and discuss what you want them to do. If the participant will be taking part in one of the role plays with a written scenario, give her the words she will read the day before so that she can practice them.
- **If appropriate, do the demonstrations with another trainer:** If you feel that participants are not ready to demonstrate the counselling skills, do the demonstrations yourself with another trainer. This helps participants to understand what playing the part is about, and they can see that making mistakes does not matter, so they may feel more confident to try themselves next time.

Role plays

This training will use role plays to provide participants with an opportunity to practice and perfect the skills learned during this workshop before trying them in a real situation. Whenever role plays are used, there will first be a role play conducted in front of the entire group of participants. Participants will have a chance to observe, ask questions, and provide feedback. Then participants will break into small groups of six people. The same groups will be used throughout the training, and group members will take turns in different roles to ensure that each group member has a chance to play the role of the health worker. There will be enough learning activities for each member of the six-to-eight-person group to play the role of the health worker at least once. In each small group the role play can be carried out by two to four people who play the roles of the health worker, the mother, the grandmother, and the father. Others can observe the role play and provide feedback. If there is time, those who observed can then enact another role play while the rest serve as observers. If there is not time, they can serve as the main players in the next session.

Role-play guidelines

When setting up a role play for presentation by trainees, the following guidelines are important:

- Two or more people are asked to take on the role of certain characters and then act out a scene focusing on a predetermined situation. Details will be given about a situation, asking the role players to act it out and create an ending.
- Suggest that male participants play female roles and female participants play male roles, so they have a chance to place themselves in situations encountered by the opposite sex.
- Visit small groups creating a role play to make sure that they are developing a scene that is no longer than 5 to 7 minutes in length and to ensure that all members of the small group are involved in some way.
- Make sure they do not spend all the time on the script. They need time to act it out as well.
- Create sufficient space for the role-play performance.

- If the role play goes on too long or seems to get 'stuck,' invite the players to stop so that everyone can discuss the situation.
- Allow the other participants to offer their observations and feedback after the small group has performed. Role plays are a chance for participants to improve their skills.

Using the Infant and Young Child Feeding Counselling Cards and take-home flyers

This curriculum also demonstrates the use of the National Infant and Young Child Feeding Counselling Cards and take-home flyers. The counselling cards have been developed for use by health workers in order to assist in counselling mothers.

The counselling cards begin with a flow chart, which guides the counsellor on the steps to take when counselling a mother. Using this flow chart, a counsellor decides which cards are most appropriate to use with the mother. Each card contains two sides: a picture and text. The text side indicates the card number. The counsellor should show the mother the picture and ask her to describe what she sees. Make sure that the mother covers the points written on the text side of the card. Fill her in on the points that she does not cover.

In each session that covers the use of these cards, their photos are included on slides. This helps you to guide the participants in their use and helps them to become more familiar with them.

It is very important that trainers understand clearly how to use these cards themselves, as they will be expected to teach the participants how to use them.

How to make a model breast

Some sessions include demonstrations that involve the use of breasts. If a model breast is not available at your facility, here are instructions on how to make one:

- Use a pair of near skin-coloured socks or stockings, or an old sweater or T-shirt.
- Make the cloth into a round bag shape, and stuff it with other cloth or foam rubber to make it breast shaped.
- Stitch a 'purse string' around a circle in the middle of the breast to make a nipple.
- Stuff the nipple with foam or cotton.
- Colour the areola with a felt pen. You can also push the nipple in, to demonstrate an 'inverted' nipple.
- If you wish to show the inside structure of a breast, with the larger ducts, make the breast with two layers, for example with two socks.
- Sew the nipple in the outer layer, and draw the large ducts and ducts on the inside layer, beneath the nipple.
- You can remove the outer layer with the nipple to reveal the inside structure.

Session 1: Introduction to infant and young child feeding

Learning objectives

After completing this session participants will be able to:

- Describe the *National IYCF Policy*.
- Explain how the *National IYCF Policy* applies to their work.
- State the current recommendations for feeding children from 0–24 months of age.
- Define exclusive breastfeeding.
- Define complementary feeding.

Materials and preparation

- Make one copy of the *National IYCF Policy* for each participant.
- Post two A4 sheets of paper on opposite sides of the room. Write 'Agree' on one sheet and 'Disagree' on the other.

Suggested time: 30 minutes

Session guide

Ask participants to stand in the middle of the room. Explain that you will read a statement and if they agree they should move to the side of the room under the 'agree' sign. If they disagree they should move to the side under the 'disagree' sign. Encourage everyone to move to one side. Even if they do not feel strongly they can go to the side that is closest to how they feel.

Read the following statements one at a time. After participants have moved ask a few from each side to explain why they are standing on that side.

- Breastmilk is best for babies after they are born, but after a few months, babies start to be hungry and need to eat other foods.
- Cow's milk is a good substitute for breastmilk when a woman is away from her baby or does not have enough breastmilk.
- Breastfeeding should be discouraged for women who are HIV positive.
- It is important to give water to babies, especially when it is very hot.
- There are many reasons why women are unable to give only breastmilk for the first 6 months; it is very difficult.
- It is better to throw away the first milk that comes in since it is watery and does not help the baby.
- Most children born to mothers who are HIV infected will become infected with HIV.

National IYCF Policy

Ask: Have you heard of the National IYCF Policy? Do you know what it says?

Allow participants to respond.

Pass out copies of the policy and present a brief overview. Explain why the policy was needed (include national malnutrition and HIV data) and the recommendations. The following are the major topics described in the policy.

1. Antenatal care practices.
2. Labour and delivery practices.
3. Optimal IYCF practices for the general population.
4. Feeding in difficult situations (including emergencies).
5. Complementary foods (timely, adequate, safe, and properly fed).

6. Training and capacity-building of service providers.
7. Community involvement and participation.
8. Creating an enabling environment for Infant and Young Child Feeding

Exclusive breastfeeding

Explain that in this training we will talk a lot about exclusive breastfeeding.

Ask: What does the term exclusive breastfeeding mean?

Allow participants to discuss. They should come up with the following definition:

Feeding an infant with breastmilk (including expressed breastmilk) only, without any other food or drink, not even water. However, drops of syrups consisting of vitamins, mineral supplements, or medicines can be given when medically prescribed.

Explain that exclusive breastfeeding provides the ideal food for healthy growth and development of infants and it is all that a child needs for the first 6 months.

Ask: Do many women exclusively breastfeed? Why or why not?

Explain:

- Almost all mothers can breastfeed exclusively provided they have accurate information and support within their families and communities.
- They should have access to skilled practical help from people trained in breastfeeding counselling who can help to build their confidence, improve feeding technique, and prevent or resolve breastfeeding difficulties.
- During this training you will start to develop these skills, or build on skills you are already using in your daily work.

Complementary feeding

Explain that after 6 months of age, all babies require other foods in addition to breastmilk—we call these foods complementary foods. When complementary foods are introduced, breastfeeding should still continue for up to 2 years of age or beyond.

Ask: When do most babies start to eat their first foods? What are the most common foods that babies eat? Encourage participants to discuss.

Explain that infants are particularly vulnerable during the transition period when complementary feeding begins. Ensuring that their nutritional needs are met requires that complementary foods be:

- **Timely** – meaning that they are introduced when the need for energy and nutrients exceeds what can be provided through exclusive and frequent breastfeeding.
- **Adequate** – meaning that they provide sufficient energy, protein, and micronutrients to meet a growing child's nutritional needs.
- **Safe** – meaning that they are hygienically stored and prepared and fed with clean hands using clean utensils and not bottles or teats.
- **Properly fed** – meaning that they are given in response to a child's signals of hunger and satiety, and that meal frequency and feeding methods—actively encouraging the child, even during illness, to consume sufficient food using fingers, spoon, or self-feeding—are suitable for the child's age.

Ask participants if they have any questions, and try to answer them.

Make these points:

- During this training, we will be learning more about how to implement the National IYCF Policy, and how to offer mothers and caregivers the skilled practical help they need to feed their children optimally.
- We will be discussing and practising how to help mothers to breastfeed exclusively, how to prepare and feed complementary foods while continuing to breastfeed, and how to help mothers who are HIV positive.

Session 2: Why breastfeeding is important

Learning objectives

After completing this session, participants will be able to:

- Explain why breastfeeding is important.
- List advantages and disadvantages of breastfeeding.
- Describe the difference between breastfeeding and replacement feeding.

Materials and preparation

- Small blank cards (A5) in four colours (20 of each colour).
- Three A4 sheets of paper, each with one of the following headings; these should be posted on the wall:
 - Advantages for baby.
 - Advantages for mother.
 - Advantages for family and community.
 - Advantages for the country.
- Make sure that **Slides 2/1 through 2/6** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Blank flip chart and markers.

Suggested time: 60 minutes

Session guide

The importance of breastfeeding

Explain that understanding why breastfeeding is important can help you to support mothers who may have doubts about exclusive breastfeeding.

Ask: Why is breastfeeding important?

Divide participants into four groups.

Assign topics to each group:

- Group 1: Advantages for the baby.
- Group 2: Advantages for the mother.
- Group 3: Advantages for the family and community.
- Group 4: Advantages for the country.

Give each group cards (one colour for each group).

Ask groups to write one advantage per card for their topics (pass out additional cards as needed). While groups are writing, post the four A4 sheets of paper on the wall, which should have one title written on each. Be sure there is plenty of space between each title card.

After 5 minutes, ask each group to post its cards with the advantages they listed under the appropriate title cards. Ask a representative from each group to explain each card as they post it and ask the other groups if they have any advantages to add.

Be sure the following are mentioned:

Advantages for babies	Advantages for mother	Advantages for families and communities	Advantages for the country
<p>Colostrum</p> <ul style="list-style-type: none"> • Defends against infection • High in protein • First immunisation <p>Breastmilk</p> <ul style="list-style-type: none"> • Supplies all necessary nutrients in proper proportion • Digests easily without causing constipation • Protects against diarrhoea • Provides antibodies that protect against common illnesses • Protects against infection, including ear infections • During illness helps keep baby well-hydrated • Reduces the risk of developing allergies • Is always ready at the right temperature • Increases mental development • Prevents hypoglycaemia (low blood sugar) • Promotes proper jaw, teeth, and speech development • Is comforting to fussy, overtired, ill, or hurt baby <p>Early skin-to-skin contact</p> <ul style="list-style-type: none"> • Stabilizes the baby's temperature • Promotes bonding 	<ul style="list-style-type: none"> • Reduces blood loss after birth (early/immediate breastfeeding) and helps expel the placenta • Saves time and money • Makes night feedings easier • Delays return of fertility • Reduces the risk of breast and ovarian cancer • Is available 24 hours a day • Ensures close physical contact • Makes mother calmer and more relaxed because of hormones 	<ul style="list-style-type: none"> • Is economical • Is accessible • Needs no preparation • Reduces cost for medicines for sick baby • Delays new pregnancy • Reduces time lost from work caring for a sick child 	<ul style="list-style-type: none"> • Reduces land pollution • Cuts down medication budget • Reduces morbidity and mortality • Improves children's IQ and reduces repeated classes (cuts down on education budget) • Intelligent and productive human resource

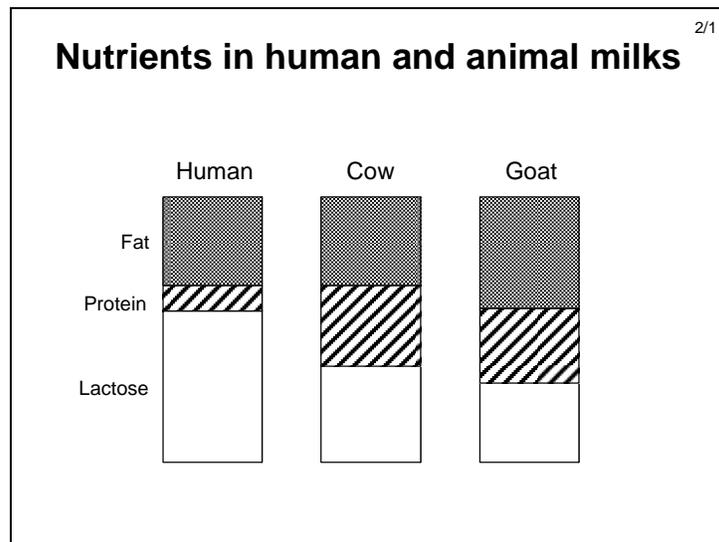
Disadvantage of breastfeeding

Explain the following point:

- If a mother is HIV positive, her baby is exposed to HIV as long as the mother breastfeeds.
- We will discuss this point in great detail in later sections.

The differences between breastfeeding and replacement feeding

Show **Slide 2/1. Nutrients in human and animal milks**



Make the following points:

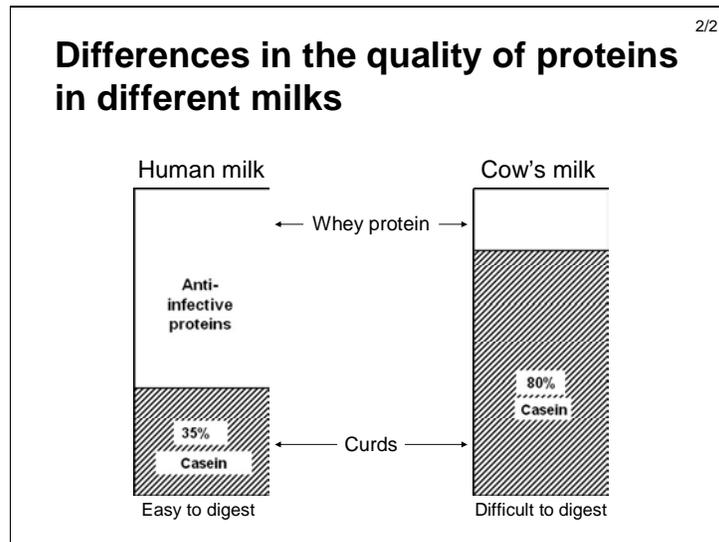
- First, we will look at the nutrients in breastmilk, to see why they are perfect for a baby.
- Formulas are made from a variety of products, including animal milks, soybean, and vegetable oils. Although they have been adjusted so that they are more like human milk, they are still far from perfect for babies.
- In order to understand the composition of formula we need to understand the differences between animal and human milk and how animal milks need to be modified to produce formula.
- This chart compares the nutrients in breastmilk with the nutrients in fresh cow's and goat's milk.
- All the milks contain fat, which provides energy, protein for growth, and a milk sugar called lactose, which also provides energy.

Ask: What is the difference between the amount of protein in human milk and the amount in animal milks?

Wait for a few replies and then explain that animal milk contains more protein than human milk.

Explain that it is difficult for a baby's immature kidneys to excrete the extra waste from the protein in animal milks. Human milk also contains essential fatty acids that are needed for a baby's growing brain and eyes, and for healthy blood vessels. These fatty acids are not present in animal milks, but may have been added to formula.

Show **Slide 2/2. Differences in the quality of proteins in different milks**



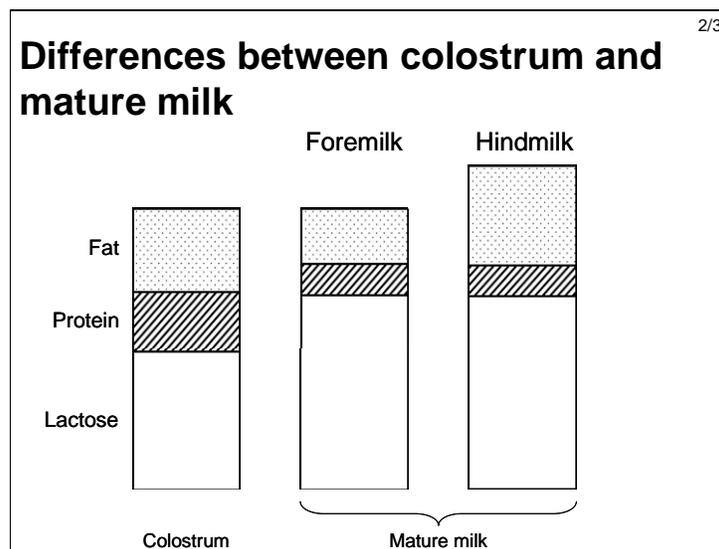
Explain that the protein in different milks varies in quality, as well as in quantity. Although the quantity of protein in cow's milk can be modified to make formula, the quality of proteins cannot be changed. This chart shows that much of the protein in cow's milk is casein.

Ask: What happens if human babies receive too much casein? Wait for a few replies and then continue.

Explain that casein forms thick, indigestible curds in a baby's stomach. You can see in the diagram that human milk contains more whey proteins. The whey proteins contain anti-infective proteins which help to protect a baby against infection.

Babies who are fed formula may develop intolerance to protein from animal milk. They may develop diarrhoea, abdominal pain, rashes, and other symptoms when they have feeds that contain the different kinds of protein.

Slide **2/3. Differences between colostrum and mature milk**



Ask: *What differences do you notice between the different types of breastmilk?*

Wait for a few replies and then continue:

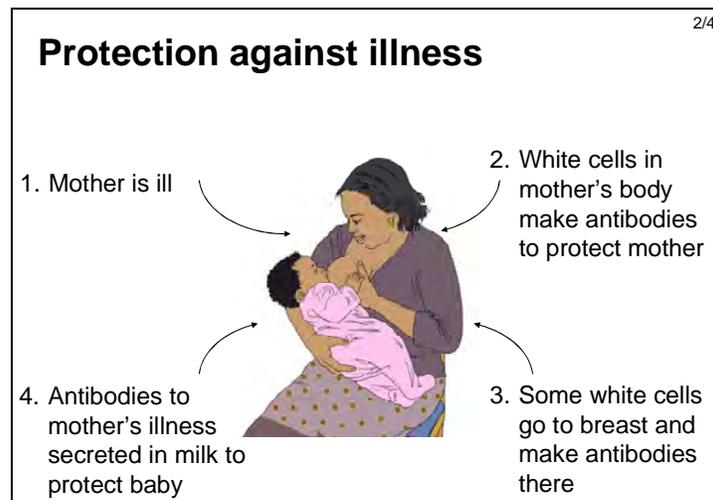
- Colostrum is the special breastmilk that women produce in the first few days after delivery. It is thick and yellowish or clear in colour. It contains more protein than later milk (*Point to the area on the graph*).
- After a few days, colostrum changes into mature milk. There is a larger amount of mature milk, and the breasts feel full, hard, and heavy. Some people call this the milk 'coming in.'
- Foremilk is the thinner milk that is produced early in a feed. It is produced in large amounts and provides plenty of protein, lactose, water, and other nutrients. Babies do not need other drinks of water before they are 6 months old, even in a hot climate.
- Hindmilk is the whiter milk that is produced later in a feed. It contains more fat than foremilk, which is why it looks whiter (*point to the area on the graph*). This fat provides much of the energy of a breastfeed, which is why it is important not to take the baby off a breast too quickly.
- Mothers sometimes worry that their milk is 'too thin.' Milk is never 'too thin.' It is important for a baby to have both foremilk and hindmilk to get a complete 'meal,' which includes all the water that he needs.

Explain the following special properties of colostrum, and why it is important:

- Colostrum contains more antibodies and other anti-infective proteins than mature milk. This is part of the reason why colostrum contains more protein than mature milk.
- It contains more white blood cells than mature milk.
- Colostrum helps to prevent the bacterial infections that are a danger to newborn babies and provides the first immunisation against many of the diseases that a baby meets after delivery.
- Colostrum has a mild purgative effect, which helps to clear the baby's gut of meconium (the first dark stools). This clears bilirubin from the gut, and helps to prevent jaundice from becoming severe.
- Colostrum contains many growth factors which help a baby's immature intestine to develop after birth. This helps to prevent the baby from developing allergies and intolerance to other foods.
- Colostrum is rich in vitamin A, which helps to reduce the severity of any infections the baby might have.

So it is very important for babies to have colostrum for their first few feeds. Colostrum is ready in the breasts when a baby is born. Babies should not be given any drinks or foods before they start breastfeeding. Other feeds given before a baby has colostrum are likely to cause allergy and infection.

Show **Slide 2/4. Protection against illness**



Explain the following:

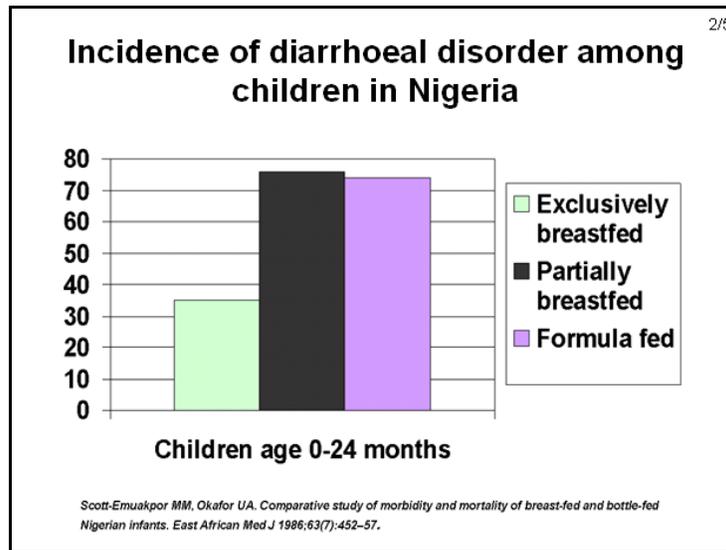
- Breastmilk contains white blood cells and a number of anti-infective factors, which help to protect a baby against many infections.
- Breastmilk also contains antibodies against infections that the mother has had in the past.
- This diagram shows that when a mother develops an illness (1), white cells in her body become active, and make antibodies against the infection to protect her (2). Some of these white cells go to her breasts and make antibodies (3). These antibodies are secreted in her breastmilk to protect her baby (4).
- So a baby should not be separated from his mother when she has an infection, because her breastmilk protects him against the infection.
- Other studies have shown that breastfeeding also protects babies against other infections, for example, ear infections, meningitis, and urinary tract infections.

Explain that the composition of breastmilk is not always the same. It changes according to the age of the baby, and from the beginning to the end of a feed, as we saw in **Slide 2/3** that shows the differences between foremilk and hindmilk.

Incidence of diarrhoea by feeding method²

² Source: Scott-Emuakpor MM, Okafor UA. Comparative study of morbidity and mortality of breast-fed and bottle-fed Nigerian infants. East African Med J 1986;63(7):452–57.

Show **Slide 2/5**. Incidence of diarrhoeal disorder among children in Nigeria



- This chart shows how breastfeeding protects a baby against diarrhoea.
- The chart shows the main findings of a study from Nigeria. It compares how babies fed in different ways get diarrhoea.
- The bars show what percentage of babies had diarrhoea. The bar on the left is for babies who were exclusively breastfed. The bar is smaller because exclusively breastfed babies are much less likely to get diarrhoea. The bar on the right is for babies who were fed formula and is much taller, because these babies were more likely to get diarrhoea than babies fed only on breastmilk.
- The bar in the middle is for babies who were given breastmilk and other feeds or fluids. These babies were as likely to get diarrhoea as were formula-fed babies.
- Babies who are not exclusively breastfed get diarrhoea more often, partly because artificial feeds lack anti-infective factors, and partly because artificial feeds are often made with ingredients and utensils that are contaminated with harmful bacteria.

Explain that in addition to health benefits, there are many psychological benefits of breastfeeding as well.

Psychological benefits of breastfeeding

Ask participants to name some of the psychological benefits for both mothers and babies.

Note their responses on a flip chart. They should mention the following:

- Close contact from immediately after delivery helps the mother and baby to bond and helps the mother to feel emotionally satisfied. Babies tend to cry less if they are breastfed and may be more emotionally secure.
- Some studies suggest that breastfeeding may help a child to develop intellectually.
- Low-birthweight babies fed breastmilk in the first weeks of life perform better on intelligence tests in later childhood than children who are artificially fed.
- If mothers are not breastfeeding, for a medical reason, it is important to help them to bond with their babies in other ways apart from breastfeeding.

Disadvantages of artificial feeding

Ask: What are the disadvantage of feeding formula and animal milk?

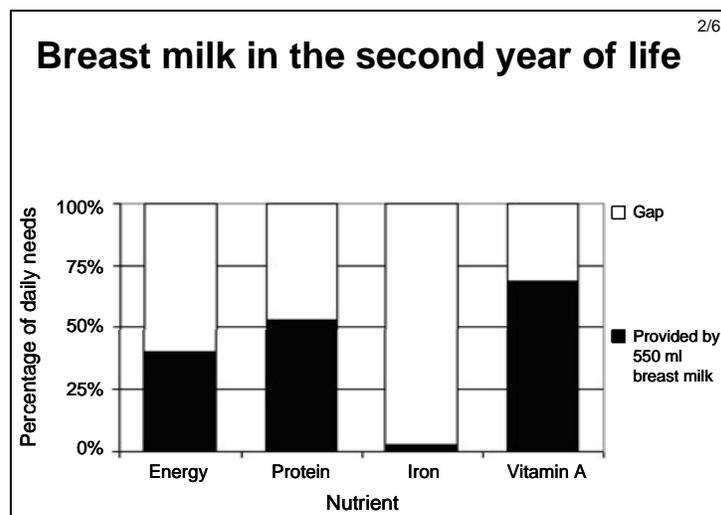
Allow participants to discuss. Write their responses on a flip chart. After they have discussed, explain the following:

- Artificial feeding may interfere with bonding. The mother and baby may not develop such a close, loving relationship.
- An artificially-fed baby is more likely to become ill with diarrhoea, as well as respiratory and other infections. The diarrhoea may become persistent.
- He may get too little milk and become malnourished because he receives too few feeds or because they are too dilute. He is more likely to suffer from vitamin A deficiency.
- He is more likely to develop allergic conditions such as eczema and possibly asthma.
- He may become intolerant of animal milk, so that the milk causes diarrhoea, rashes, and other symptoms.
- The risk of some chronic diseases in the child, such as diabetes, is increased.
- A baby may get too much artificial milk and become obese.
- He may not develop so well mentally, and may score lower on intelligence tests.
- A mother who does not breastfeed may become pregnant sooner. She is more likely to become anaemic after childbirth, and later to develop cancer of the ovary and the breast.
- So artificial feeding is harmful for children and their mothers.

Breastmilk in the second year of life

Explain that for the first 6 months of life, exclusive breastfeeding can provide all the nutrients and water that a baby needs. From the age of 6 months, breastmilk is no longer sufficient by itself. In Session 1 we discussed how all babies need complementary foods after completing 6 months, in addition to breastmilk. However, breastmilk continues to be an important source of energy and high-quality nutrients beyond 6 months of age. We will discuss this in more detail in the sessions on complementary feeding.

Show **Slide 2/6. Breastmilk in the second year** and make the points that follow:



This chart shows how much of a child's daily energy and nutrient needs can be supplied by breastmilk during the second year of life.

Ask: How much of the protein that a child needs in the second year can breastmilk provide? How much of the energy that a child needs in the second year can breastmilk provide?

Wait for a few replies and then continue.

It can provide about one-third of the energy and half of the protein a child needs.

Ask: How much of the vitamin A that a child needs in the second year can breastmilk provide?

Wait for a few replies and then continue.

Breastmilk can provide about 75% of the vitamin A that a child needs, provided the mother is not deficient in vitamin A herself.

Ask: How much of the iron that a child needs in the second year can breastmilk provide?

Wait for a few replies and then continue.

Breastmilk provides less than 5% of the iron that a child needs in the second year. After 6 months of age, it is especially important that children are fed iron-rich complementary foods in addition to continued breastfeeding.

Ask: What are common infant feeding practices that interfere with optimal infant feeding?

Encourage participants to discuss. (Participants may mention waiting to breastfeed until the umbilical cord falls off, giving water and other foods before 6 months, not feeding colostrum, etc.)

Ask participants if they have any questions, and try to answer them.

Trainer's notes

Breastfeeding and maternal breast and ovarian cancer risk. Several studies have shown that a history of breastfeeding is associated with a reduced risk of many diseases in infants and mothers. These studies suggest that the longer women breastfeed the more they are protected against breast and ovarian cancer^{3,4,5}. In addition, among postmenopausal women, increased duration of lactation was associated with a lower prevalence of hypertension, diabetes, hyperlipidemia, and cardiovascular disease.

Sugar: The sugar *lactose* is the main carbohydrate in milk. None of the milks contain the carbohydrate *starch*. Starch is a very important nutrient for older children and adults; it is the main nutrient in staple foods and in many complementary foods. But young babies cannot digest starch easily, so it is not appropriate to give them starchy foods in the first few months of life. Breastmilk contains more lactose than other milks.

Protein: There is some casein in human milk, but less than in cow's milk, and it forms soft curds that are easier to digest. The whey proteins in animal and human milks are different. Human milk contains *alpha*-lactalbumin and cow's milk contains *beta*-lactoglobulin. In addition, the proteins in animal milks and formula contain a different balance of amino acids from breastmilk, which may not be ideal for a baby. Animal milk and formula may lack the amino acid *cystine*, and formula may lack *taurine*, which newborns need especially for brain growth. Taurine is now sometimes added to formulas. The anti-infective proteins in human milk include lactoferrin (which binds iron and prevents the growth of bacteria which need iron) and lysozyme (which kills bacteria), as well as antibodies (immunoglobulins, mostly IgA). Other important anti-infective factors include the *bifidus factor*, which promotes the growth of *Lactobacillus bifidus*. *L. bacillus* inhibits the growth of harmful bacteria, and gives breastfed babies' stools their yoghurt smell. Breastmilk also contains anti-viral and anti-parasitical factors.

³ Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. *Lancet*. 2002 Jul 20;360(9328):187-95.

⁴ Danforth KN, Tworoger SS, Hecht JL, Rosner BA, Colditz GA, Hankinson SE. Breastfeeding and risk of ovarian cancer in two prospective cohorts. *Cancer Causes Control*. 2007 Jun;18(5):517-23. Epub 2007 Apr 21.

⁵ Schwarz EB, Ray RM, Stuebe AM, Allison MA, Ness RB, Freiberg MS, Cauley JA. Duration of lactation and risk factors for maternal cardiovascular disease. *Obstet Gynecol*. 2009 May;113(5):974-82.

Babies who develop intolerance to animal proteins may develop persistent diarrhoea. Babies who are fed animal milks or formula are also more likely than breastfed babies to develop *allergies*, which may cause eczema. A baby may develop intolerance or allergy after only a few artificial feeds given in the first few days of life.

Vitamins: The amounts of vitamins are different in breastmilk and animal milks. Cow's milk has plenty of the B vitamins, but it does not contain as much vitamin A and vitamin C as human milk. Breastmilk contains plenty of vitamin A, if the mother has enough in her diet. Breastmilk can supply much of the vitamin A that a child needs even in the second year of life. *Vitamin A supplements for mothers:* Do not give a mother high-dose capsules of vitamin A (over 10,000 units daily) more than 4 to 6 weeks after she has given birth. After 6 weeks, there is a slight possibility that she could be pregnant. If high doses of vitamin A are given in early pregnancy, they can damage the foetus. *B vitamins in different milks:* For some B vitamins, the amount in human milk is the same or more than in cow's milk, but for most of them the amount in cow's milk is 2 to 3 times higher than in breastmilk. These high levels are more than a baby needs. Goat's milk lacks the B vitamin folic acid, and this can cause anaemia. *Vitamin C:* Health workers often recommend giving babies fruit juice from a very early age, to provide vitamin C. This may be necessary for artificially-fed babies, but it is not necessary for breastfed babies.

Iron: Different milks contain similar very small amounts of iron. However, only about 10% of the iron in cow's milk is absorbed, but about 50% of the iron from breastmilk is absorbed. Babies fed on cow's milk may not get enough iron, and they often become anaemic. Some brands of formula have iron added. This added iron is not well absorbed, so a large amount has to be added to ensure that a baby gets enough iron to protect against anaemia. Added iron may make it easier for some kinds of bacteria to grow, which may increase the chances of some kinds of infection, for example, meningitis and septicaemia.

Foremilk and hindmilk: There is no sudden change from 'fore' to 'hind' milk. The fat content increases gradually from the beginning to the end of a feed.

Protection against infection: The main immunoglobulin in breastmilk is IgA—often called 'secretory' immunoglobulin A. It is secreted within the breast into the milk, in response to the mother's infections. This is different from other immunoglobulins (such IgG) which are carried in the blood.

Intolerance and allergies to milk proteins: Colostrum and breastmilk contain many hormones and growth factors. The function of all of them is not certain. However, epidermal growth factor, which is present in both, has been shown to stimulate growth and maturation of the intestinal villi. Undigested cow's milk proteins can pass through the immature infant gut into the blood, and may cause intolerance and allergy to milk protein. Epidermal growth factor helps to prevent the absorption of large molecules by stimulating rapid development of the gut. This 'seals' the baby's intestine, so that it is more difficult for proteins to be absorbed without being digested. Antibodies probably help to prevent allergies by coating the intestinal mucosa, and preventing the absorption of larger molecules.

Vitamin A from breastmilk in the second year of life: There are different estimates of how much of a child's vitamin A requirements can be provided by breastfeeding in the second year, ranging from 38% to 75%. The amount depends on the mother's vitamin A status, and the volume of breastmilk consumed. However, what we do know is that breastfeeding in the second year provides useful protection to the child against vitamin A deficiency.

Session 3: How breastfeeding works

Learning objectives

After completing this section participants will be able to:

- Name the main parts of the breast and describe their function.
- Describe the hormonal control of breastmilk production and ejection.
- Describe the difference between good and poor attachment of a baby at the breast.
- Describe the difference between effective and ineffective suckling.

Materials and preparation

- Make sure that **Slides 3/1–3/7** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Note: Do not show Slide 3/1 until prompted in the instructions. It is important to first instruct the participants to complete the initial activity first.

Suggested time: 45 minutes

Session guide

Explain that in order to help mothers, you need to understand how breastfeeding works. You cannot learn a specific way of counselling for every situation, or every difficulty. But if you understand how breastfeeding works, you can work out what is happening and help each mother to decide what is best for her.

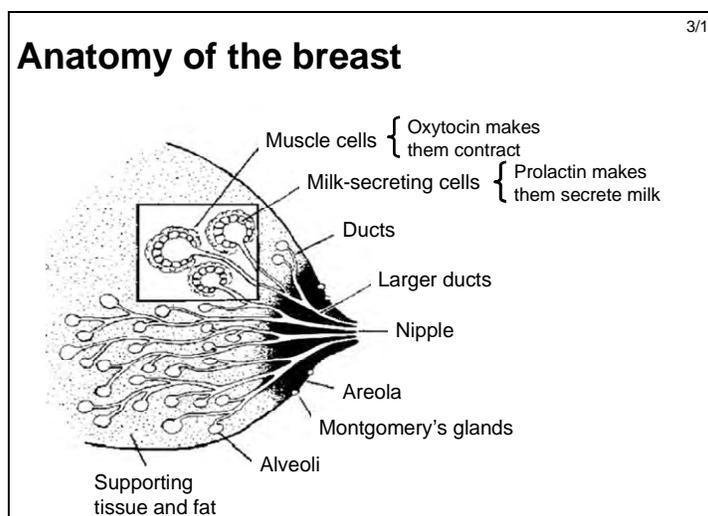
Divide participants into groups of five and pass out flip-chart paper and markers. Ask each group to draw:

- The breast as it looks on the outside.
- The breast as it looks from the inside.

Ask participants to use their drawings to talk about how the breast makes milk with their group. Ask each group to prepare to explain how the breast makes milk to the larger group, using their drawings.

Ask each group in plenary to describe its drawings and explain how milk is produced.

Show **Slide 3/1. Anatomy of the breast**. Ask participants to look at their drawings.



Explain the following using the slide:

- This diagram shows the anatomy of the breast.
- First, look at the nipple, and the dark skin called the areola which surrounds it. In the areola are small glands called Montgomery's glands which secrete an oily fluid to keep the skin healthy. (*Point to the relevant parts of the diagram on the slide as you explain them.*)
- Inside the breast are the alveoli, which are very small sacs made of milk-secreting cells. There are millions of alveoli—the diagram shows only a few. The box shows three of the alveoli enlarged. A hormone called prolactin makes these cells produce milk.
- Around the alveoli are muscle cells, which contract and squeeze out the milk. A hormone called oxytocin makes the muscle cells contract.
- Small tubes, or ducts, carry milk from the alveoli to the outside. Milk is stored in the alveoli and small ducts between feeds.
- The larger ducts beneath the areola dilate during feeding and hold the breastmilk temporarily during the feed.
- The secretory alveoli and ducts are surrounded by supporting tissue and fat.

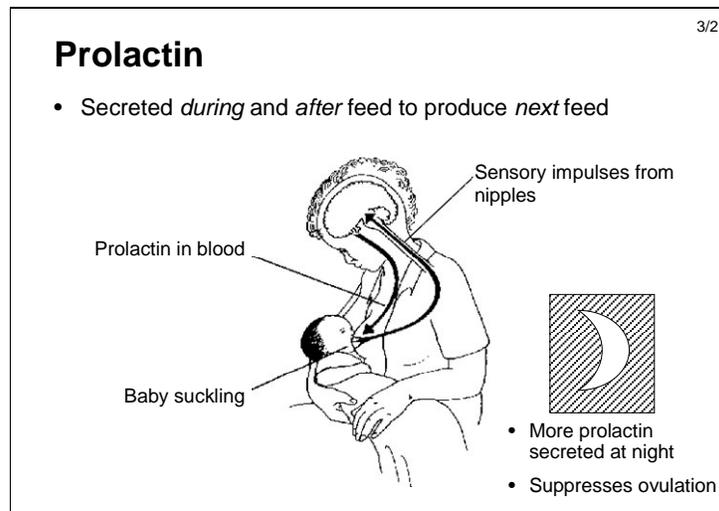
Ask: Some mothers think their breasts are too small to produce enough milk. What is the difference between large breasts and small breasts?

Encourage participants to discuss.

Explain that it is the fat and other tissue which gives the breast its shape, and which makes most of the difference between large and small breasts. Small breasts and large breasts both contain about the same amount of gland tissue, so they can both make plenty of milk.

Explain that breastmilk is produced as a result of the action of hormones (which send a message to the brain) and stimulated by suckling at the breast. When a baby suckles, the tongue and the mouth stimulate the nipple. The nerves in the nipple send a message to the mother's brain that the baby wants milk. The brain responds and orders the production of two hormones, prolactin and oxytocin.

Show **Slide 3/2. Prolactin**. Make the points that follow:



- This diagram explains about the hormone prolactin.
- When a baby suckles at the breast, sensory impulses go from the nipple to the brain. In response, the pituitary gland at the base of the brain secretes prolactin.

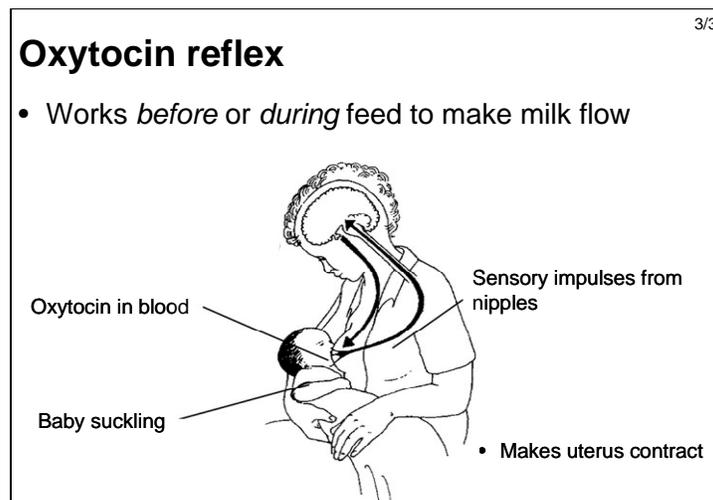
- Prolactin goes in the blood to the breast, and makes the milk-secreting cells produce milk.
- Most of the prolactin is in the blood about 30 minutes after the feed—so it makes the breast produce milk for the next feed. For this feed, the baby takes the milk which is already in the breast.

Ask: *What does this suggest about how to increase a mother's milk supply?*

Wait for a few replies and then continue.

- It tells us that if her baby suckles more, her breasts will make more milk. So, suckling makes more milk.
- If a mother has two babies, and they both suckle, her breasts make milk for two. If a baby stops suckling, the breasts soon stop making milk.
- Sometimes people suggest that to make a mother produce more milk, we should give her more to eat, more to drink, more rest, or medicines. It is important for a mother to eat and drink enough, but these things do not help her to produce milk if her baby does not suckle.
- Some special things to remember about prolactin are:
 - More prolactin is produced at night; so breastfeeding at night is especially helpful for keeping up the milk supply.
 - Hormones related to prolactin suppress ovulation, so breastfeeding can help to delay a new pregnancy. Breastfeeding at night is important for this.

Show **Slide 3/3. Oxytocin reflex**



Make the points that follow:

- This diagram explains about the hormone oxytocin.
- When a baby suckles, sensory impulses go from the nipple to the brain. In response, the pituitary gland at the base of the brain secretes the hormone oxytocin.
- Oxytocin goes in the blood to the breast, and makes the muscle cells around the alveoli contract.
- This makes the milk which has collected in the alveoli flow along the ducts to the larger ducts beneath the areola. Here the milk is stored temporarily during the feed. This is the oxytocin reflex, the milk-ejection reflex or the let-down reflex.
- Oxytocin is produced more quickly than prolactin. It makes the milk in the breast flow for this feed. Oxytocin can start working before a baby suckles, when a mother learns to expect a feed.

- If the oxytocin reflex does not work well, the baby may have difficulty in getting the milk. In this situation, it may seem as if the breasts have stopped producing milk. However, the breasts are producing milk, but it is not flowing out.
- Oxytocin also makes a mother's uterus contract after delivery. This helps to reduce bleeding, but it sometimes causes uterine pain and a rush of blood during a feed for the first few days. The pains can be quite strong.
- Explain that the oxytocin reflex (milk flow) is easily affected by a mother's thoughts and feelings.
- Good feelings, for example, feeling pleased with her baby, or thinking lovingly of him, and feeling confident that her milk is the best for him, can help the oxytocin reflex to work and her milk to flow. Sensations such as touching or seeing her baby, or hearing him cry, can also help the reflex.
- But bad feelings, such as pain, or worry, or doubt that she has enough milk, can hinder the reflex and stop her milk from flowing. Fortunately, this effect is usually temporary.

Ask: Why is it important to understand the oxytocin reflex in the way we care for mothers after delivery?

Participants should mention the following. Mention them if they do not.

- A mother needs to have her baby near her all the time, so that she can see, touch, and respond to him. If a mother is separated from her baby between feeds, her oxytocin reflex may not work so easily.
- You need to remember a mother's feelings whenever you talk to her. Try to make her feel good and build her confidence. Try not to say anything which may make her doubt her breastmilk supply.
- Mothers are often aware of their oxytocin reflex. There are several signs of an active reflex that they, or you, may notice.
 - A squeezing or tingling sensation in her breasts just before she feeds her baby, or during a feed.
 - Milk flowing from her breasts when she thinks of her baby, or hears him crying.
 - Milk dripping from her other breast when her baby is suckling.
 - Milk flowing from her breasts in fine streams, if her baby comes off the breast during a feed.
 - Pain from uterine contractions, sometimes with a rush of blood, during feeds in the first week.
 - Slow deep sucks and swallowing by the baby, which show that breastmilk is flowing into his mouth.

Summarise the slides on prolactin and oxytocin by explaining:

- Prolactin works after the feed and makes the milk for the next feed. Oxytocin works while the baby is suckling and makes the milk flow for this feed. The oxytocin reflex can be affected by a mother's thoughts, feelings, and sensations. If a woman is happy and confident that she can breastfeed, her milk flows well. But if she doubts whether she can breastfeed, her worries may stop the milk from flowing.

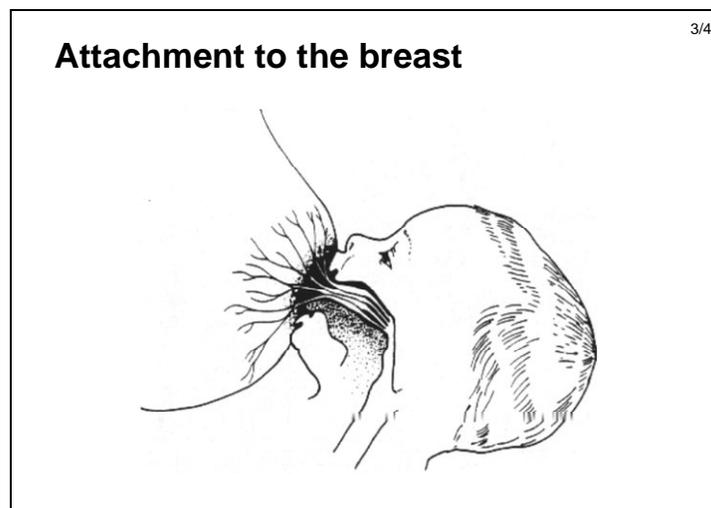
Explain the following:

- Breastmilk production is also controlled within the breast itself. Sometimes one breast stops making milk, while the other breast continues to make milk, although oxytocin and prolactin go equally to both breasts.
- There is a substance in breastmilk which can reduce or inhibit milk production. If a lot of milk is left in a breast, the inhibitor stops the cells from secreting any more. This

helps to protect the breast from the harmful effects of being too full. It is obviously necessary if a baby dies or stops breastfeeding for some other reason.

- If breastmilk is removed, by suckling or expression, the inhibitor is also removed. Then the breast makes more milk.
- This helps you to understand why:
 - If a baby stops suckling from one breast, that breast stops making milk.
 - If a baby suckles more from one breast, that breast makes more milk and becomes larger than the other.
 - For a breast to continue making milk, the milk must be removed.
 - If a baby cannot suckle from one or both breasts, the breastmilk must be removed by expression to enable production to continue. This is an important point, which we will discuss later in the course when we talk about expressing breastmilk.

Show **Slide 3/4. Attachment to the breast**



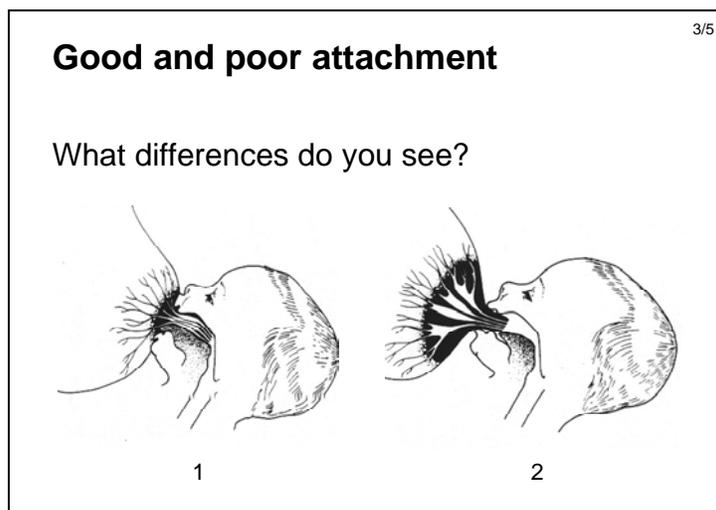
This drawing shows how a baby takes the breast into his mouth to suckle.

Ask: What do you see? Ask one participant to come to the screen to show how the baby takes the breast into his mouth.

Make sure the following are mentioned:

- He has taken much of the areola and the underlying tissues into his mouth.
- The larger ducts are included in these underlying tissues.
- He has stretched the breast tissue out to form a long 'teat.'
- The nipple forms only about one-third of the 'teat.'
- The baby is suckling from the breast, not the nipple.
- Notice the position of the baby's tongue:
 - His tongue is forward, over his lower gums, and beneath the larger ducts.
 - His tongue is cupped round the 'teat' of breast tissue. You cannot see that in this drawing, though you may see it when you observe a baby.
 - The tongue presses milk out of the larger ducts into the baby's mouth.
- If a baby takes the breast into his mouth in this way, we say that he is well attached to the breast. He can remove breastmilk easily and we say that he is suckling effectively.
- When a baby suckles effectively, his mouth and tongue do not rub the skin of the breast and nipple.

Show **Slide 3/5. Good and poor attachment**



Here you see two pictures. Picture 1 is the same baby as the previous slide. He is well attached to the breast. Picture 2 shows a baby suckling in a different way.

Ask: In what way is Picture 2 different from Picture 1?

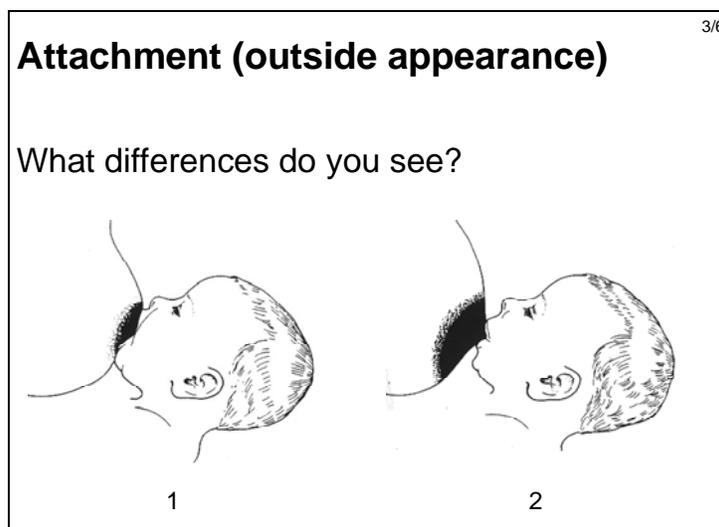
Wait for a few replies and then continue. Make sure that the points below are clear.

Note: If participants notice signs that are described with Slide 3/6, accept their observations, but do not repeat or emphasise them yet.

The most important differences to see in Picture 2 are:

- Only the nipple is in the baby's mouth, not the underlying breast tissue.
- The larger ducts are outside the baby's mouth, where his tongue cannot reach them.
- The baby's tongue is back inside his mouth, and not pressing on the larger ducts.
- The baby in Picture 2 is poorly attached. He is 'nipple sucking.'

Show **Slide 3/6. Attachment (outside appearance)**. This picture shows the same two babies from the outside.



Ask: What differences do you see between pictures 1 and 2?

Wait for a few replies and then explain.

- In Picture 1 you can see more of the areola above his top lip and less below his bottom lip. This shows that he is reaching with his tongue under the larger ducts to press out the milk. In Picture 2 you can see the same amount of areola above his top lip and below his bottom lip, which shows that he is not reaching the larger ducts.
- In Picture 1 his mouth is wide open. In Picture 2 his mouth is not wide open and points forward. In Picture 1 his lower lip is turned outwards. In Picture 2 his lower lip is not turned outwards.
- In Picture 1 the baby's chin touches the breast. In Picture 2 his chin does not touch the breast.
- These are some of the signs that you can see from the outside which tell you that a baby is well attached to the breast.
- Seeing a lot of areola is not a reliable sign of *poor* attachment. Some mothers have a very large areola, and you can see a lot even if the baby is well attached. It is more reliable to compare how much areola you see above the baby's top lip and below his bottom lip.

There are other differences that you can see when you look at a real baby; we will talk about these in Session 4.

Ask: What do you think might be the results of poor attachment?

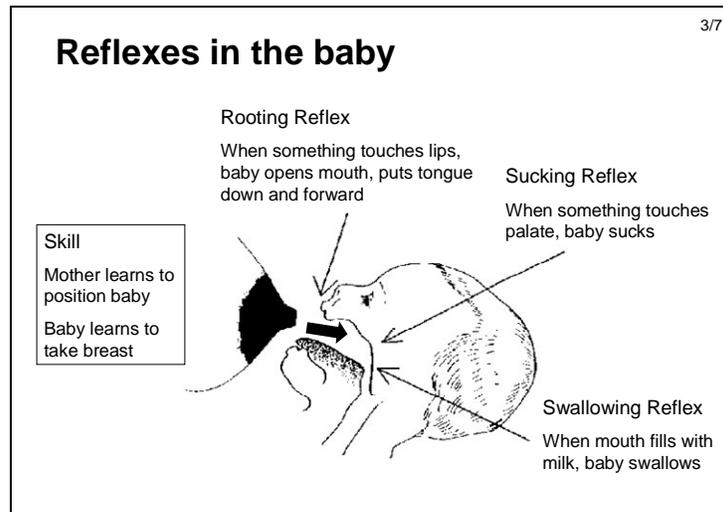
Write participants' responses on a flip chart. Participants should mention the following:

- Painful nipples.
- Damaged nipples.
- Engorgement.
- Baby unsatisfied and cries a lot.
- Baby feeds frequently and for a long time.
- Decreased milk production.
- Baby fails to gain weight.

Explain the following:

- If a baby is poorly attached, and he 'nipple sucks,' it is painful for his mother. Poor attachment is the most important cause of sore nipples.
- As the baby sucks hard to try to get milk he pulls the nipple in and out. This makes the nipple skin rub against his mouth. If a baby continues to suck in this way, he can damage the nipple skin and cause cracks (also known as fissures).
- As the baby does not remove breastmilk effectively the breasts may become engorged.
- Because he does not get enough breastmilk, he may be unsatisfied and cry a lot. He may want to feed often or for a very long time at each feed.
- Eventually if breastmilk is not removed the breasts may make less milk.
- A baby may fail to gain weight and the mother may feel she is a breastfeeding failure.
- To prevent this happening all mothers need skilled help to position and attach their babies.
- Also, babies should not be given feeding bottles. If a baby feeds from a bottle before breastfeeding is established, he may have difficulty suckling effectively. Even babies who start bottle feeds after a few weeks may also begin to suckle ineffectively.

Show **Slide 3/7. Reflexes in the baby**



Explain the following.

- Earlier slides showed reflexes in a mother, but it is also useful to know about the reflexes in a baby.
- There are three main reflexes: the rooting reflex, the sucking reflex, and the swallowing reflex.
- When something touches a baby's lips or cheek, he opens his mouth and may turn his head to find it. He puts his tongue down and forward. This is the 'rooting' reflex. It should normally be the breast that he is 'rooting' for.
- When something touches a baby's palate, he starts to suck it. This is the sucking reflex.
- When his mouth fills with milk, he swallows. This is the swallowing reflex.
- All these reflexes happen automatically without the baby having to learn to do them.
- Notice in the drawing that the baby is not coming straight towards the breast. He is coming up to it from below the nipple. This helps him to attach well because:
 - The nipple is aiming towards the baby's palate, so it can stimulate his sucking reflex.
 - The baby's lower lip is aiming well below the nipple so he can get his tongue under the larger ducts.

Ask participants if they have any questions, and try to answer them.

Trainer's notes

Attachment: The amount of areola that you see outside a baby's mouth may help you to compare the attachment of the same baby before and after you correct it. However, the first time that you see a baby, it is not a reliable sign. A mother may have a very small areola, which all goes inside the baby's mouth easily; or a very large areola, so that you can always see a lot outside.

Causes of poor attachment:

1. Use of a feeding bottle: The action of sucking from a bottle is different from suckling from the breast. Babies who have had some bottle feeds may try to suck on the breast as if it is a bottle, and this makes them 'nipple suck.' When this happens, it is sometimes called

'suckling confusion' or 'nipple confusion.' So giving a baby feeds from a bottle can interfere with breastfeeding. Skilled help is needed to overcome this problem.

2. Inexperienced mother: If a mother has not had a baby before, or if she bottle-fed or had difficulties breastfeeding previous babies, she may have difficulty getting her baby well attached to her breast. However, even mothers who have previously breastfed successfully sometimes have difficulties.
3. Functional difficulty: Some situations can make it more difficult for a baby to attach well to the breast. For example: if a baby is very small or weak, if a mother's nipples and the underlying tissue are poorly protractile, if her breasts are engorged, or if there has been a delay in starting to breastfeed. Mothers and babies can breastfeed in all these situations, but they may need extra skilled help to succeed.
4. Lack of skilled support: A very important cause of poor attachment is lack of skilled help and support. Some women are isolated and lack support from the community. They may lack help from experienced women such as their own mothers; or from traditional birth attendants, who often are very skilled at helping with breastfeeding. Women in 'bottle feeding' cultures may be unfamiliar with how a breastfeeding mother holds and feeds her baby. They may never have seen a baby breastfeeding. Health workers who look after mothers and babies; for example, doctors and midwives, may not have been trained to help mothers to breastfeed.

The difference between 'sucking' and 'suckling'

The term 'suckling' is usually used when referring to a baby feeding from the breast. The term 'sucking' is used when referring to a baby feeding from a bottle. However, note that the reflex referred to earlier in this curriculum is known as 'sucking reflex,' as it refers to anything that touches the baby's palate.

Session 4: Assessing a breastfeed

Learning objectives

After completing this session participants will be able to:

- Explain the four key points of attachment.
- Assess a breastfeed by observing a mother and baby.
- Identify a mother who may need help.
- Recognise signs of good and poor attachment and positioning.
- Explain the contents and arrangement of the BREASTFEEDING OBSERVATION JOB AID.

Materials and preparation

- Make sure that **Slides 4/1–4/8** are in the correct order. Study the slides and the text that goes with them so that you are familiar with what each slide shows and the particular points to teach from it.
- Make copies of the BREASTFEEDING OBSERVATION JOB AID for each participant.
- For demonstration of the general section of the BREASTFEEDING OBSERVATION JOB AID:
 - Ask two participants to help you with the demonstration.
 - Explain what you want them to do, and help them to practise.
 - Make sure that they have dolls for the demonstration.
 - If you feel that participants cannot do this on the first day of the course, ask other trainers to help instead.
 - For demonstration of how to hold a breast, make sure that you have a model breast available. (See instructions on page 8 ‘How to Make a Model Breast.’)
- At the beginning of the session ask participants to arrange their seats so that they are sitting in a half-circle near to the screen, without tables or other obstruction in front of them. They need to be able to go to the screen to point out appearances on the slides.
- Put a seat for yourself to sit with the participants, so that you do not stand up in front to lecture.

Suggested time: 90 minutes

Session guide

Pass out copies of the BREASTFEEDING OBSERVATION JOB AID to each participant.

Give them a few minutes to review it and then make these points:

- Assessing a breastfeed helps you to decide if a mother needs help or not, and how to help her.
- You can learn a lot about how well or badly breastfeeding is going by observing, before you ask questions.
- There are some things you can observe when a baby is not breastfeeding. Other things you can only observe if a baby is breastfeeding.
- This form will help you to remember what to look for when you assess a breastfeed. The form is arranged in five sections: General, Breasts, Baby’s Position, Baby’s Attachment, and Suckling.
- The signs on the left all show that breastfeeding is going well. The signs on the right indicate a possible difficulty.
- As you observe a breastfeed, mark a tick in the box for each sign that you observe. If you do not observe a sign you should make no mark.

- When you have completed the form, if all the ticks are on the left-hand side of the form, breastfeeding is probably going well. If there are some ticks on the right-hand side, then breastfeeding may not be going well. This mother may have a difficulty and she may need your help.

BREASTFEEDING OBSERVATION JOB AID	
Mother's name _____ Baby's name _____	Date _____ Baby's age _____
Signs that breastfeeding is going well: GENERAL <i>Mother:</i> <input type="checkbox"/> Mother looks healthy <input type="checkbox"/> Mother relaxed and comfortable <input type="checkbox"/> Signs of bonding between mother and baby <i>Baby:</i> <input type="checkbox"/> Baby looks healthy <input type="checkbox"/> Baby calm and relaxed <input type="checkbox"/> Baby reaches or roots for breast if hungry BREASTS <input type="checkbox"/> Breasts look healthy <input type="checkbox"/> No pain or discomfort <input type="checkbox"/> Breast well supported with fingers BABY'S POSITION <input type="checkbox"/> Baby's head and body in line <input type="checkbox"/> Baby held close to mother's body <input type="checkbox"/> Baby's whole body supported <input type="checkbox"/> Baby approaches breast, nose to nipple BABY'S ATTACHMENT <input type="checkbox"/> More areola seen above baby's top lip <input type="checkbox"/> Baby's mouth open wide <input type="checkbox"/> Lower lip turned outwards <input type="checkbox"/> Baby's chin touches breast SUCKLING <input type="checkbox"/> Slow, deep sucks with pauses <input type="checkbox"/> Cheeks round when suckling <input type="checkbox"/> Baby releases breast when finished <input type="checkbox"/> Mother notices signs of oxytocin reflex	Signs of possible difficulty: GENERAL <i>Mother:</i> <input type="checkbox"/> Mother looks ill or depressed <input type="checkbox"/> Mother looks tense and uncomfortable <input type="checkbox"/> No mother/baby eye contact <i>Baby:</i> <input type="checkbox"/> Baby looks sleepy or ill <input type="checkbox"/> Baby is restless or crying <input type="checkbox"/> Baby does not reach or root BREASTS <input type="checkbox"/> Breasts look red, swollen, or sore <input type="checkbox"/> Breast or nipple painful <input type="checkbox"/> Breast held with fingers on areola away from nipple BABY'S POSITION <input type="checkbox"/> Baby's neck and head twisted to feed <input type="checkbox"/> Baby not held close <input type="checkbox"/> Baby supported by head and neck only <input type="checkbox"/> Baby approaches breast, lower lip/chin to nipple BABY'S ATTACHMENT <input type="checkbox"/> More areola seen below bottom lip <input type="checkbox"/> Baby's mouth not open wide <input type="checkbox"/> Lips pointing forward or turned in <input type="checkbox"/> Baby's chin not touching breast SUCKLING <input type="checkbox"/> Rapid shallow sucks <input type="checkbox"/> Cheeks pulled in when suckling <input type="checkbox"/> Mother takes baby off the breast <input type="checkbox"/> No signs of oxytocin reflex notice

Using the job aid: Explain sections on ‘General’ and ‘Breasts’

- Ask one participant to read aloud the points in the first section of the form (General), reading the point from the left-hand column and then the corresponding point from the right-hand column. Then ask another participant to read the next section (Breasts). Do not read the other sections at this stage—they will be read later.
- Ask participants to refer to the BREASTFEEDING OBSERVATION JOB AID during the rest of the session.
- Ask two participants to play the roles of mothers and babies in the following demonstration and give them the dolls.
- Ask the other participants to start observing the ‘mothers and babies.’ Do not let this role play last more than 2 minutes.

Role plays

Mother A (Mampho) sits comfortably and relaxed, and acts like she is happy and pleased with her baby. She holds baby close, facing her breast, and she supports his whole body. She looks at her baby, and touches him lovingly. She supports her breast with her fingers against her chest wall below her breast, and her thumb above, away from the nipple.

Mother B (Malerato) sits uncomfortably, and acts like she is sad and not interested in her baby. She holds baby loosely, and not close, with his neck twisted, and she does not support his whole body. She does not look at him or fondle him, but she shakes or prods him a few times to make him go on breastfeeding. She uses a scissor grip to hold her breast.

As they are observing the ‘mothers and babies,’ ask what they have observed from the first two sections of the BREASTFEEDING OBSERVATION JOB AID by making the following points:

- Look at the mother to see if she looks well. Her expression may tell you something about how she feels—for example, she may be in pain.
- Observe whether the mother looks relaxed and comfortable. If a mother holds her baby securely and feels confident, it is easier for her baby to suckle effectively, and her milk will flow more easily. If a mother is nervous and lacks confidence, she may show this by shaking or prodding the baby to make him go on feeding. This can upset her baby and interfere with suckling and breastmilk flow.
- Observing how a mother interacts with her baby whilst feeding is important. Remember from the last session that if a mother feels good about breastfeeding, this will help her oxytocin reflex to work well, and this will help her milk to flow.
- Look at the baby’s general health, nutrition, and alertness. Look for conditions which may interfere with breastfeeding; e.g., a blocked nose or difficult breathing.
- Notice whether the breasts look healthy. You may notice a cracked nipple, or may see that the breast is inflamed. We will talk about breast conditions in more detail later in the course.
- If breastfeeding feels comfortable and pleasant for the mother, her baby is probably well attached. Ask the mother how breastfeeding feels.
- Notice how the mother is holding her breast.

Demonstrate these points with a model breast and doll, or on your own body. Explain that how a mother holds her breast during feeding is important.

- Does the mother lean forward and try to push the nipple into the baby’s mouth; or does she bring her baby to the breast, supporting her whole breast with her hand?

- Does she hold the breast close to the areola? This makes it more difficult for a baby to suckle. It may also block the milk ducts so that it is more difficult for the baby to get the breastmilk.
- Does the mother hold her breast back from her baby's nose with her finger? This is not necessary.
- Does the mother use the 'scissor' hold – when she holds the nipple and areola between her index finger above and middle finger below? This can make it more difficult for a baby to take enough of her breast into his mouth.
- Does the mother support her breast in an appropriate way:
 - With her fingers against the chest wall?
 - With her first finger supporting the breast?
 - With her thumb above, away from the nipple?

Explain the section on 'Baby's Position'

Ask one participant to read aloud the points in the third section of the BREASTFEEDING OBSERVATION JOB AID ('Baby's Position'), reading the point from the left-hand column and then the corresponding point from the right-hand column. Ask the participants what they observed during the previous role play from the third section of the form. Then make these points:

- Observe how the mother holds her baby. Notice if the baby's head and body are in line.
- Notice if she holds the baby close to the breast and facing it, making it easier for him to suckle effectively. If she holds him loosely, or turned away so that his neck is twisted, it is more difficult for him to suckle effectively.
- If the baby is young, observe whether the mother supports his whole body or only his head and shoulders.

Explain the section on 'Baby's Attachment'

Ask one participant to read aloud the points in the fourth section of the BREASTFEEDING OBSERVATION JOB AID ('Baby's Attachment'), reading the point from the left-hand column and then the corresponding point from the right-hand column. These points will not have been observed during the role-play with the doll. The four key points of attachment were covered in the last session.

Explain the section on 'Suckling'

Ask one participant to read aloud the points in the fifth section of the BREASTFEEDING OBSERVATION JOB AID ('Suckling'), reading the point from the left-hand column and then the corresponding point from the right-hand column. These points will not have been observed during the role play with the doll.

Make the following points:

- Look and listen for the baby taking slow deep sucks. This is an important sign that the baby is getting breastmilk and is suckling effectively. If a baby takes slow, deep, sucks then he is probably well attached.
- If the baby is taking quick shallow sucks all the time, this is a sign that the baby is not suckling effectively.
- If the baby is making smacking sounds as he sucks this is a sign that he is not well attached.
- Notice whether the baby releases the breast himself after the feed, and looks sleepy and satisfied.
- If a mother takes the baby off the breast before he has finished; for example, if he pauses between sucks, he may not get enough hindmilk.

Practice using the job aid: Assessing a breastfeed

- You will now see a series of slides of babies who are breastfeeding.
- You will practise recognising the signs of good and poor attachment that the slides show, and you will practise using the BREASTFEEDING OBSERVATION JOB AID. There are also some signs of good and poor positioning, but not in all the slides.
- You will not be able to see all of the signs in the slides. For example, you cannot see signs with movement in slides.
- Observe the signs that are clear, and do not worry about signs that you cannot see.
- However, when you see real mothers and babies, you should look for all the signs.
- As you look at each slide:
 - Decide which signs of good or poor attachment you see.
 - Decide if you think the baby's attachment is good or poor.
 - Notice if there are any signs of good or poor positioning shown.

Ask a different participant to come forward with the job aid as you show each of the slides.

As you show each slide, ask: *What do you think of this baby's attachment (and positioning, if signs are visible)?*

Give the participant at the screen a few moments to study the picture, and to describe and point to the signs that she sees. Then ask other participants to describe the signs that they see. Then point out any signs that they have missed. Try not to repeat signs that they have already mentioned.

Try to encourage participants to go through the four key points of attachment first and then to list points from the other sections of the BREASTFEEDING OBSERVATION JOB AID. This will help them to think more systematically as they assess a breastfeed.

Participants may describe more signs than are given in the text below. There are other signs in the slides, but most of them are not very helpful. Accept participants' observations, or gently correct them if they are incorrect, using the notes below.

Show **Slide 4/1**.



Signs that you can see clearly are:

- There is more areola above the baby's top lip than below the bottom lip.
- His mouth is quite wide open.

- His chin is almost touching the breast.
- In addition, the baby is close to the breast and facing it.
- The baby is breathing quite well without his mother holding her breast back with her finger.
- These signs show that the baby is well attached to the breast.

Show **Slide 4/2.**



Signs that you can see clearly are:

- His mouth points forwards.
- The baby's chin is not touching the breast.
- In addition, his cheeks are pulled in when suckling.
- The mother is holding her breast with the 'scissor hold.'
- This baby is poorly attached.

Show **Slide 4/3.**



Signs that you can see clearly are:

- There is as much areola below the baby's bottom lip as above his top lip.
- His mouth is not wide open and his lips point forwards.
- His chin is not touching her breast.

- The baby's body is not close to his mother's.
- This mother's areola is very large, so it is likely that you would see a lot of it even if her baby was well attached. However, you should see more above the baby's top lip than below the bottom lip.
- This baby is poorly attached to the breast.

Show **Slide 4/4**.



Signs that you can see clearly are:

- There is more areola above the baby's top lip than below the bottom lip.
- His mouth is quite wide open.
- His lower lip is turned in and not outwards.
- His chin is touching the breast.
- His lower lip is turned in, so he is not well attached, even if the other signs are not bad.
- In addition, his head and body are straight and he is facing the breast.
- This baby is not well attached.

Show **Slide 4/5**.



Signs that you can see clearly are:

- There is as much or more areola below the baby's mouth as above it.

- His mouth is not wide open, his lips point forward.
- His chin is not touching the breast.
- In addition the baby is twisted and is not close to the breast.
- This baby is poorly attached. He looks as though he is feeding from a bottle.

Show **Slide 4/6**.



Signs that you can see clearly are:

- There is a little areola above the baby's top lip.
- His chin is touching the breast.
- As the baby is very close to the breast it makes it difficult to see many other signs.
- This baby is well attached.
- Additional point: this is the same baby as in Slide 4/5 after the health worker has helped the mother to position the baby better. In a better position a baby can attach more easily.

After reviewing slides 4/1 to 4/6, pass out another copy of the job aid to participants (they should now have two). Explain that with the next two slides that you will show, the participants will do the following:

- You will look at the slides and practise filling in the BREASTFEEDING OBSERVATION JOB AID.
- If you see a sign in one of the slides, make an **X** in the box next to the sign. If you do not see a sign, leave the box empty.
- Concentrate on the sections on the baby's position and attachment. However, when you see mothers and babies in the practical sessions, you should fill in all sections of the form. Remember, you may not see all the signs with every baby.

Ask all the trainers to help. They should circulate and make sure that participants understand what to do. They should give individual feedback on participants' observations of the slides.

Show **Slide 4/7** for about 5 minutes, allowing time for the participants to fill out the job aid. Then move on to **Slide 4/8**. You will discuss their observations after they evaluate both slides.



Next, show **Slide 4/8**:



After each slide has been shown, ask participants to talk about both pictures and which boxes they checked, and if there were any that were confusing. Ask participants if they have any questions, and try to answer them.

Trainer's notes

If a mother says that breastfeeding is going well, but you see signs that suggest a possible difficulty, you must decide what to do. In the days soon after delivery, while the mother is still learning, you may want to offer to help her. Even if she is not aware of any difficulty now, you may prevent one occurring later.

If breastfeeding seems to be well established, you probably do not want to intervene immediately. It is usually more helpful to see her again soon, and follow the baby's growth, to make sure that breastfeeding continues to go well. Intervene only if a difficulty arises.

Session 5: Listening and learning counselling skills

Learning objectives

After completing this session participants will be able to:

- List the six listening and learning skills.
- Give an example of each skill.
- Demonstrate the appropriate use of the skills when counselling on IYCF.

Materials and preparation

- Flip charts, markers.
- Note cards with one of the following words written on each card (*happy, sad, excited, angry, worried, scared, bored/not interested*).
- Make copies of all the role plays in this session, and ask different participants to help you to present them. Explain what you want them to do before the session. One way to involve several participants is to use a different participant for each skill. For some demonstrations, the participants read out the words of the mother. For others, participants read out the words of the mother and the health worker.
- Discuss ahead of time Role-play 1 with the participant who will assist you. The participant has to sit and breastfeed a doll while you demonstrate different ways of talking to her. She can respond to your greetings, but need not say anything else. Discuss and agree with her before the demonstration what you can do to demonstrate 'appropriate touch' and 'inappropriate touch.'
- If it is difficult for participants to help with the role plays for some reason, another trainer can play the part of the mother. However, try to involve participants as much as possible.

Suggested time: 90 minutes

Session guide

Ask participants to define the word *counselling*. Encourage several participants to contribute and note their comments on a flip-chart sheet. Continue the discussion until you have a definition that everyone agrees on. An example is below, though encourage participants to agree on their own.

Counselling is a way of talking with people to try to understand how they feel and help them to decide what they think is best to do in their situation. Sometimes it can mean offering advice, sometimes it means giving information, and sometimes it can just be listening and showing support.

Share the following information:

- In this training we are talking about counselling mothers who are feeding infants and young children. They may be breastfeeding, giving complementary foods, or formula feeding. Although we talk about 'mothers' in this session, remember that these skills should be used when talking to other caregivers about infant feeding, for example fathers or grandmothers. Counselling mothers about feeding their infants is not the only situation in which counselling is useful. Counselling skills are useful when you talk with clients in other situations. You may also find them helpful with your family and friends, or your colleagues at work. Practise some of the techniques with them – you may find the result surprising and helpful.
- It may not be easy for a mother to talk about her feelings, especially if she is shy, and with someone whom she does not know well. You will need the skill to listen and to

make her feel that you are interested in her. This will encourage her to tell you more. She will be more likely to talk.

Explain that there are ways to make a mother or caregiver feel more comfortable when talking with them. We are going to talk about and practice using six different listening and learning skills to improve counselling skills.

Six listening and learning skills

- Skill 1. Use helpful nonverbal communication.
- Skill 2. Ask open questions.
- Skill 3. Use responses and gestures which show interest.
- Skill 4. Reflect back what the mother says.
- Skill 5. Empathise - show that you understand how she feels.
- Skill 6. Avoid words which sound judging.

Skill 1. Nonverbal communication

Ask for seven volunteers to come to the front of the room. One at a time, give each one a card and ask them to act out the word on the card without talking (pass one of the following cards to each volunteer: happy, sad, excited, angry, worried, scared, bored/not interested.) They can only move and use their facial expressions. Ask the other participants to guess what the word is.

Explain that how we communicate is more than just how we talk. It also includes all the ways we communicate without speaking. This is called nonverbal communication.

Nonverbal communication means showing your attitude through how you stand or sit, how you move your body, your facial expressions, everything except through speaking.

Explain to participants that you will demonstrate different types of nonverbal communication and ask them to identify the type of nonverbal communication you are demonstrating and say whether it helps communication or hinders it.

Role-play 1

Ask the participant you have prepared to help you to sit with a doll pretending to be a mother. She can respond to your greeting, but she should not say anything else. It is important that you say the **same** words, in the **same** tone of voice, with each demonstration. It is tempting to change your tone of voice to sound kinder in the demonstration which shows 'helpful nonverbal communication.' However, this will confuse the participants, who may start to comment on verbal instead of nonverbal communication. Demonstrate the way which helps sometimes first, and sometimes second, so that the participants who are observing cannot guess which is which just from the order of the demonstrations. Demonstrate 'appropriate touch' (socially acceptable) and 'inappropriate touch' (not socially acceptable) in the way that you agreed with the participant before the session.

With each of the five pairs of demonstrations below say **exactly the same** few words, and try to say them in the same way, for example: "Good morning, Limpho. How is feeding going for you and your baby?" After each pair, ask participants which helped and which hindered communication. Write what helped on a flip chart.

Role-play 1: Nonverbal communication			
	Hinders communication	Helps communication	Write on flip chart...
Round 1:	Stand with your	Sit so that your head is	<i>Be at the same level</i>

Posture	head higher than the other person's.	level with hers.	
Round 2: Eye contact	Look away at something else, or down at your notes.	Look at her and show that you are listening when she speaks.	<i>Look at the client.</i>
Round 3: Barriers	Sit behind a table, or write notes while you talk.	Move the chair to the other side of the table so that you are close and next to the mother.	<i>Remove barriers.</i>
Round 4: Taking time	Be in a hurry. Greet her quickly, show signs of impatience, look at your watch.	Make her feel that you have time. Sit down and greet her without hurrying; then just stay quietly smiling at her, watching her breastfeed, and waiting for her to answer.	<i>Take time.</i>
Round 5: Touch	Touch her in an inappropriate way. For example, touch her on the chin. <i>Important note: If you cannot demonstrate an inappropriate touch, simply demonstrate not touching.</i>	Touch the mother appropriately. For example, place your hand on her shoulder.	<i>Touch appropriately.</i>

Ask: What kinds of touch are appropriate and inappropriate in this situation in this community? Does touch make a mother feel that you care about her? For a man, if it is not appropriate to touch the woman, is it appropriate to touch the baby?

Wait for a few replies and then continue. Review the notes on the flip chart and then explain:

- Our nonverbal communication often demonstrates to a mother or caregiver our approval or disapproval of a situation. We should be careful to avoid allowing our own views on certain subjects, e.g., religion, to be expressed in a counselling situation where it might appear as though we are judging a mother.

Explain that the next skills deal with what we say to mothers, in other words 'verbal communication.' Remember that the tone of our voice is important during verbal communication. We should always try to sound gentle and kind when talking to mothers. During counselling we are trying to find out how people feel. We need to be interested and to probe beneath the surface if we wish to learn their real worries and their concerns.

Skill 2: Ask open questions

Explain the skill:

- To start a discussion with a mother, or to take a history from her, you need to ask some questions.
- It is important to ask questions in a way that encourages a mother to talk to you and to give you information. This saves you from asking too many questions, and enables you to learn more in the time available.
- Open questions are usually the most helpful. To answer them, a mother must give you some information.

- Open questions usually start with 'How? What? When? Where? Why? Who?' For example, "How are you feeding your baby?"
- Closed questions are usually less helpful and do not encourage discussion. They tell a mother the answer that you expect, and she can answer them with a 'Yes' or 'No.' Closed questions usually start with words like 'Are you?' or 'Did he?' or 'Has he?' or 'Does she?' For example: "Did you breastfeed your last baby?" If a mother says 'Yes' to this question, you still do not know if she breastfed exclusively, or if she also gave some artificial feeds. If you continue to ask questions to which the mother can only answer 'yes' or 'no,' you can become quite frustrated, and think that the mother is not willing to talk, or that she is not telling the truth.

Explain that you will read out a closed question and you would like for them to make it into an open question. Read each question one at a time and allow participants to discuss and agree on a better way to ask it. Suggestions are in brackets. Do not read these aloud.

Closed question:

Does your baby sleep with you?
 Are you often away from your baby?
 Does Limpho eat porridge?
 Do you give fruit to your child often?

Suggested open question:

[Where does your baby sleep?]
 [How much time do you spend away from your baby?]
 [What kinds of foods does Limpho like to eat?]
 [How often does your child eat some fruit?]

Demonstrate how to ask questions by playing the role of a health worker and a participant playing the role of the mother. After each demonstration, comment on what the health worker learnt.

Introduce the role plays by making these points: We will now see this skill being demonstrated in two role plays. The health worker is talking to a mother who has a young baby whom she is breastfeeding.

Role-play 2: Using closed and open questions

Health worker: 'Good morning, Lerato. I am (name), the nurse. Is (child's name) well?'

Mother: 'Yes, thank you.'

Health worker: 'Are you breastfeeding him?'

Mother: 'Yes.'

Health worker: 'Are you having any difficulties?'

Mother: 'No.'

Health worker: 'Is he breastfeeding very often?'

Mother: 'Yes.'

Ask: *What did the health worker learn from this mother?*

Allow participants to discuss. They should mention that the health worker got 'yes' and 'no' for answers and didn't learn much. It can be difficult to know what to say next.

Health worker: 'Good morning, (name). I am (name), the nurse. How is (child's name)?'

Mother: 'He is well, and he is very hungry.'

Health worker: 'Tell me, how are you feeding him?'

Mother: 'He is breastfeeding. I just have to give him one bottle feed in the evening.'

Health worker: 'What made you decide to do that?'

Mother: 'He wants to feed too much at that time, so I thought that my milk is not enough.'

Ask: *What did the health worker learn from this mother?*

Allow participants to discuss. They should mention that the health worker asked open questions. The mother could not answer with a 'yes' or a 'no,' and she had to give some information. The health worker learnt much more.

Explain how to use questions to start and to continue a conversation:

- A very general open question is useful to start a conversation. This gives the mother an opportunity to say what is important to her. For example, you might ask a mother of a 9-month-old baby: 'How is your child feeding?'
- Sometimes a general question like this receives an answer such as, 'Oh, very well thank you.'"So then you need to ask questions to continue the conversation. For this, more specific questions are helpful. For example: 'Can you tell me what your child ate for the main meal yesterday?' Sometimes you might need to ask a closed question. For example: 'Did your child have any fruit yesterday?' After you have received an answer to this question try to follow-up with another open question.

Divide participants into pairs to practise asking effective questions. Each pair will role play a scenario with a health worker talking to a mother who has a young baby whom she is breastfeeding.

Role-play scenario: One person is the health worker, one person is the mother. The mother of a 2-month-old is breastfeeding. Her mother-in-law watches the baby sometimes during the day when she is doing her work around the house. The mother expresses her breastmilk, but the mother-in-law is also giving water.

When they are done with the role play, bring the group back together and discuss the results of the practice before moving on.

Skill 3: Showing interest

Explain the skill:

- If you want a mother to continue talking, you must show that you are listening, and that you are interested in what she is saying.

Ask: *What are common things we do to show that we are listening and interested?*

Encourage participants to discuss. Write their comments on the flip chart. Participants may mention: look at her, nod and smile, say 'Aha', 'Mmm', etc.

Role-play 3: Using responses and gestures to show interest

Ask for two volunteers to demonstrate the skill; one will play the part of the mother, the other will play the part of the health worker. Introduce the role play by saying: The health worker is talking to a mother who has a 1-year-old child.

Health worker: 'Good morning, (name). How is (child's name) now that he has started solids?'

Mother: 'Good morning. He's fine, I think.'

Health worker: 'Mmm.' (nods, smiles.)

Mother: 'Well, I was a bit worried the other day, because he vomited.'

Health worker: 'Oh dear!' (raises eyebrows, looks interested).

Mother: 'I wondered if it was something in the stew that I gave him.'

Health worker: 'Aha!' (nods sympathetically).

Ask: *How did the health worker encourage the mother to talk?* Allow participants to discuss. They should mention that the health worker asked a question to start the conversation. Then she encouraged the mother to continue talking with responses and gestures.

Skill 4: Reflect back what the mother says

Health workers sometimes ask mothers a lot of factual questions. However, the answers to factual questions are often not helpful. The mother may say less and less in reply to each question. For example, if a mother says: 'My baby was crying too much last night,' you might want to ask: 'How many times did he wake up?' But the answer is not helpful. It is more useful to repeat back or reflect what a mother says. This is another way to show you are listening and encourages the mother or caregiver to continue talking and to say what is important to her. It is best to say it in a slightly different way, so that it does not sound as though you are copying her. For example, if a mother says: 'I don't know what to feed my child, she refuses everything.' You could reflect back by saying: 'Your child is refusing all the food you offer her?'

Role-play 4: asking for facts versus reflecting back

Ask for two volunteers to demonstrate the skill; one will play the part of the mother, the other will play the part of the health worker. Introduce the role play by saying: The health worker is talking to a mother who has a 6-week-old baby whom she is breastfeeding.

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: 'He wants to feed too much—he is taking my breast all the time!'

Health worker: 'About how often would you say?'

Mother: 'About every half an hour.'

Health worker: 'Does he want to suck at night too?'

Mother: 'Yes.'

Ask: What did the health worker learn from the mother?

Allow participants to discuss. They should mention that the health worker asks factual questions and the mother gives less and less information.

The same volunteers now act out the same scenario, but in a different way:

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: 'He wants to feed too much—he is taking my breast all the time!'

Health worker: '(Child's name) is feeding very often?'

Mother: 'Yes. This week he is so hungry. I think that my milk is drying up.'

Health worker: 'He seems more hungry this week?'

Mother: 'Yes, and my sister is telling me that I should give him some bottle feeds as well.'

Health worker: 'Your sister says that he needs something more?'

Mother: 'Yes. Which formula is best?'

Ask: What did the health worker learn from the mother?

Allow participants to discuss. They should mention that the health worker reflected back what the mother said, so the mother gave more information.

Skill 5: Empathy—Show that you understand how she feels

Ask participants to define the word empathy. Write their comments on a flip chart. Their definition should be similar to showing that you understand someone's feelings from his/her point of view.

Explain that:

- Empathy is a difficult skill to learn. It is difficult for people to talk about feelings. It is easier to talk about facts.
- When a mother says something which shows how she feels, it is helpful to respond in a way which shows that you heard what she said, and that you understand her feelings from her point of view. For example, if a mother says: 'My baby wants to feed very often and it makes me feel so tired!' you respond to what she *feels*, perhaps like this: 'You are feeling very tired all the time then?'
- Empathy is different from sympathy. When you sympathise you are sorry for a person, but you look at it from **your** point of view. If you sympathise, you might say: 'Oh, I know how you feel. My baby wanted to feed often too, and I felt exhausted.' This brings the attention back to you, and does not make the mother feel that you understand her.
- You could reflect back what the mother says about the baby. For example: 'He wants to feed very often?' But this reflects back what the mother said about the baby's behaviour, and it misses what she said about how she feels. She feels tired. So empathy is more than reflecting back what a mother says to you.
- It is also helpful to empathise with a mother's good feelings. Empathy is not only to show that you understand her bad feelings.

Ask for two volunteers to demonstrate the skill: one will play the part of the mother, the other will play the part of the health worker. Introduce the role play by saying: The health worker is talking to a mother of a 10-month-old child. As you watch, look for empathy – is the health worker showing she understands the mother's point of view?

Role-play 5: Sympathy versus empathy

Ask for two volunteers to demonstrate the skill: one will play the part of the mother, the other will play the part of the health worker. Introduce the role play by saying: The health worker is talking to a mother who has a 6-week-old baby whom she is breastfeeding.

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: '(Child's name) is not feeding well, I am worried he is ill.'

Health worker: 'I understand how you feel. When my child was ill, I was so worried. I know exactly how you feel.'

Mother: 'What was wrong with your child?'

Ask: Do you think the health worker showed sympathy or empathy?

Participants should mention that in this case the focus moved from the mother to the health worker. This was sympathy, not empathy. Let us hear this again with the focus on the mother and empathising with her feelings.

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: 'He is not feeding well, I am worried he is ill.'

Health worker: 'You are worried about him?'

Mother: 'Yes, some of the other children in the village are ill and I am frightened he may have the same illness.'

Health worker: 'It must be very frightening for you.'

Ask: Do you think the health worker showed sympathy or empathy?

Participants should mention that here the health worker used the skill of empathy twice. She said 'You are worried about him?' and 'It must be very frightening for you.' In this second version the mother and her feelings are the focus of the conversation.

Now let us see two more demonstrations. This time the mother is HIV positive and pregnant and is coming to talk to the health worker about how she will feed her baby after birth. Again listen for empathy – is the health worker showing she understands the mother's point of view?

Role-play 6: Sympathy versus empathy

Round 1

Health worker: 'Good morning, (name). You wanted to talk to me about something?' *Smiles.*

Mother: 'I tested for HIV last week and am positive. I am worried about my baby.'

Health Worker: 'Yes, I know how you feel. My sister has HIV.'

Round 2

Health worker: 'Good morning, (name). You wanted to talk to me about something?' *Smiles.*

Mother: 'I tested for HIV last week and am positive. I am worried about my baby.'

Health Worker: 'You're really worried about what's going to happen.'

Mother: 'Yes I am. I don't know what I should do.'

Ask: What was the difference between these two demonstrations?

Participants should mention that in the second version the health worker concentrated on the mother's concerns and worries. The health worker responded by saying, 'You're really worried about what's going to happen.' This was empathy.

Ask the two participants who have prepared to give Role-play 7 to come forward.

Introduce these role plays by making these points: Now we will see another demonstration. Watch to see if the health worker is really listening to the mother. Explain that the health worker is talking to a mother of a 7-month-old child who has recently started complementary feeds.

Role-play 7: Asking facts versus empathy

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: 'He is refusing to breastfeed since he started eating porridge and other foods last week – he just pulls away from me and doesn't want me!'

Health worker: 'How old is (child's name) now?'

Mother: 'He is 7 months old.'

Health worker: 'And how much porridge does he eat during a day?'

Ask: What did the health worker learn about the mother's feelings?

Participants should mention that the health worker asked about facts and ignored the mother's feelings. The information the health worker learnt did not help the health worker to assist the mother with her worry that the baby won't breastfeed since other foods were offered. The health worker did not show empathy.

Health worker: 'Good morning, (name). How are you and (child's name) today?'

Mother: 'He is refusing to breastfeed since he started eating porridge and other foods last week – he just pulls away from me and doesn't want me!'

Health worker: 'It's very upsetting when your baby doesn't want to breastfeed.'

Mother: 'Yes, I feel so rejected.'

Ask: *What did the health worker learn about the mother's feelings this time?*

Participants should mention that in this second version, the mother's feelings are listened to at the beginning. Then the health worker is able to focus on what the mother sees as the problem.

Skill 6: Avoid words which sound judging

Ask: *Many women are uncomfortable talking with health workers because they are afraid they will be judged. What are examples of ways that health workers may be judgemental towards mothers? Encourage participants to share experiences.*

Explain that the words we use when talking with mothers and their families are important. 'Judging words' are words like: right, wrong, well, badly, good, enough, properly. If you use judging words when you talk to a mother about feeding, especially when you ask questions, you may make her feel that she is wrong, or that there is something wrong with the baby. A breastfeeding mother may feel there is something wrong with her breastmilk.

For example:

- Do not say: 'Are you feeding your child **properly**?' Instead, say: 'How are you feeding your child?'
- Do not say: 'Do you give her **enough** milk?' Instead, say: 'How often do you give your child milk?'

Ask for two volunteers to demonstrate the skill; one will play the part of the mother, the other will play the part of the health worker. Introduce the role play by saying: We will see a demonstration of this skill. The health worker is talking to a mother of a 5-month-old baby. As you watch, listen for judging words.

Role-play 8: Using judging words versus avoiding judging words

Health worker: 'Good morning. Is (name) breastfeeding **normally**?'

Mother: 'Well - I think so.'

Health worker: 'Do you think that you have **enough** breastmilk for him?'

Mother: 'I don't know... I hope so, but maybe not ...' (She looks worried.)

Health worker: 'Has he gained weight **well** this month?'

Mother: 'I don't know...'

Health worker: 'May I see his growth chart?'

Ask: *What did the health worker learn about the mother's feelings? Participants should mention that the health worker is not learning anything useful, but is making the mother very worried.*

Health worker: 'Good morning. How is breastfeeding going for you and (child's name)?'

Mother: 'It's going very well. I haven't needed to give him anything else.'

Health worker: 'How is his weight? Can I see his growth chart?'

Mother: 'Nurse said that he gained more than half a kilo this month. I was pleased.'

Health worker: 'He is obviously getting all the breastmilk that he needs.'

Ask: *What did the health worker learn about the mother's feelings?*

Participants should mention that this time the health worker learnt what she needed to know without making the mother worried. The health worker used open questions to avoid using judging words.

Make these additional points:

- Mothers may use judging words about their own situation. You may sometimes need to use them yourself, especially the positive ones, when you are building a mother's confidence. But practise avoiding them as much as possible, unless there is a really important reason to use one.
- You may have noticed that judging questions are often closed questions. Using open questions often helps to avoid using a judging word.

On a flip chart, display the following and explain that these are different categories for judging words. Ask participants to give the Sesotho translation to these words and write them next to the category.

Well good bad badly	Normal correct proper right wrong	Enough adequate inadequate satisfied plenty of sufficient	Problem fail failure succeed success
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For each word, read out the Judging question below. Then ask participants to think of how they could ask this question in a non-judging way (a similar question that does not use the judging word). Allow several participants to share their suggestions.

English	Sesotho	Judging question	Non-judging question
<ul style="list-style-type: none"> • Well • Normal • Enough • Problem 	<ul style="list-style-type: none"> • Hantle • Nepahetseng • Lekaneng • Bothata 	<ul style="list-style-type: none"> • Does he suckle well? • Are his stools normal? • Is he gaining enough weight? • Do you have any problems breastfeeding? 	<ul style="list-style-type: none"> • How is he suckling? • What are his stools like? • How is your baby growing? • How is breastfeeding going for you?

Remind them that judging questions are often closed questions, and that they can often avoid using a judging word if they use an open question.

Ask: *In addition to judging words, are there ways that people show judgement through nonverbal communication?* Allow participants to discuss. They may mention staring in shock or shaking their head disapprovingly. Explain that avoiding judgement is important in both verbal and nonverbal communication.

Review the list of counselling skills that have been discussed and demonstrated in this session.

Ask:

- *Are there any additional skills that counsellors need?*
- *Do you have any questions about listening and learning?*

Session 6: Practical Session 1—Using counselling skills to assess a breastfeed

Learning objectives

After completing this session participants will be able to:

- Demonstrate appropriate listening and learning skills when counselling a mother on feeding her infant.
- Assess a breastfeed using the BREASTFEEDING OBSERVATION JOB AID.
- Demonstrate appropriate confidence and support skills when counselling a mother on feeding her infant.
- Demonstrate how to help a mother to position and attach her baby at the breast.

Materials and preparation

- Study the instructions in the following pages, and ask all trainers who will lead groups to study the instructions also. It is important that all trainers are clear about how to conduct the clinical practice.
- Make sure that you know where the practical session will be held, and where each trainer should take her group. If you did not do so in a preparatory week, visit the wards or clinic where you will go, introduce yourself to the staff members in charge, and make sure that they are prepared for the session.
- Make sure that there are copies (and extras available) of the following sheets for each participant and trainer:
 - BREASTFEEDING OBSERVATION JOB AID (two for each participant).
 - Counselling Skills Checklist.
- Make sure that there are copies of the PRACTICAL DISCUSSION CHECKLIST for each trainer.
- Before leaving for the visit, one trainer should lead a preparatory session with all participants and the other trainers together. If you have to travel to another facility for the practical session, hold the preparatory session in the classroom before you leave. If necessary, this can take place on the evening or the morning before the visit.

Suggested time: 120 minutes plus transportation

Session guide

Preparation for the practical session

Before leaving for the visit, one trainer leads a preparatory session with all participants and the other trainers together. If you have to travel to another facility for the practical session, hold the preparatory session in the classroom before you leave. If necessary, this can take place on the evening or the morning before.

Explain the following to the participants:

- You are going to practise the following skills that we have learnt in the previous sessions:
 - Assessing a breastfeed with mothers.
 - Listening and learning skills.
 - Building confidence and giving support.
 - Positioning and attachment.
- It is important that you all practise helping a mother to position her baby at the breast, or to overcome any other difficulty. Often you will find that babies are sleepy. In this case you could say to the mother something like: 'I see your baby seems to be

sleepy now, but can we just go through the way to hold him when he is ready?' Then go through the four key points of positioning with the mother. If you do this, quite a few babies will wake up and want another feed when their nose is opposite the nipple.

- You will need to take with you one copy of the Counselling Skills Checklist, two copies of the BREASTFEEDING OBSERVATION JOB AID, and a pencil and paper to make notes.
- You will work in groups of three to four with one trainer.

Here are the instructions that will guide the participants while in the ward. Explain this to them, and answer any questions that they may have ahead of time.

Steps to follow in the ward:

- Take turns talking with a mother whilst the other members of the group observe.
- Introduce yourself to the mother and ask her permission to talk with her. Introduce the group and say they are interested in infant feeding. If a mother is not feeding, ask the mother to give a feed in the normal way at any time that her baby seems ready.
- Try to find a chair or a stool to sit on.
- Practise as many of the listening and learning skills as possible. Try to get the mother to tell you about herself, her situation, and her baby. You can talk about ordinary life, not only about breastfeeding.
- The other participants should stand quietly in the background. Try to be as still and quiet as possible.
- Participants observing should note general observations of the mother and baby. Notice for example: does she look happy? Does she have formula or a feeding bottle with her?
- Participants observing should note general observations of the conversation between the mother and the participant.
 - Notice, for example: Who does most of the talking? Does the participant ask open questions? Does the mother talk freely, and seem to enjoy it?
- Make specific observations of the participant's listening and learning skills as they speak to the mother.
- Mark an **X** on your Counselling Skills Checklist when she uses a skill, to help you to remember for the discussion. Notice if she uses helpful nonverbal communication.
- Notice if the participant makes a mistake, for example, if she uses a judging word, or if she asks a lot of questions to which the mother says 'yes' and 'no.'
- When a mother breastfeeds, observe the feed using the BREASTFEEDING OBSERVATION JOB AID and put ticks in the boxes.
- Remember that you are not helping the mother at this point. If a mother needs help your trainer will take the opportunity to demonstrate how to help the mother to you.
- When you have finished thank the mother.

Warn participants about the following MISTAKES TO AVOID:

- Do not say that you are interested in breastfeeding. The mother's behaviour may change. She may not feel free to talk about formula feeding.
- You should say that you are interested in 'infant feeding' or in 'how babies feed.'
- Do not give a mother help or advice.
- If a mother seems to need help, you should inform your trainer and a staff member from the ward or clinic.
- Be careful that the forms do not become a barrier. The participant who talks to the mother should not make notes while she is talking. She needs to refer to the forms to remind her what to do, but if she wants to write, she should do so afterwards. The participants who are observing can make notes.

After the site visit is completed, return to the training site and conduct a debriefing session:

- Teach about mothers who need help.
 - Encourage participants to observe health care practices while they are in a ward or clinic by noticing:
 - If babies room-in with their mothers.
 - Whether or not babies are given formula, or glucose water.
 - Whether or not feeding bottles are used.
 - The presence or absence of advertisements for baby milk.
 - Whether sick mothers and babies are admitted to hospital together.
 - How low-birthweight babies are fed.
 - If the child eats any food or drinks during the session.
 - Whether the child was given a bottle or soother / pacifier while waiting.
 - What was the interaction like between the mother and the child.
 - Any posters or other information on feeding in the area.
 - At the end of the practical session ask participants if they have any questions.
-

Trainer's notes—Tips for the trainer

- Take your group to the ward or clinic.
- Introduce yourself and your group to the staff member in charge.
- Ask which mothers and babies it would be appropriate to talk to, and where they are.
- Try to find a mother and baby who are breastfeeding, or a mother who thinks that her baby may want to feed soon. If this is not possible, talk to any mother.
- Try to make sure that each participant talks to at least one mother.
- Each time the participants have finished a counselling session with a mother, take them into another room or a corner to discuss your observations.
- Guide the participant who is practising:
 - Keep in the background, and try to let the participant work without too much interference.
 - You do not need to correct every mistake that she makes immediately. If possible wait until the discussion afterwards. Then you can praise what she did well and talk about anything she did not do right.
 - However, if she is making a lot of mistakes, or not making any progress, then you should help her. Try to help in a way that does not make her embarrassed in front of the mother and the group.
 - Also, if she starts to help or advise the mother, remind her that she should not do that during this practical session.
 - Additionally, if a mother and baby show something important that the participants may not have observed, you can quietly draw their attention to it.
 - You need to judge as participants work what will best help them to learn.
 - Use your confidence and support skills to correct participants and to help them to develop confidence in their own clinical and counselling skills.
- Discuss the participant's performance:
 - Take the group away from the mother, and discuss what they observed.
 - Use the PRACTICAL DISCUSSION CHECKLIST to help you to lead the discussion.
 - Ask the 'General questions,' and then ask the specific questions about 'Listening and learning' and about 'Assessing a breastfeed.'

- Ask the 'Confidence and support' questions in later practical sessions.
- Go through the COUNSELLING SKILLS CHECKLIST, and discuss how the participant practised them. First ask the participant herself to say how well she thinks she did. Then ask the other participants. Try to encourage the participants to use their counselling skills in the way they give feedback to other participants.
- Go through the BREASTFEEDING OBSERVATION JOB AID, and discuss how many of the signs the group noticed. Ask them to decide if the baby was well or poorly positioned and attached.
- Teach about mothers who need help:
 - If at any time there is a mother who needs help, or who illustrates a particular situation, take the opportunity to teach about it.
 - Ask a participant who identifies a mother needing help to report it to you. Ask the staff of the ward or clinic if they would like you to help the mother. If they agree, give the mother the necessary help, together with the participant.
 - Ask the staff to be present if possible, and make sure that they understand what you suggest to the mother so that they can provide follow-up.
 - Explain and demonstrate the situation to the other participants. This may take you ahead of what has been covered so far in the course, but it is important not to miss a good learning opportunity.
 - If possible, suggest that participants revisit the mothers whom they talked to, to follow them up the next day
- Encourage participants to observe health care practices while they are in a ward or clinic by noticing:
 - If babies room-in with their mothers.
 - Whether or not babies are given formula, or glucose water.
 - Whether or not feeding bottles are used.
 - The presence or absence of advertisements for baby milk.
 - Whether sick mothers and babies are admitted to hospital together.
 - How low-birthweight babies are fed.
 - If the child eats any food or drinks during the session.
 - Whether the child was given a bottle or soother / pacifier while waiting.
 - What was the interaction like between the mother and the child.
 - Any posters or other information on feeding in the area.
- Explain that participants should not comment on their observations, or show any disapproval, while in the health facility. They should wait until the trainer invites them to comment privately, or in the classroom.
- At the end of the practical session ask participants if they have any questions.

PRACTICAL DISCUSSION CHECKLIST

Practical skills are best developed by introducing and demonstrating the skills, observing participants as they practise the skills, and giving feedback to participants on how well they performed. Feedback should include praising participants for things done well, and giving gentle suggestions for how to overcome difficulties. Use the checklist below to help guide your feedback discussions.

Questions to ask after each participant completes her turn practising (either in the clinic or using counselling stories):

To the participant who practised:

- What did you do well?
- What difficulties did you have?
- What would you do differently in the future?

To the participants who observed:

- What did the participant do well?
- What difficulties did you observe?

Listening and learning skills (give feedback on the use of these skills in all practical sessions):

- Which listening and learning skills did you use?
- Was the mother willing to talk?
- Did the mother ask any questions? How did you respond?
- Did you empathise with the mother? Give an example.

Confidence and support skills (give feedback on the use of these skills during practical sessions after Session 10):

- Which confidence and support skills were used? (Check especially for praise and for two relevant suggestions.)
- Which skills were most difficult to use?
- What was the mother's response to your suggestions?

Key messages for complementary feeding (give feedback on the use of these skills in practical Session 32):

- Which messages for complementary feeding did you use? (Check especially for 'only a few relevant messages.')
- What was the mother's response to your suggestions?

General questions to ask at the end of each practical session (in the clinic or using counselling stories):

- What special difficulties or situations helped you to learn?
- What was the most interesting thing that you learned from this practical session?

Counselling Skills Checklist

Listening and learning skills:

- Use helpful non-verbal communication.
- Ask open questions.
- Use responses and gestures that show interest.
- Reflect back what the mother/caregiver says.
- Empathise—show that you understand how she/he feels.
- Avoid words that sound judging.

Building confidence and giving support skills:

- Accept what the caregiver thinks and feels.
- Recognise and praise what a mother/caregiver and child are doing right.
- Give practical help
- Give relevant information.
- Use simple language.
- Make one or two suggestions, not commands.

Session 7: Positioning and attachment

Learning objectives

After completing this session participants will be able to:

- Explain the four key points of positioning.
- Describe how a mother should support her breast for feeding.
- Demonstrate the main positions—sitting, lying, underarm, and across.
- Help a mother to position her baby at the breast, using the four key points in different positions.

Materials and preparation

- Make sure that you have **Slide 7/1**.
- Model breast (see instructions in the introduction on 'How to make a model breast').
- Copies of the BREASTFEEDING OBSERVATION JOB AID and HOW TO HELP A MOTHER TO POSITION HER BABY for each participant.
- Make sure that participants have copies of the infant feeding counselling cards.
- The demonstrations in this session need a lot of practice if they are to be effective. One trainer leads the session. Another trainer helps with the demonstration of helping a mother who is sitting and lying.
- On the day before the demonstration:
 - Ask a trainer to help you with the demonstrations. Go through each demonstration with the trainer.
 - Explain that you want her to play a mother who needs help to position her baby.
 - Ask her to decide on a name for herself and her 'baby.' She can use her real name if she likes.
 - Read through the instructions together and practice each demonstration.
- On the day of the demonstration:
 - Arrange chairs and a footstool to demonstrate breastfeeding while sitting down.
 - Arrange a mat on the floor in order to demonstrate breastfeeding lying down.
 - You will need a doll and a model breast for both demonstrations of common mistakes in positioning.

Suggested time: 90 minutes

Session guide

Introduction

Pass out copies of the BREASTFEEDING OBSERVATION JOB AID and explain the following:

- We are going to learn how to position a baby at the breast.
- We will be using the four key points from the section on 'Baby's Position' on the BREASTFEEDING OBSERVATION JOB AID.
- There are several steps to follow when helping a mother to position her baby at the breast.

Pass out copies of HOW TO HELP A MOTHER TO POSITION HER BABY.

HOW TO HELP A MOTHER TO POSITION HER BABY

- Greet the mother and ask how breastfeeding is going.
- Assess a breastfeed.
- Explain what might help, and ask if she would like you to show her.
- Make sure that she is comfortable and relaxed.
- Sit down yourself in a comfortable, convenient position.
- Explain how to hold her baby, and show her if necessary.

The **four key points** are:

- Baby's head and body should be in line.
- Baby held close to mother's body.
- Baby's whole body supported.
- Baby approaches breast, nose to nipple.

Show her how to support her breast:

- With her fingers against her chest wall below her breast.
- With her first finger supporting the breast.
- With her thumb above.
- Her fingers should not be too near the nipple.

Explain or show her how to help the baby to attach:

- Touch her baby's lips with her nipple.
- Wait until her baby's mouth is opening wide.
- Move her baby quickly onto her breast, aiming his lower lip below the nipple.
- Notice how she responds and ask her how her baby's suckling feels.
- Look for signs of good attachment. If the attachment is not good, try again.
- Let the mother do as much as possible herself. Be careful not to 'take over' from her.
- Explain what you want her to do. If possible, demonstrate on your own body to show her how.
- Make sure that she understands what you do so that she can do it herself. Your aim is to help her to position her own baby. It does not help if you can get a baby to suckle, if the mother cannot.

Explain the following:

- Always assess a mother breastfeeding before you help her, using the points from the BREASTFEEDING OBSERVATION JOB AID.
- In Session 4 we talked about the importance of observing a mother interacting with her baby and breastfeeding. Take time to see what she does, so that you can understand her situation clearly. Do not rush to make her do something different.
- Give a mother help only if she has difficulty. Some mothers and babies breastfeed satisfactorily in positions that would make difficulties for others.
- This is especially true with babies more than about 2 months old. There is no point trying to change a baby's position if he is getting breastmilk effectively and his mother is comfortable.

Demonstration 1: How to help a mother who is sitting

You will demonstrate how to help a mother who is sitting. Participants will follow along by going through the points in the box HOW TO HELP A MOTHER TO POSITION HER BABY. You will demonstrate each of the points in the box, one at a time. When you have demonstrated a point, make sure that it is clear to the participants before you move to the next point.

Review these instructions with the other trainer before the day of the training:

- Ask one of the other trainers to be a mother.
- The trainer will sit holding the doll in the common way, with the doll across the front. You will greet her and ask how breastfeeding is going, and she will say that it is painful and that she has sore nipples.
- You will ask her to 'breastfeed' the doll, while you observe. She will hold it in a poor position: loosely, supporting only its head, with its body away from hers, so that she has to lean forward to get her breast to its mouth. She will pretend that breastfeeding is painful.
- You will then help her to sit more comfortably and to improve the doll's position. When the position is better, she should say 'Oh! That feels better.' and look happier. She can rub the other breast, to show that now she is feeling the ejection reflex.
- At each step, you will instruct the participants on how to use the BREASTFEEDING OBSERVATION JOB AID and the form HOW TO HELP A MOTHER TO POSITION HER BABY.

Demonstration 1

Step 1: Greet the mother and ask how breastfeeding is going:

- When you have greeted the 'mother' and asked how breastfeeding is going, the 'mother' should respond by saying that breastfeeding is painful.

Step 2: Assess a breastfeed:

- Ask if you may see how (child's name) breastfeeds, and ask the 'mother' to put him to her breast in the usual way. She holds him loosely, away from her body, with his neck twisted, as you practised. Observe her breastfeeding for a few minutes.

Step 3: Explain what might help and ask if she would like you to show her:

- Say something encouraging like: 'He really wants your breastmilk, doesn't he?'
- Then say: 'Breastfeeding might be less painful if (child's name) took a larger mouthful of breast when he suckles. Would you like me to show you how?' If she agrees, you can start to help her.

Step 4: Make sure that she is comfortable and relaxed:

- Make sure the 'mother' is sitting in a comfortable and relaxed position—as you decided when you practised this demonstration beforehand.
- Sit down yourself, so that you are also comfortable and relaxed, and in a convenient position to help. You cannot help a mother satisfactorily if you are in an awkward or uncomfortable position yourself or if you are bending over her.
- Demonstrate the following points to the participants using a doll, a high chair, a low chair, and a stool. Make sure the following points are clear:
 - A low seat is usually best, if possible one that supports the 'mother's' back.
 - If the seat is rather high, find a stool for her to put her feet onto. However, be careful not to make her knees so high that her baby is too high for her breast.
 - If she is sitting on the floor, make sure that her back is supported.
 - If she supports her baby on her knee, help her to hold the baby high enough so that she does not lean forward to put him onto her breast.

Step 5: Explain how to hold her baby, and show her if necessary:

- Demonstrate how to help the mother to position her baby, making sure that the four key points of positioning are clear to the mother and to the participants. These four key points are listed on the BREASTFEED OBSERVATION JOB AID.

- When you have finished helping the ‘mother’ to position her baby, make these points to the participants, using a doll to demonstrate:
 1. **Baby’s head and body in line:** A baby cannot suckle or swallow easily if his head is twisted or bent.
 2. **Baby held close to mother’s body:** A baby cannot attach well to the breast if he is far away from it. The baby’s whole body should almost face his mother’s body. He should be turned away just enough to be able to look at her face. This is the best position for him to take the breast, because most nipples point down slightly. If he faces his mother completely, he may fall off the breast.
 3. **Baby supported:** The baby’s whole body should be supported with the mother’s arm along the baby’s back. This is particularly important for newborns and young babies. For older babies, support of the upper part of the body is usually enough. A mother needs to be careful about using the hand of the same arm, which supports her baby’s back, to hold his bottom. Holding his bottom may result in her pulling him too far out to the side, so that his head is in the crook (bend) of her arm. He then has to bend his head forward to reach the nipple, which makes it difficult for him to suckle.
 4. **Baby approaches breast, nose to nipple:** We will talk about this a little later when we discuss how to help a baby to attach to the breast.
- Try not to touch the mother or baby if possible. But if you need to touch them to show the mother what to do, put your hand over her hand or arm, so that you hold the baby through her.

Step 6: Show her how to support her breast:

- Demonstrate how to help the mother to support her breast.
- When you have finished helping the ‘mother’ to support her breast, make these points to the participants, demonstrating on your own body or on a model breast:
 - It is important to show a mother how to support her breast with her hand to offer it to her baby.
 - If she has small and high breasts, she may not need to support them.
 - She should place her fingers flat on her chest wall under her breast, so that her first finger forms a support at the base of the breast.
 - She can use her thumb to press the top of her breast slightly. This can improve the shape of the breast so that it is easier for her baby to attach well.
 - She should not hold her breast too near to the nipple.
 - Holding the breast too near the nipple makes it difficult for a baby to attach and suckle effectively. The ‘scissor’ hold can block milk flow.
 - Demonstrate to participants these ways of holding a breast, and explain that they make it difficult for a baby to attach: holding the breast with the fingers and thumb close to the areola, pinching up the nipple or areola between your thumb and fingers, and trying to push the nipple into a baby’s mouth while holding the breast in the ‘scissor’ hold—index finger above and middle finger below the nipple.

Step 7: Explain or show her how to help the baby to attach:

- Demonstrate how to help the ‘mother’ to attach her baby.
- When you have finished helping the ‘mother’ to attach her baby, make these points to the participants, using a doll and your own body or a model breast:
 - Explain that she first holds the baby with his nose opposite her nipple, so that he approaches the breast from underneath the nipple.
 - Explain how she should touch her baby’s lips with her nipple, so that he opens his mouth, puts out his tongue, and reaches up.
 - Explain that she should wait until her baby’s mouth is opening wide before she moves him onto her breast. His mouth needs to be wide open to take a large mouthful of breast.

- It is important to use the baby's reflexes, so that he opens his mouth wide to take the breast himself. You cannot force a baby to suckle, and she should not try to open his mouth by pulling his chin down.
- Explain or show her how to quickly move her baby to her breast when he is opening his mouth wide.
- She should bring her baby to her breast. She should not move herself or her breast to her baby.
- As she brings the baby to her breast, she should aim her baby's lower lip below her nipple, with his nose opposite the nipple, so that the nipple aims towards the baby's palate, his tongue goes under the areola, and his chin will touch her breast.
- Hold the baby at the back of his shoulders—not the back of his head. Be careful not to push the baby's head forward.

Step 8: Notice how she responds and ask her how her baby's sucking feels:

- Ask the 'mother' how she feels. She should say something like 'Oh, much better thank you.' Then explain to the participants:
 - Notice how the mother responds.
 - Ask the mother how suckling feels.
 - If suckling is comfortable for the mother, and she looks happy, her baby is probably well attached.

Step 9: Look for signs of good attachment. If the attachment is not good, try again.

Make these points to the participants:

- Look for all the signs of good attachment (which you cannot see with a doll). If the attachment is not good, try again.
- It often takes several tries to get a baby well attached. You may need to work with the mother again at a later time, or the next day, until breastfeeding is going well.
- Make sure that the mother understands about her baby taking enough breast into his mouth.
- If she is having difficulty in one position, try to help her to find a different position that is more comfortable for her.

Demonstration 2: How to help a mother who is lying down

You will demonstrate how to help a mother who is lying down. Participants will follow along by going through the points in the box HOW TO HELP A MOTHER TO POSITION HER BABY. You will demonstrate each of the points in the box one at a time. When you have demonstrated a point, make sure that it is clear to the participants before you move to the next point.

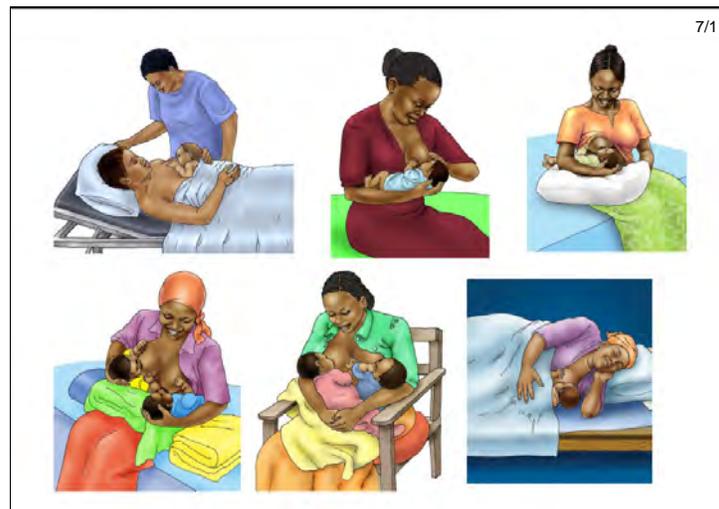
Review these instructions with the other trainer before the day of the training:

- Ask the other trainer who is helping to lie in the way that you practised. The 'mother' should lie down propped on one elbow, with the doll far from her body, loosely held on the mat.
- Practise giving the demonstration with the participant, so that you know how to follow the steps.
- Decide the 'comfortable' position that you will help her to lie in.
- Ask her to wear clothes such as a long skirt or trousers so that she feels comfortable lying down for this demonstration.
- Find a cloth to cover the 'mother's' legs. Find some pillows if these are appropriate in this community.
- You will demonstrate helping the 'mother' to lie down in a comfortable, relaxed position. Explain that the same steps are followed in the box HOW TO HELP A MOTHER TO POSITION HER BABY.

During or after the demonstration make these points clear to participants:

- To be relaxed, the mother needs to lie down on her side in a position in which she can sleep. Being propped on one elbow is not relaxing for most mothers.
- If she has pillows, a pillow under her head and another under her chest may help.
- Exactly the same four key points on positioning are important for a mother who is lying down.
- She can support her baby with her lower arm. She can support her breast if necessary with her upper arm.
- If she does not support her breast, she can hold her baby with her upper arm.
- A common reason for difficulty attaching when lying down is that the baby is too 'high'/near the mother's shoulders, and his head has to bend forward to reach the breast.
- Breastfeeding lying down is useful:
 - When a mother wants to sleep, so that she can breastfeed without getting up.
 - Soon after a caesarean section, when lying on her back or side may help her to breastfeed her baby more comfortably.

Show **Slide 7/1. How to hold and attach your baby for breastfeeding**



Make these points:

- There are many other positions in which a mother can breastfeed. In any position, the important thing is for the baby to take enough of the breast into his mouth so that he can suckle effectively.
- This counselling card can be used with mothers who have chosen to breastfeed. It shows various ways a mother can sit or lie down comfortably to breastfeed her baby.

Practice Session: Positioning a baby using dolls

Divide the participants into small groups of three to four participants with one trainer. Each group will need one doll. The participants should take it in turns to be the 'counsellor,' the 'mother,' and 'observers.' The 'mother' should pretend to be having difficulties positioning her baby. Encourage the participants to practise all the skills they have learnt so far. Encourage them to follow the steps on HOW TO HELP A MOTHER TO POSITION HER BABY. Allow them to practice for about 20 minutes.

After participants have had a chance to practice, in plenary facilitate a discussion about their experience practicing helping mothers to position and attach correctly.

Session 8: Growth charts

Learning objectives

After completing this session participants will be able to:

- Explain the meaning of the standard curves.
- Plot a child's weight on a growth chart.
- Interpret individual growth curves.

Materials and preparation

- Make sure that **Slides 8/1–8/5** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- One copy of the local growth chart for each participant.
- Copies of the growth charts with standard curves for all participants.

Suggested time: 60 minutes

Session guide

Ask: Have you used growth charts with mothers? Why are growth charts important? Why is it important to understand growth charts when counselling on infant feeding?

Allow participants to discuss.

Make the following points:

- Growth curves are tools to promote and monitor the growth of an infant.
- Monitoring the growth of an infant in a regular manner is a way to see if a child is growing properly, and, if it is not, to make up for a slow growth rate as rapidly as possible so as to prevent the malnutrition or death of the infant.
- Growth curves can reflect past and present conditions regarding the feeding of an infant and its state of health.
- If growth curves are not correctly interpreted, incorrect information can be given a mother, causing worry and loss of confidence.
- Growth of an infant can be monitored from its weight and/or its size. Different growth curves exist for each of these measures. The simplest and most used way for monitoring an infant's growth is to compare its weight in relation to its age (weight-for-age).
- A child who is undernourished for a long time will show slow growth in length or height. This is referred to as stunting or very short height for age.
- Good feeding practices—both before the child is 6 months old and after complementary foods have been introduced—can help prevent growth faltering in both weight and length.

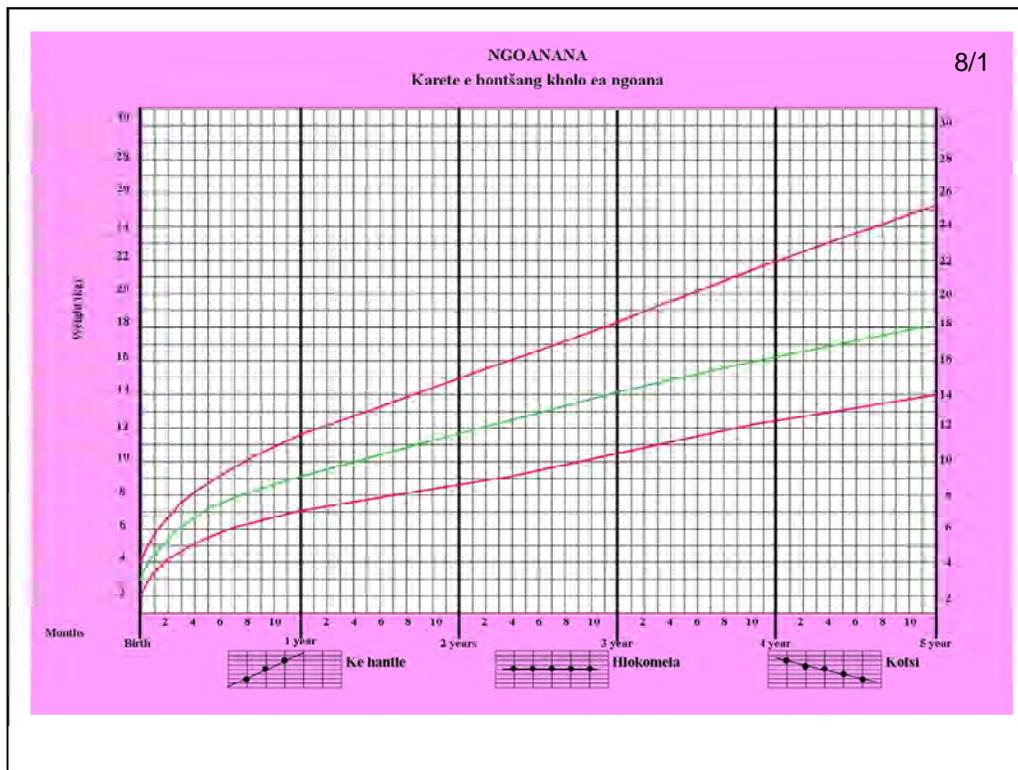
Ask: How do we monitor the weight of an infant in order to measure its progress against the growth curve for its age?

Participants should mention the following:

1. Calibrate the scale.
2. Calculate the age of the infant in months.
3. Take off the infant's clothes and weigh it using a precise, correct scale.
4. Use the chart on weight-for-age.
 - On the left axis, there is a line indicating the weight of the infant in kilograms.
 - On the lower axis of the chart, there is a line indicating the age of the infant in months (mark the date of the visit here).

- Mark on this chart the point (or intersection) where the line for the infant's weight crosses the line for the infant's age.
5. Determine if the growth of the infant is satisfactory.
 6. Explain the growth curve of the infant to its mother. Congratulate her for its good growth and her good feeding practices. If the infant has low weight, try to determine the causes and counsel the mother regarding what she can do to help her infant grow.

Show **Slide 8/1**.



Explain that this is a chart of ordinary growth developed by the MOHSW that indicates weight-for-age of girls from 0 to 5 years.

Ask: Where do we find the infant's age on the graph?

Wait for several responses and continue.

The age of the infant in months is seen on the horizontal line on the bottom of the graph (abscissa axis); point to it on the slide.

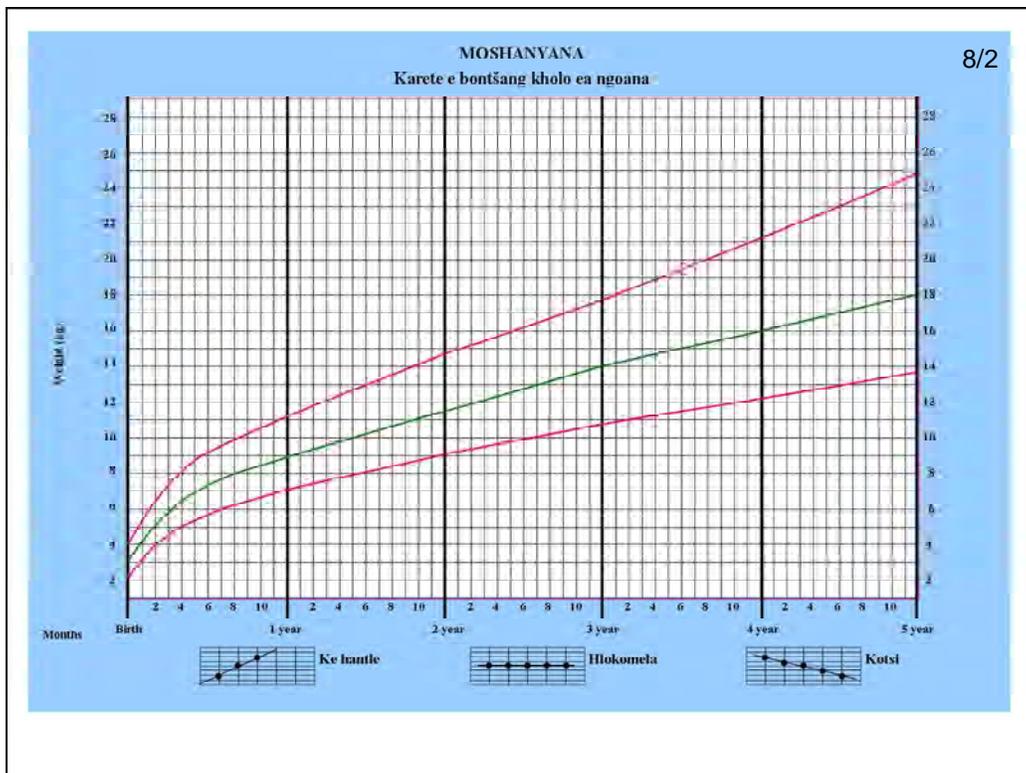
Ask: Where do we find the infant's weight on the graph?

Wait for several responses and continue.

- The weight of the infant is found the vertical line on the left of the graph (ordinates axis). Point to it on the transparency.
- There are three curves in the chart. The middle curve shows the average weight or median for infants of this age in good health. It is also called the 50th percentile because the weights of 50% of infants in good health are below this weight and 50% are above.
- Most infants in good health are close to the curve of the 50th percentile, either a little above or a little below.

- The growth curve of a normally growing child will usually follow a track that is parallel to the median, although the track may be above or below the median.
- The other two lines, called 'Z-score lines,' indicate distance from the average. A point or trend which is far from the median, such as 2 or -2, may indicate a growth problem (points or trends much farther from the median *usually* indicate a health problem).
- The lowest line indicates a weight below the norm for the age of the infant. An infant below this line is underweight. A genetically small child may be near this curve but still be growing well. As long as the child is growing normally (curve parallel to the median or z-score lines) all may be well. However, if they are not growing normally, or if they are losing weight, then they definitely are not in good health and need attention. (Point this out on the transparency.)
- We can identify infants whose weight is below the lowest curve on the weight-for-age table. This has to do with infants with low weight-for-age.
- When you see the growth curve for an infant, the most important matter is to determine that the curve is parallel to the median line, and especially that it is not staying level or descending.
- Good feeding habits—both before the age of 6 months and after the introduction of complementary foods—can help improve size and weight and maintain both curves in the normal growth pattern.

Show **Slide 8/2. The MOHSW's growth curve for boys**



Lesotho currently uses a growth curve with two lines to determine the weight-for-age of an infant. An infant in good health will have a curve that falls somewhere between the two. These two lines are similar to the red lines (-2 standard deviation to + 2 standard deviation) in the chart below.

Explain the following:

- The curve of an infant should always be following the normal growth pattern. If it is flat or goes down, there is a problem with feeding practices or with the infant's health.
- If the weight-for-age is below the lower red curve, the infant's weight is below the norm for its age. If the weight-for-age is above this curve, the weight of the infant is not low for its age.
- If the child's *pattern of growth* (growth curve) parallels the pattern of the median curve, the child is growing normally even if s/he is low weight-for-age.

Show **Slide 8/3**.



Explain that this is a growth chart for three infants who have been weighed regularly.

Ask: What do you see when looking at this chart with three different infants? Remember the general form of the growth curve.

Wait for several responses, and then continue:

- The growth chart of these three infants shows that all the infants have a curve similar to the reference curve (median curve, 0). Nevertheless, each grows according to its individual curve. Notice that they all have different weights at birth.
- Weight alone does not give a lot of information. You need a set of indicators before interpreting the trend of the curve.
- One infant can grow more at a given time than another, so that there can be highs and lows on the curve. It is therefore important to look for the general pattern.
- If the growth of an infant is delayed, it is important to identify the causes so that you can help the mother.

Show **Slide 8/4. Curve of stationary growth**



Explain: Here is the growth curve for Masupha, who has been regularly weighed.

Ask: What do you think of the growth of Masupha?

Wait for several responses, and then continue.

Masupha developed well during the first 6 months but not since then. His weight is currently stationary (his curve has become horizontal). You need to ask his mother some questions to know the causes for this.

Ask: What would you ask the mother of Masupha?

Wait for several responses, and then continue. Encourage participants to use open questions and to avoid words that express a judgement in their responses.

Here are certain questions that you can ask about him:

- How was Masupha fed during the first 6 months of his life?
- What type of milk is Masupha consuming now?
- What meals does Masupha receive now? How many meals does he have each day?
- What amount does he eat? What types of food does he eat?
- What was the health of Masupha over the past months?

You can find out that Masupha was breastfed exclusively during the first 6 months of his life and that his mother continues to breastfeed him frequently during day and night. At 6 months, his mother began to give him a light cereal twice a day. He has not been sick since his last visit. His weight does not increase because he needs other foods that are more nourishing (an enriched porridge, for example) and he needs to eat more often every day.

Ask: What is Masupha's mother doing well?

Wait for several responses and then continue.

Ask: What could you say to Masupha's mother to encourage her?

Allow participants to share. Here are some suggested responses:

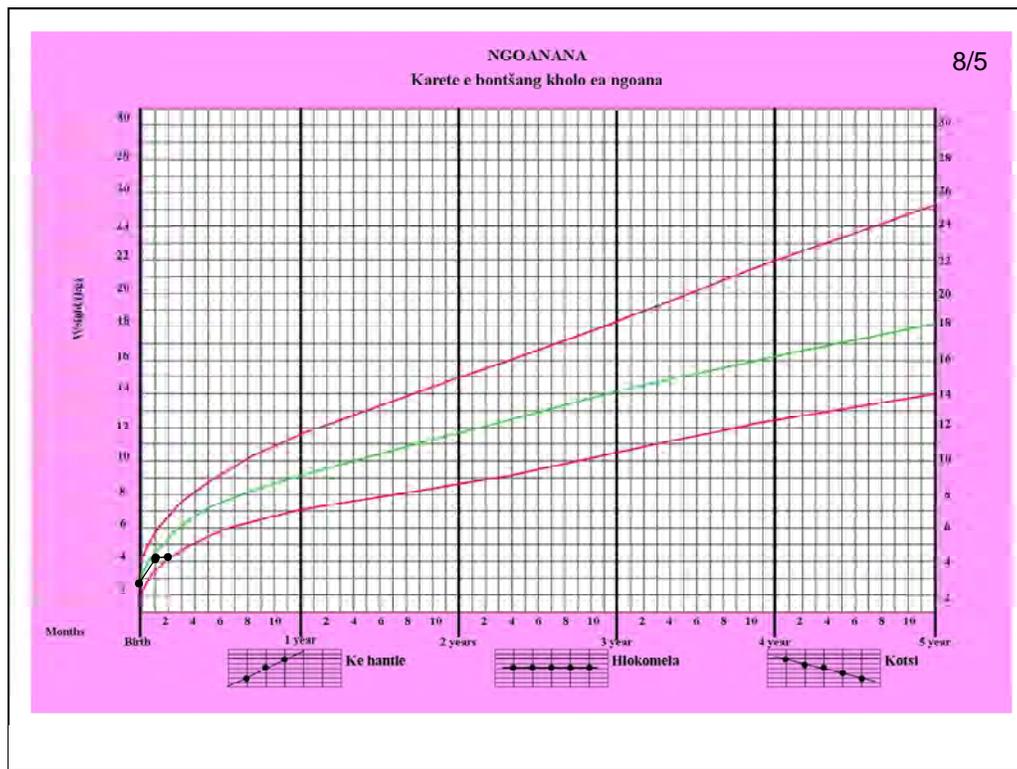
- You have done well in exclusively breastfeeding during the first 6 months of his life. See how well he has grown with just your breastmilk.
- It is good that you still continue to breastfeed Masupha now that he is older than 6 months.
- It is good that you continue to feed Masupha during the night and that he sleeps with you.

Ask: Why is Masupha's weight not going up?

Participants should mention:

- Masupha is only getting two meals a day of thin porridge. He needs complementary foods rich in nutrients more often now that he is older than 6 months. Later in the course we will speak more in detail about complementary foods.

Show **Slide 8/5. Stationary growth curve**



Here is the growth curve of Thithili, who came regularly to the health centre. *Ask: How did this baby develop?*

Explain that this infant developed slowly. You may need to ask certain questions of the mother to see how Thithili is fed.

Ask: What are questions you could ask Thithili's mother?

Participants may mention:

- How is Thithili fed?

- How frequently is she fed?
- Who does Thithili sleep with?
- If the mother says that she breastfeeds: How is the breastfeeding going?

Ask participants if they have any questions. Summarise this session by sharing the following:

- Growth charts are tools for giving information about how well an infant is feeding.
- The most important matter is to see if the curve is following the pattern of the median curve, and especially that it is not ascending and not horizontal or descending.
- Growth is the monitoring indicator for the growth and development of an infant.

Trainer's notes

Growth curves for breastfed babies: WHO developed new reference growth curves by weighing babies exclusively breastfed in six countries: Ghana, India, Norway, Oman, Brazil and the United States. Babies exclusively breastfed can gain weight more rapidly than the reference curve for the first 3 to 4 months, but they can gain weight a bit more slowly from 4 to 6 months. They are in good health and have all the milk they need. Babies fed breastmilk can be slightly bigger at that age.

Session 9: Building confidence and giving support

Learning objectives

After completing this session participants will be able to:

- List the six confidence and support skills.
- Give an example of each skill.
- Demonstrate the appropriate use of the skills when counselling on IYCF.

Materials and preparation

- Flip chart, markers.
- Make copies of Demonstrations 1 to 4. Study the instructions, so that you are clear about the ideas they illustrate, and you know what to do. Give each of the participants a copy of the demonstration that she has to read.
- Ask different participants to help you to give the Demonstrations 1 to 4. Explain what you want them to do.
- Copies of the Counselling Skills Checklist.

Suggested time: 50 minutes

Session guide

Introduction

Introduce the session by sharing the following information:

- A mother can easily lose confidence in herself. This may lead to her feeling that she is not successful and give into pressure from family and friends.
- You can use confidence-building and giving support skills to help her to feel confident and good about herself.
- It is important not to make a mother feel that she has done something wrong. A mother easily believes that there is something wrong with herself, how she is feeding her child, or with her breastmilk if she is breastfeeding. This reduces her confidence.
- It is important to avoid telling a mother what to do.
- Help each mother to decide for herself what is best for her and her baby. This increases her confidence.

Explain that they will observe and practice six skills for building a mother's confidence and giving her support. These skills are also important when counselling caregivers and other family members.

Skill 1. Accept what a mother thinks and feels

Explain the skill:

- Sometimes a mother thinks something that you do not agree with—that is, she has a mistaken idea.
- Sometimes a mother feels very upset about something that you know is not a serious problem.

Ask: How will she feel if you disagree with her, or criticise, or tell her that it is nothing to be upset or to worry about?

Participants may mention that you may make her feel that she is wrong. This reduces her confidence. She may not want to say any more to you. Explain that:

- It is important not to disagree with a mother.

- It is also important not to agree with a mistaken idea. You may want to suggest something quite different. That can be difficult if you have already agreed with her.
- Instead, you just accept what she thinks or feels. Accepting means responding in a neutral way, and not agreeing or disagreeing.

Ask the two participants whom you have prepared to give Demonstration 1 to read out the words of the mother and health worker. After each response from the health worker ask the participants whether the response was agreeing, disagreeing, or accepting.

Introduce the role play by explaining that we will now see a role play showing acceptance of what a mother thinks. This mother has a 1-week-old baby.

Demonstration 1: Accepting what a mother thinks

Mother: 'My milk is thin and weak, and so I have to give bottle feeds.'

Health worker: 'Oh no! Milk is never thin and weak. It just looks that way' (nods, smiles).

Ask: Did the health worker agree, disagree, or accept?

Comment: This is an inappropriate response, because it is disagreeing. How would this make the mother feel?

Mother: 'My milk is thin and weak, so I have to give bottle feeds.'

Health worker: 'Yes – thin milk can be a problem.'

Ask: Did the health worker agree, disagree, or accept?

Comment: This is an inappropriate response because it is agreeing.

Mother: 'My milk is thin and weak, so I have to give bottle feeds.'

Health worker: 'I see. You are worried about your milk.'

Ask: Did the health worker agree, disagree, or accept?

Comment: This is an appropriate response because it shows acceptance.

Make these additional points:

- Reflecting back and giving simple responses are useful ways to show acceptance. Later in the discussion, you can give information to correct a mistaken idea.
- In a similar way, empathising can show acceptance of a mother's feelings.
- If a mother is worried or upset, and you say something like, 'Oh, don't be upset, it is nothing to worry about,' she may feel that she was wrong to be upset.
- This reduces a mother's confidence in her ability to make her own decisions.

Ask the two participants whom you have prepared to give Demonstration 2 to read out the words of the mother and health worker. Introduce the role play by explaining that the last role play showed acceptance of what a mother thinks. We will now see a role play showing acceptance of what a mother feels. This mother has a 9-month-old baby.

Demonstration 2: Accepting what a mother feels

Mother (in tears): 'It is terrible, (child's name) has a cold and his nose is completely blocked and he can't breastfeed. He just cries and I don't know what to do.'

Health worker: 'Don't worry, your baby is doing very well.'

Ask: Was this an appropriate response?

Comment: This is an inappropriate response, because it did not accept the mother's feelings and made her feel wrong to be upset.

Mother (in tears): 'It is terrible, (child's name) has a cold and his nose is completely blocked and he can't breastfeed. He just cries and I don't know what to do.'

Health worker: 'Don't cry – it's not serious. (Child's name) will soon be better.'

Ask: Was this an appropriate response?

Comment: This is an inappropriate response. By saying things like 'don't worry' or 'don't cry' you make a mother feel it is wrong to be upset, and this reduces her confidence.

Mother (in tears): 'It is terrible, (child's name) has a cold and his nose is completely blocked and he can't breastfeed. He just cries and I don't know what to do.'

Health worker: 'You are upset about (child's name) aren't you?'

Ask: Was this an appropriate response?

Comment: This is an appropriate response because it accepts how the mother feels and makes her feel that it is all right to be upset. Notice how empathising was used to show acceptance. So this is another example of using a listening and learning skill to show acceptance.

Skill 2. Recognize and praise what a mother and baby are doing right

Explain that as health workers, we are trained to look for problems. Often, this means that we see only what we think people are doing wrong, and try to correct them.

Ask: How does it make a mother feel if you tell her that she is doing something wrong, or that her baby is not doing well?

Wait for a few replies and then continue.

- It may make her feel bad, and this can reduce her confidence.
- As counsellors, we must look for what mothers and babies are doing right.
- We must first recognise what they do right, and then we should praise or show approval of the good practices.
- Praising good practices has these benefits:
 - It builds a mother's confidence.
 - It encourages her to continue those good practices.
 - It makes it easier for her to accept suggestions later.
- In some situations it can be difficult to recognise what a mother is doing right. But any mother whose child is living must be doing some things right, whatever her socioeconomic status or education.

Read out the following scenario: *Imagine a mother who has brought her 3-month-old baby to be weighed. The baby is exclusively breastfed. His growth chart shows that he has gained a little weight over the last month. However, his growth line is not following the reference curves. It is rising too slowly. This shows that the baby's growth is slow.*

Ask: What would you say to the mother to help build her confidence?

Allow several participants to give suggestions.

A correct response would be similar to: 'Your baby gained weight last month just on your breastmilk.'

Skill 3. Give practical help

Explain that sometimes giving practical help is better than saying anything. For example:

- When a mother feels tired or dirty or uncomfortable.

- When she has had a lot of information already.
- When she has a clear practical problem.

Ask: What kind of practical help might you offer?

Participants should mention:

- Help her to feel comfortable or give her a bed to rest on, if appropriate.
- Hold the baby yourself while she gets comfortable, or washes, or goes to the toilet.
- It also includes practical help with feeding, such as helping a mother with positioning and attachment, expressing breastmilk, relieving engorgement, or preparing complementary foods.

Ask participants to imagine the follow scenario: *A mother is lying in bed soon after delivery. She looks miserable and depressed. She is saying to the health worker: 'No, I haven't breastfed him yet. My breasts are empty and it is too painful to sit up.'*

Ask: What would you say to this mother? Allow participants to discuss.

Explain that the appropriate response would be to offer practical help, by making the mother comfortable before she helps her to breastfeed. Of course it is important for the baby to breastfeed soon. But it is more likely to be successful if the mother feels comfortable. Emphasise that the mother can also breastfeed while lying down, as we reviewed in the session on positioning and attachment.

Skill 4. Give the key messages

Explain the following:

- Mothers often need information about feeding. It is important to share your knowledge with them. It may also be important to correct mistaken ideas. However, sometimes health workers know so much information that they think they need to tell it all to the mother.
- It is a skill to be able to listen to the mother and choose just two or three pieces of the most important information to give at this time.
- Try to give information that is relevant and important to her situation now. Tell her things that she can use today, not in a few weeks' time.
- Explaining the reason for difficulty is often the most relevant information when it helps a mother to understand what is happening.
- Try to give only one or two pieces of information at a time, especially if a mother is tired, and has already received a lot of information.
- Give information in a positive way, so that it does not sound critical, or make the mother think that she has been doing something wrong. This is especially important if you want to correct a mistaken idea.
 - For example, instead of saying 'Thin porridge is not good for your baby,' you could say: 'Thick foods help the baby to grow.'
- Before you give information to a mother, build her confidence. Accept what she says, and praise what she does well. You do not need to give new information or to correct a mistaken idea immediately.

Ask participants to imagine the following scenario: *A baby is 3 months old. His mother has recently started giving some formula feeds in a bottle in addition to breastfeeding. The baby has developed diarrhoea. The mother is saying to the health worker: 'He has started to have loose stools. Should I stop breastfeeding?'*

Ask: What would you say to this mother?

Allow participants to discuss.

Explain that the appropriate response would be to be supportive of the mother. They could say something like, 'It is good that you asked before deciding. Diarrhoea usually stops sooner if you continue to breastfeed and stop giving formula.'

Skill 5. Use simple language

Explain the skill:

- Health workers learn about diseases and treatments using technical or scientific terms.
- When these terms become familiar, it is easy to forget that people who are not health workers may not understand them.
- It is important to use simple, familiar terms, to explain things to mothers.

Explain that we will now see a demonstration. Ask the two participants whom you have prepared to give Demonstration 3 to read the words of the mother and health worker. Discuss briefly what the participants have observed after each section.

Demonstration 3: Using technical language

Health worker: 'Good morning (name). What can I do for you today?'

Mother: 'Can you tell me what foods to give my baby, now that she is 6 months old?'

Health worker: 'I'm glad that you asked. Well now, the situation is this. Most children need more nutrients than breastmilk alone when they are 6 months old because breastmilk has less than 1 milligram of absorbable iron and breastmilk has about 450 calories, so it provides less than the 700 calories that are needed. The vitamin A needs are higher than what is provided by breastmilk and also the zinc and other micronutrients. However, if you add foods that aren't prepared in a clean way it can increase the risk of diarrhoea, and if you give too many poor-quality foods the child won't get enough calories to grow well.'

Ask: What did you observe?

Comment: The health worker is providing too much information. It is not relevant to the mother at this time. She is using words that are unlikely to be familiar.

Explain, now we will see another mother receiving information in a different way. Again, listen for the skills listed. Ask the two participants whom you have prepared to give Demonstration 4 to read the words of the mother and health worker.

Demonstration 4: Using simple language

Health worker: 'Good morning Me. How can I help you?'

Mother: 'Can you tell me what foods to give my baby, now that she is 6 months old?'

Health worker: 'You are wondering about what is best for your baby. I'm glad you have come to talk about it. It is usually a good idea to start with a little porridge to get him used to the taste of different foods. Just two spoons twice a day to start with.'

Ask: What did you observe this time?

Comment: The health worker explains about starting complementary foods in a simple way.

Skill 6. Make one or two suggestions, not commands

Explain the skill:

- You may decide that it would help a mother if she does something differently; for example, if she feeds the baby more often, or holds him in a different way. However, you must be careful not to tell or command her to do something. This does not help her to feel confident.

- When you counsel a mother, you suggest what she could do. Then she can decide if she will try it or not. This leaves her feeling in control, and helps her to feel confident.

Ask participants to imagine the following scenario: *Makatleho breastfeeds only four times a day, and she is gaining weight too slowly. Her mother thinks that she does not have enough breastmilk.*

Ask: What would you say to this mother?

Allow participants to discuss.

Explain that the appropriate response would be to suggest that it might help if you feed Makatleho more often. Another way to make a suggestion is to ask a question, for example: 'Have you thought of feeding her more often? Sometimes that helps.'

Review the six skills and ask participants if they have any questions:

- Accept what a mother thinks and feels.
- Recognise and praise what a mother and baby are doing right.
- Give practical help.
- Give the key information.
- Use simple language.
- Make one or two suggestions, not commands.

Session 10: Taking a feeding history

Learning objectives

After completing this session participants will be able to:

- Take a feeding history of an infant 0 to 6 months.
- Demonstrate appropriate use of the Guide for Evaluating Infant Feeding, 0–6 Months.

Preparation

- Ask for two volunteers to role play a health worker taking a feeding history from a mother.
- Copies of the Guide for Evaluating Infant Feeding, 0–6 Months for each participant.

Suggested time: 40 minutes

Session guide

Introduction

Share the following information:

- We have discussed how to evaluate infant growth using the growth curve. When an infant is not growing well, we need to find the reason why very quickly to help the baby grow well again.
- If an infant is growing well, it is important to continue asking the mother questions about how the baby is eating, to reinforce the positive practices of the mother, so the baby stays healthy.
- A mother should discuss feeding her baby with a health worker at least once a month when she brings her baby to be weighed.

Ask: Why is it important to evaluate the feeding of a baby so often?

Wait for some responses and complete them with the following information:

- Mothers benefit from regular, positive reinforcement of appropriate feeding practices for their babies.
- Problems linked to feeding practices can be identified early before causing malnutrition, growth problems, and other illnesses.
- Mothers may need help to understand the amount of food their babies need and how often they should feed them.
- Breastfeeding mothers need to be reminded to breastfeed them exclusively.
- Mothers who breastfeed may need assistance and support to resist family or community pressure to introduce other foods besides breastmilk during the first 6 months after birth.
- HIV-positive mothers who choose to give their babies infant formula may need assistance in preparing it well.
- HIV-positive mothers who choose to give their babies infant formula may need support to resist community pressure to breastfeed their babies.

Emphasise the following points:

- Poor feeding techniques often lead to growth problems. There are a number of practices that influence the quality of an infant's feeding.
- The Guide for Evaluating Infant Feeding, 0–6 Months is a tool that can help you to help a mother with all of these practices.

Review of counselling techniques

Explain that before looking at the guide, we are first going to review the counselling techniques that we have used so far during the course.

Ask: What are the techniques that will help us to have a good meeting with a mother?
Await several responses and complete these responses with the following information.

<p>Effective nonverbal communication techniques</p> <ul style="list-style-type: none"> • Maintain visual contact. • Stay attentive. • Be confident. • Take your time. • Keep a suitable attitude. 	<p>Listening and learning techniques</p> <ul style="list-style-type: none"> • Greet the woman in a gentle and friendly manner. • Use the name of mother and baby if appropriate. • Ask open questions. • React simply when showing your interest. • Paraphrase or restate what the mother says. • Show that you understand what she feels. • Avoid judgemental words.
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There is guidance you can follow to ensure that your evaluation addresses the situation of each mother and her infant. The table below provides general ideas on how to proceed with an evaluation.

Steps for conducting an infant feeding evaluation	
GREET	The mother gently and in a friendly manner. (Call the mother and baby by their names if appropriate.)
EXPLAIN	<p>Why you want to ask her questions about the feeding of her infant.</p> <p>For example:</p> <ul style="list-style-type: none"> • <i>Your infant is here today for its regular monitoring visit or to receive its vaccines at 10 weeks. I can see from its growth curve that it is growing well. I would like to ask some questions about the baby's feeding and to talk with you a little about how you plan to feed it in the coming months.</i> • <i>Your baby is here today because she has diarrhoea. I can see on the basis of her growth curve that she has not gained sufficient weight the past month. I would like to ask you some questions about how you are feeding her. I hope that together we will be able to help your daughter start to grow well again.</i> • <i>Your baby is here today because he has a fever. Part of my exam will be to ask you some questions about his feeding. What I learn about how he is eating will help me better counsel you regarding his health.</i>

ASK	Try to ask questions that will give you the most information. Use the guide for choosing questions to ask.
BE CAREFUL	Not to appear too critical and not to pass judgement.
TAKE	<p>The time to discuss the most difficult and sensitive questions.</p> <p>For example:</p> <ul style="list-style-type: none"> • <i>What does the father say about the infant? Its mother? The mother-in-law?</i> • <i>Is the mother happy to have a baby now?</i> • <i>Is she pleased with the sex of the infant?</i> <p>Certain mothers say things spontaneously. Others speak when you emphasise things and show that you understand them. Yet others take some time. If a mother does not speak easily, wait a bit and ask the question later or on another day, perhaps in a more private place.</p>
PRAISE	The mother that she has done well.
SUGGEST	One or two things that the mother can do to resolve the problems at hand.
PLAN	The next meeting with the mother and baby, or refer the mother to other services if they are needed.

Pass out copies of the Guide for Evaluating Infant Feeding, 0–6 Months and call attention to the following:

- Notice that the guide asks you to pose questions about the feeding of the baby as well as about the mother’s situation.
- Notice also that the guide provides you with questions to ask at each visit, but also questions to ask only if you see that the infant’s growth is not optimal.
- Note that it is not necessary to pose all the questions in the guide at each visit. The guide is simply a tool to assist you in remembering questions that could be important for better understanding of infant feeding.
- Ask participants to review the guide. Give some minutes to each participant for reading the sections of the guide. When they have finished reading all sections, ask if they have questions or comments to share with the group.

Guide for Evaluating Infant Feeding, 0–6 Months

Each time a mother visits, ask these questions about infant feeding:

- Do you have any concerns about feeding the infant? If so, what are they?
- What does the infant eat or drink? (Answers include breastmilk, infant formula, other foods, and milks and liquids including water.)

If the answer is breastmilk, then ask:	If the answer is formula, then ask:	If the answer is other foods, then ask:
<ul style="list-style-type: none"> • How many times during the day does the infant breastfeed? • How many times during the night does the infant breastfeed? • How long does each breastfeed last? • Does the infant eat or drink anything other than breastmilk? • Does the infant take water? • Are there other persons besides you who feed the baby? If so, what do they give the baby? • Do they use a baby bottle or a cup? 	<ul style="list-style-type: none"> • What formula does the infant drink? • What do you use to feed the infant—a baby bottle or a cup? • How many times does the infant drink during the day? • How many times does the infant drink during the night? • How much does the infant drink at each meal? • Does the infant eat or drink anything other than formula? • Does the infant take water? • Does anyone else feed the baby? 	<ul style="list-style-type: none"> • Why do you give this food? • Do you continue to breastfeed? (Can you change and exclusively breastfeed?) • Have you chosen this food for a particular reason? (Can you change and use commercial replacement milk?) • Does the infant take water? • Do you give other liquids (tea, juice, other) to your infant? • When did you start giving other liquids to your infant? • Do you give other foods to your infant? • When did you start giving other foods to your infant? • Why do you give liquid or foods to your infant besides breastmilk/or commercial replacement milk? • Can you nurse the infant more often or increase the amount of milk and not give other liquids or foods before the age of 6 months?

Ask the mother questions about her situation:

- How old are you?
- What is the status of your health?
- How did your pregnancy go?
- How did your delivery go?
- Are you feeding your infant the way you planned before its birth?
- If you breastfeed, do you have problems with your breasts?
- Have you received help in feeding your infant?
- Is this your first infant? If no, how many children do you have?
- How did you feed your other children? Is this way agreeable to you?
- What do other persons in your household think of the way that you feed your infant?
- Do you use family planning, or do you plan to use it?

Ask questions about any infant growth or health problems:

- During a whole day, how many times does the infant urinate (day or night)?
- During a whole day, how many times does the infant have a bowel movement (day or night)? What is the consistency of its stools?
- Has the infant had a recent illness? (Examples are malaria, diarrhoea, and respiratory infection.) Has the infant seen a doctor or taken medicines?
- How did you feed your infant during and after his illness?

Explain that you will show how to use the Guide for Evaluating Infant Feeding, 0–6 Months. Ask participants already prepared to read the words of the health agent and the mother. Circulate the growth chart for Mampho among the participants during the demonstration.

Demonstration 1. Evaluating the feeding of Mampho

<i>Nurse:</i>	‘Good morning, I am the nurse, Limpho. May I ask your name and your baby’s name?’
<i>Mother:</i>	‘Good morning, Nurse. I am Mathabo and this is my daughter Mampho.’
<i>Nurse:</i>	‘She is cute—how old is she?’
<i>Mother:</i>	‘She is three and a half months now.’
<i>Nurse:</i>	‘Okay—and she’s interested in what’s going on, right? Tell me, what milk have you been giving her up to now?’
<i>Mother:</i>	‘Well, I started by breastfeeding, but she was so hungry that I never seemed to have enough milk, so I had to add milk from a baby bottle, too.’
<i>Nurse:</i>	‘My dear, that can be really disturbing when an infant is always hungry. So did you start feeding with a baby bottle? What did you give her?’
<i>Mother:</i>	‘Well, I put some milk in the bottle.’
<i>Nurse:</i>	‘When did she start to eat these meals?’
<i>Mother:</i>	‘When she was about 2 months old.’
<i>Nurse:</i>	‘About 2 months old. How many bottles did you give her a day?’
<i>Mother:</i>	‘Oh, usually two—I prepare one in the morning and one in the evening, and she drinks each time she wants to—each bottle lasts a long time.’
<i>Nurse:</i>	‘So she drinks from the bottle gradually? What sort of milk do you use?’
<i>Mother:</i>	‘Yes—Well, if I have formula, I use it. If not, I simply use cow’s milk, adding some water or milk with sugar because it’s less expensive. She really likes milk with sugar!’

<i>Nurse:</i>	'Formula is very expensive, isn't it? Tell me more about breastfeeding. How often doe she take the breast now?'
<i>Mother:</i>	'Oh, she eats when she wants to. Very often at night, four or five times. During the day, I don't count. She likes being comfortable.'
<i>Nurse:</i>	'She nurses at night?'
<i>Mother:</i>	'Yes, she sleeps with me.'
<i>Nurse:</i>	'Oh, it's easier that way, right? Have you had any other difficulties with breastfeeding beside the fear that you don't have enough milk?'
<i>Mother:</i>	'No, it hasn't been difficult at all.'
<i>Nurse:</i>	'Have you given her anything else? Food or drinks?'
<i>Mother:</i>	'No—I am not going to breastfeed her much longer. She is perfectly happy to take bottles.'
<i>Nurse:</i>	'Can you tell me how you clean the bottles?'
<i>Mother:</i>	'I just rinse them with hot water. If I have soap, I use it. Otherwise, just water.'
<i>Nurse:</i>	'Okay, now can you tell me how Mampho is doing? Does she have a growth curve? May I see it? (The mother gives her the health card). Thanks, I'll look at it... She weighed 3.5kg when born, 5.5kg when she was 2 months, and now she weighs 6.0kg. You can see that she gained weight quickly during the first 2 months but a bit more slowly since then. Can you tell me what illnesses she has had?'
<i>Mother:</i>	'Yes – she had diarrhoea twice last month, but she seems better. Her stools have become normal now.'
<i>Nurse:</i>	'How old are you?'
<i>Mother:</i>	'I'm 22.'
<i>Nurse:</i>	'How is your health? How are your breasts?'
<i>Mother:</i>	'I am well—my breasts have no problems.'
<i>Nurse:</i>	'May I ask if you think that you are pregnant right now? Have you thought about family planning?'
<i>Mother:</i>	'No—I have not thought about it—I was thinking that I could not get pregnant if I was breastfeeding.'
<i>Nurse:</i>	'In fact, it's possible to become pregnant if you also give other foods. We will talk about that later if you want. Is Mampho your first baby?'
<i>Mother:</i>	'Yes. I don't want another right now.'
<i>Nurse:</i>	'Tell me, how are things going at home now? Are you working outside of the home?'
<i>Mother:</i>	'No—right now I am at home with Mampho. I could look for work later when Mampho is bigger.'
<i>Nurse:</i>	'Who else at home helps you?'
<i>Mother:</i>	'My husband works as a taxi driver, so he is not home very much. Mampho's grandmother is with me during the day. She loves Mampho very much, and thinks that she is very thirsty and needs to be given water. Sometimes when she is watching her she gives her water and the milk from the bottle.'

Discuss the demonstration. Ask the group what they think of the technique of using the job aid. Ask the following questions:

- *Did Nurse Limpho use her competencies in listening and learning to get information? Can you give examples? (Encourage participants to give specific examples.)*
- *What examples of empathy did the health agent use? (Examples of empathy are: 'Well, that can be disturbing when an infant is always hungry,' and 'It is worrisome when your breasts are flabby after delivery, isn't it?')*
- *Did Nurse Limpho ask questions from all sections of the Guide for Evaluating Infant Feeding, 0–6 Months?*
- *Did she leave out important questions?*
- *Did the fact that she asked questions from each section of the guide help her understand the difficulties?*
- *What were the difficulties of feeding in this situation? These include:*
 - *The perceived insufficiency of milk at 2 months that led to starting complementary feeding with a bottle.*
 - *The addition of other milks and water in the baby bottle.*
 - *The use of unmodified cow's milk with sugar if there was no powdered milk.*
 - *Inappropriate washing of bottles.*
 - *Two episodes of diarrhoea*
 - *Insufficient growth since 2 months of age.*
 - *No assistance with initial breastfeeding.*
 - *Introduction of water before 6 months are completed.*
 - *The nature of the father's work.*
 - *The lack of knowledge of Mampho's mother and grandmother.*

Session 11: Breastfeeding difficulties

Learning objectives

After completing this session participants will be able to:

- Identify the causes of, and help mothers with, the following difficulties:
 - 'Not enough milk.'
 - A crying baby.
 - Breast refusal.

Materials and preparation:

- Flip chart and markers.

Suggested time: 45 minutes

Session guide

Ask: What are common breastfeeding difficulties that women experience?

Write them on a flip chart. (If participants mention mastitis, cracked nipples, plugged ducts, or engorgement, explain that we will talk about breast conditions later in the workshop.)

Explain that there are many reasons why mothers stop breastfeeding or start to give other foods and liquids before a child completes 6 months, even if they decided during pregnancy to breastfeed exclusively. When helping mothers with difficulties you will need to use all the skills you have learnt so far. IYCF counsellors and community health workers have important roles to support mothers through these difficulties, as mothers may not visit a health facility to seek help.

Explain that we are going to look at three common difficulties women face:

1. 'Not enough milk.'
2. A crying baby.
3. Breast refusal.

Trainer's note: If another common difficulty (that is not a breast condition) was mentioned, another group could address it.

Divide participants into three groups and assign one topic to each group. Ask each group to discuss the symptoms, causes, counselling approaches, and ways to address and prevent the difficulty assigned.

After 15 minutes, ask for a representative from each group to present on their topic. After each group presents, ask whether other participants have anything to add. Answer questions, correct misinformation, and add information that was not discussed.

Facilitate discussion in plenary with the following questions:

- *What other breastfeeding difficulties do women in your community experience?*
- *What breastfeeding resources are available in the community?*
- *Where and to whom can referrals be made to help women with breastfeeding?*

Trainer's notes

Insufficient milk

- The problem of 'not enough milk' may arise before breastfeeding has been established, in the first few days after delivery. Then the mother needs help to establish breastfeeding.
- The problem may arise after breastfeeding has been established, after the baby is about 1 month of age. Then the mother needs help to maintain breastmilk production. She should be counselled to breastfeed more often.
- Some mothers worry that they do not have milk at a certain time of day, usually in the evening.
- The causes of the problem and the needs of mothers in these different situations are sometimes different. It is important to be aware of this. However, the same principles of management apply to all situations.

Stool frequency

The stool frequency of infants is very variable. A baby may not pass a stool for several days, and this is quite normal. However, when the baby does pass a stool, it is usually large and semi-liquid. Small dry stools may be a sign that a baby is not getting enough milk. It is also normal for a baby to pass eight or more semi-liquid stools in a day. If the baby has diarrhoea, the stools are watery.

Unreliable signs of 'not enough milk'

Participants may have suggested some of the following signs that make a mother think that she does not have enough milk. They are all unreliable and do not indicate that her baby is not getting enough:

- Baby sucks fingers.
- Baby sleeps longer after bottle feed.
- Baby's abdomen not rounded after feeds.
- Breasts not full immediately after delivery.
- Breasts softer than before.
- Breastmilk not dripping out
- Not feeling her oxytocin reflex.
- Family members ask if she has enough milk.
- Health worker said that she does not have enough milk.
- She was told that she is too young or too old to breastfeed.
- She was told that the baby is too small or too big to breastfeed.
- Poor previous experience of breastfeeding.
- Breastmilk looks thin.

Guidelines, not rules

Using weight gain and urine output as reliable signs as to whether or not a baby is getting enough breastmilk are guidelines, not rules. They can help you to diagnose and correct a clinical breastfeeding problem. However, do not apply them rigidly to all mothers—especially if there is no problem. Experience will guide you.

Weight changes in newborn babies

A newborn baby may lose a little weight in the first few days of life. He should regain his birth weight by the age of 2 weeks. If babies demand feeding from the first day, they start gaining weight more quickly than babies who delay. A baby who weighs less than his birth weight at 2 weeks of age is not gaining enough weight.

These notes may help you explain why a baby is not getting enough milk.

Breastfeeding factors

Delayed start: If a baby does not start to breastfeed on the first day, his mother's breastmilk may take longer to come in, and he may take longer to start gaining weight.

Infrequent feeds: Breastfeeding less than eight times a day in the first 4 weeks, or less than five to six times a day at an older age, is a common reason why a baby does not get enough milk. Sometimes a mother does not respond to her baby when he cries, or she may miss feeds, because she is too busy or at work. Some babies are content and do not show that they are hungry often enough. In this case, a mother should not wait for her baby to demand a feed, but should wake him to breastfeed every 3 to 4 hours.

No night feeds: If a mother stops night breastfeeds before her baby is ready, her milk supply may decrease.

Short feeds: Breastfeeds may be too short or hurried, so that the baby does not get enough fat-rich hindmilk. Sometimes a mother takes her baby off her breast after only a minute or two. This may be because the baby pauses, and his mother decides that he has finished. Or she may be in a hurry, or she may believe that her baby should stop in order to suckle from the other breast. Sometimes a baby stops suckling too quickly; for example if he is too hot, because he is wrapped in too many blankets.

Poor attachment: If a baby suckles ineffectively, he may not get enough milk.

Bottles and pacifiers: A baby who feeds from a bottle or who sucks on a pacifier may suckle less at the breast, so the breastmilk supply decreases.

Complementary foods: A baby who has complementary foods (artificial milks, solids, or drinks including plain water), before 6 months suckles less at the breast, so the breastmilk supply decreases.

Psychological factors of the mother:

Lack of confidence: Mothers who are very young, or who lack support from family and friends, often lack confidence. Mothers may lose confidence because their baby's behaviour worries them. Lack of confidence may lead a mother to give unnecessary supplements.

Worry or stress: If a mother is worried or stressed or in pain, her oxytocin reflex may temporarily not work well.

Dislike of breastfeeding, rejection of the baby, and tiredness: In these situations, a mother may have difficulty in responding to her baby. She may not hold him close enough to attach well; she may breastfeed infrequently, or for a short time. She may give her baby a pacifier when he cries instead of breastfeeding him.

Physical condition of the mother:

Contraceptive pill: Contraceptive pills, which contain estrogens, may reduce the secretion of breastmilk. However, progesterone-only pills and Depo-Provera should not reduce the breastmilk supply.

Diuretics: Diuretics may reduce the breastmilk supply. Diuretics increase the amount of urine that is excreted. They include caffeine (coffee, tea) and alcohol.

Pregnancy: If a mother becomes pregnant again, she may notice a decrease in her breastmilk supply because of hormonal changes associated with pregnancy.

Severe malnutrition: Severely malnourished women may produce less milk. However, a woman who is mildly or moderately undernourished continues to produce milk at the expense of her own tissues, provided her baby suckles often enough.

Alcohol and smoking: Drinking alcohol and smoking cigarettes can reduce the amount of breastmilk that is produced by a mother. Drinking alcohol decreases prolactin yield, blocks release of oxytocin, and can result in a reduction in milk. Drinking large amounts of alcohol can also affect the infant and is associated with deep sleep, drowsiness, decrease in linear growth, and abnormal weight gain. Studies have shown that smoking can reduce the prolactin levels in breastfeeding mothers and interfere with the 'let-down' (or oxytocin) reflex. If a mother smokes she should not do so when feeding the baby. Smoking also significantly increases the infant's risk of respiratory illness.¹

Other very rare conditions:

Retained piece of placenta: This is RARE. A small piece of placenta remains in the uterus, and makes hormones, which prevent milk production. The woman bleeds more than usual after delivery, her uterus does not decrease in size, and her milk does not 'come in.'

Poor breast development: This is VERY RARE. Occasionally a woman's breasts do not develop and increase in size during pregnancy, and she does not produce much milk. If the mother noticed an increase in the size of her breasts during pregnancy, then poor breast development is not her problem. It is not necessary to ask about this routinely. Ask only if there is a problem.

Baby's condition

Illness: A baby who is ill and unable to suckle strongly does not get enough breastmilk. If this continues, his mother's milk supply will decrease.

Abnormality: A baby who has a congenital problem, such as a heart abnormality, may fail to gain weight. This is partly because he takes less breastmilk, and partly because of other effects of the condition. Babies with a deformity such as a cleft palate, or with a neurological problem, or mental handicap, often have difficulty in suckling effectively, especially in the first few weeks. Occasionally you may not be able to find the cause of a poor milk supply, or the milk supply does not improve (the baby does not gain weight) even though you have done everything you can to help the mother. Then you may need to look for one of the less common causes, and help or refer the mother accordingly.

Occasionally you may need to help a mother to find a suitable complement for her baby. Encourage her to:

- Continue breastfeeding as much as possible.
- Give only the amount of complement that her baby needs for adequate growth.
- Give the complement by cup.
- Give the complement only once or twice a day, so that her baby suckles often at the breast.

Remember that the need for complements before 6 months of age should be RARE. A woman should be tested for HIV before suggesting a complement. If she is positive, giving

¹ La Leche League International. The Womanly Art of Breastfeeding. Schaumburg, Illinois: Penguin; 1991. Riordan J, Auerbach K (eds). Breastfeeding and Human Lactation. Sudbury, MA: Jones and Bartlett Publishers; 1999.

breastmilk and a complement should be strongly discouraged as this can significantly increase the risk of transmission to the baby.

Crying

A baby who is 'crying too much' may really be crying more than other babies, or his family may be less tolerant of the crying, or less skilled at comforting the baby. Families' responses to crying are different in different societies. So also are the ways in which parents handle children. For example, in societies where babies are carried around more, they cry less. If babies sleep with their mothers they are less likely to cry at night. Yet babies themselves vary a lot in how much they cry. So it is impossible to say that some patterns are 'normal' and some are not.

Allergies: Babies can become allergic to the protein in some foods in their mother's diet. Cow's milk, soy, egg, and peanuts can all cause this problem. Babies may become allergic to cow's milk protein after only one or two prelacteal feeds of formula.

Drugs that a mother takes: Caffeine in coffee, tea, and colas can pass into breastmilk and upset a baby. If a mother smokes cigarettes or takes other drugs, her baby is more likely to cry than other babies. If someone else in the family smokes, that also can affect the baby.

Breast refusal

These notes will help you to explain the reasons why babies may refuse the breast.

Is the baby ill, in pain, or sedated?

- Illness: The baby may attach to the breast, but suckles less than before.
- Pain: Pressure on a bruise from forceps or vacuum extraction. The baby cries and fights as his mother tries to breastfeed him.
- Blocked nose: Sore mouth, thrush (Candida infection), teething of an older baby. The baby suckles a few times, and then stops and cries.
- Sedation: A baby may be sleepy because of drugs that his mother was given during labour or drugs that she is taking for psychiatric treatment.

Is there a difficulty with the breastfeeding technique?

Sometimes breastfeeding has become unpleasant or frustrating for a baby. Possible causes:

- Feeding from a bottle, or sucking on a pacifier (dummy).
- Not getting much milk, because of poor attachment or engorgement.
- Pressure on the back of the baby's head, by his mother or a helper positioning him roughly, with poor technique. The pressure makes him want to 'fight.'
- His mother holding or shaking the breast, which interferes with attachment.
- Restriction of breastfeeds; for example, breastfeeding only at certain times.
- Early difficulty co-ordinating suckling. (Some babies take longer than others to learn to suckle effectively).

Refusal of one breast only:

Sometimes a baby refuses one breast, but not the other. This is because the problem affects one side more than the other.

Has a change upset the baby?

Babies have strong feelings, and if they are upset they may refuse to breastfeed. They may not cry, but simply refuse to suckle. This is commonest when a baby is aged 3 to 12 months. He suddenly refuses several breastfeeds. This behaviour is sometimes called a 'nursing strike.' Possible causes include:

- Separation from his mother; for example when she starts a job.
- A new caregiver or too many caregivers.

- A change in the family routine—for example, moving house, visiting relatives.
- Illness of his mother, or a breast infection.
- His mother menstruating.
- A change in his mother's smell; for example, different soap or different food.

It may look like refusal but is not refusal

Sometimes a baby behaves in a way which makes his mother think that he is refusing to breastfeed. However, he is not really refusing.

- When a newborn baby 'roots' for the breast, he moves his head from side to side as if he is saying 'no.' However, this is normal behaviour.
- Between 4 and 8 months of age, babies are easily distracted; for example, when they hear a noise, they may suddenly stop suckling. It is a sign that they are alert.
- After the age of 1 year, a baby may wean himself. This is usually gradual.

Management of breast refusal:

If a baby is refusing to breastfeed:

1. Treat or remove the cause if possible.
2. Help the mother and baby to enjoy breastfeeding again.

Step 1. Treat or remove the cause if possible:

- *For illness:* Treat infections with appropriate antimicrobials and other therapy. Refer if necessary. If a baby is unable to suckle, he may need special care in hospital. Help his mother to express her breastmilk to feed to him by cup or by tube, until he is able to breastfeed again.
- *For pain:* For a bruise: help the mother to find a way to hold the baby without pressing on a painful place.
- *For thrush:* Treat with nystatin.
- *For teething:* Encourage her to be patient and to keep offering him her breast.
- *For a blocked nose:* Explain how she can clear it. Suggest short feeds, more often than usual for a few days.
- *For sedation:* If the mother is on regular medication, try to find an alternative.
- *Breastfeeding technique:* Discuss the reason for the difficulty with the mother. When her baby is willing to breastfeed again, you can help her more with her technique.
- *Changes which upset a baby:* Discuss the need to reduce separation and changes if possible. Suggest that she stops using the new soap, perfume, or food.
- *Apparent refusal:*
 - *If it is rooting:* Explain that this is normal. She can hold her baby at her breast to explore her nipple. Help her to hold him closer, so that it is easier for him to attach.
 - *If it is distraction:* Suggest that she try to feed him somewhere quieter for a while. The problem usually passes.
 - *If it is self-weaning:* suggest that she:
 - Makes sure that the child eats enough family food.
 - Gives him plenty of extra attention in other ways.
 - Continues to sleep with him because night feeds may continue.

Step 2. Help the mother and baby to enjoy breastfeeding again:

This is difficult and can be hard work. You cannot force a baby to breastfeed. The mother needs help to feel happy with her baby and to enjoy breastfeeding. They have to learn to enjoy close contact again. She needs you to build her confidence, and to give her support. Help the mother to do these things:

- Keep her baby close to her all the time.
 - She should care for her baby herself as much of the time as possible.

- Ask grandmothers and other helpers to help in other ways, such as doing the housework, and caring for older children.
- She should hold her baby often, and give plenty of skin-to-skin contact at times other than feeding times.
- She should sleep with him.
- If the mother is employed, she should take leave from her employment—sick leave if necessary.
- It may help if you discuss the situation with the baby's father, grandparents, and other helpful people.
- Offer her breast whenever her baby is willing to suckle.
 - She should not hurry to breastfeed again, but offer the breast if her baby does show an interest.
 - He may be more willing to suckle when he is sleepy or after a cup feed, than when he is very hungry. She can offer her breast in different positions.
 - If she feels her ejection reflex working, she can offer her breast then.
- Help her baby to breastfeed in these ways:
 - Express a little milk into her baby's mouth.
 - Position him well, so that it is easy for him to attach to the breast.
 - She should avoid pressing the back of his head, or shaking her breast.
- Feed her baby by cup until he is breastfeeding again.
 - She can express her breastmilk and feed it to her baby from a cup (or cup and spoon). If necessary, use artificial feeds, and feed them by cup.
 - She should avoid using bottles, teats, and pacifiers (dummies) of any sort.

Session 12: Expressing breastmilk

Learning objectives

After completing this session participants will be able to:

- List the situations when expressing breastmilk is useful.
- Explain how to stimulate the oxytocin reflex and demonstrate by rubbing a mother's back.
- Demonstrate how to select and prepare a container for expressed breastmilk.
- Describe how to store breastmilk.
- Explain to a mother the steps of expressing breastmilk by hand.

Preparation

- Make sure that **Slides 12/1 through 12/2** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Obtain some examples of suitable containers to collect expressed breastmilk, which would be available to ordinary mothers (for example, cups and jars).
- Samples of any breast pumps that are available in the area, from hospitals, or from shops. (If none are available or used, do not give this demonstration.)
- Ask a participant to help you to demonstrate back massage to stimulate the oxytocin reflex. Explain what you want her to do.

Suggested time: 45 minutes

Session guide

Ask: Do you know women who express their breastmilk? What are some reasons why women would express their breastmilk?

Write participants' ideas on a board. Try to develop a list with most of the ideas below. After a few minutes, if participants cannot think of any more, complete the list for them.

Expressing milk is useful to:

- Leave breastmilk for a baby when his mother goes out or goes to work.
- Feed a low-birthweight baby who cannot breastfeed.
- Feed a sick baby, who cannot suckle enough.
- Keep up the supply of breastmilk when a mother or a baby is ill.
- Prevent leaking when a mother is away from her baby.
- Help a baby to attach to a full breast.
- Help with breast health conditions, e.g., engorgement (see Session 15).
- Facilitate the transition to another method of feeding or to heat-treat breastmilk (see sessions on HIV and infant feeding).

Explain the following:

- There are many situations in which expressing breastmilk is useful and important to enable a mother to initiate or to continue breastfeeding.
- All mothers should learn how to express their milk, so that they know what to do if the need arises. Certainly all those who care for breastfeeding mothers should be able to teach mothers how to express their milk.
- Breastmilk can be stored for about 8 hours at room temperature or up to 24 hours in a refrigerator. Store expressed breastmilk in the coolest part of the home and away from any heat source.

Ask: Why is it helpful to stimulate a mother's oxytocin reflex before she expresses milk?

Wait for a few replies and then encourage participants to remember what they learnt about how breastfeeding works. Give them a minute to think and make a few suggestions, then continue.

- It is important that the oxytocin reflex works to make the milk flow from her breasts.
- The oxytocin reflex may not work as well when a mother expresses as it does when a baby suckles. A mother needs to know how to help her oxytocin reflex, or she may find it difficult to express her milk.

Ask: What ways can you think of to stimulate the oxytocin reflex?

Wait for a few replies. Participants should mention all of the following. Present them if they do not.

Help the mother psychologically:

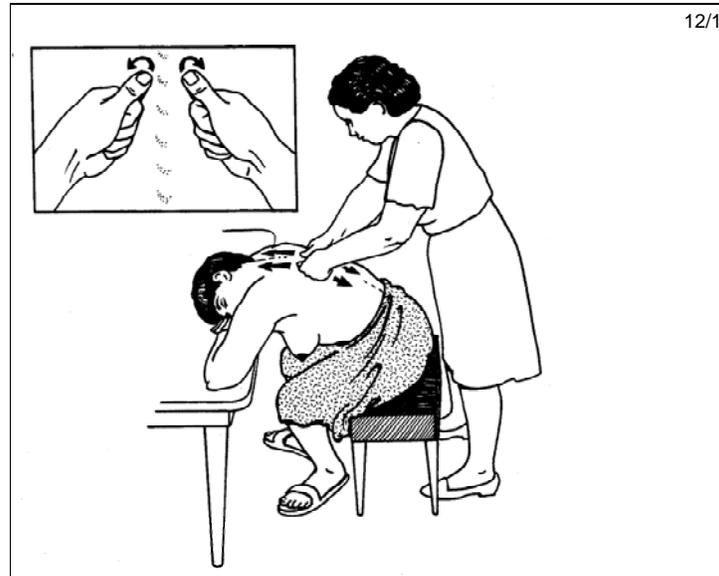
- Build her confidence.
- Try to reduce any sources of pain or anxiety.
- Help her to have good thoughts and feelings about the baby.

Help the mother practically. Help or advise her to:

- Sit quietly and privately or with a supportive friend. Some mothers can't express easily in a group of other mothers who are also expressing for their babies.
- Hold her baby with skin-to-skin contact if possible. She can hold her baby on her lap while she expresses. If this is not possible, she can look at the baby. If this is not possible, sometimes even looking at a photograph of her baby helps.
- Warm her breasts. For example, she can apply a warm compress, or warm water, or have a warm shower. Warn her that she should test the temperature to avoid burning herself.
- Stimulate her nipples. She can gently pull or roll her nipples with her fingers.
- Massage or stroke her breasts lightly. Some women find that it helps if they stroke the breast gently with finger tips. Some women find that it helps to gently roll their closed fist over the breast towards the nipple.
- Ask a helper to rub her back.

Demonstration 1: How to rub a mother's back to stimulate the oxytocin reflex
Show Slide 12/1, which illustrates the technique. Ask a participant to help you.

Slide 12/1. A helper rubbing a mother's back



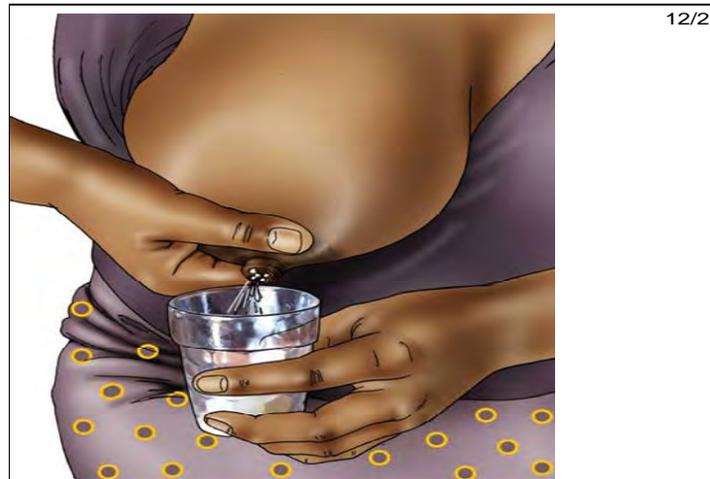
- She should sit at the table resting her head on her arms, as relaxed as possible.
- She remains clothed, but you should explain that with a mother it is important for her breasts and her back to be naked.
- Make sure that the chair is far enough away from the table for her breasts to hang free.
- Explain what you will do, and ask her permission to do it.
- Rub both sides of her spine with your thumbs, making small circular movements, from her neck to her shoulder blades.

Ask her how she feels, and if it makes her feel relaxed. Then, ask participants to work in pairs and briefly practise the technique of rubbing a mother's back.

Make these points:

- Hand expression is the most useful way to express milk. It needs no appliance, so a woman can do it anywhere, at any time.
- A woman should express her own breastmilk. The breasts are easily hurt if another person tries.
- If you are showing a woman how to express, show her on your own body as much as possible, while she copies you. If you need to touch her to show her exactly where to press her breast, be very gentle.

Show **Slide 12/2. How to express breastmilk.**



Explain the following:

- Place finger and thumb on each side of the areola and press inwards towards the chest wall.
- Press behind the nipple and areola between your finger and thumb.
- Press from the sides to empty all segments.

Demonstration 2: How to express breastmilk

Explain how to prepare a container for the expressed breastmilk.

- Show participants some of the containers to hold the expressed breastmilk that you have collected. Go through the following points:
 - Choose a cup, glass, jug, or jar with a wide mouth.
 - Wash the cup in soap and water. (She can do this the day before).
 - Pour boiling water into the cup, and leave it for a few minutes. Boiling water will kill most of the germs.
 - When ready to express milk, pour the water out of the cup.

Give the demonstration of how to express breastmilk by hand.

- Demonstrate as much as possible on your own body. If you prefer not to use your own body, use a model breast, or practise on the soft part of your arm or cheek. You can draw a nipple and areola on your arm.

Explain that health workers should teach a mother to do this herself. Do not express her milk for her. Touch her only to show her what to do, and be gentle.

Review the following steps for a mother expressing breastmilk:

- Wash her hands thoroughly.
- Sit or stand comfortably, and hold the container near her breast.
- Put her thumb on her breast ABOVE the nipple and areola, and her first finger on the breast BELOW the nipple and areola, opposite the thumb. She supports the breast with her other fingers (see Slide 13/2).
- Press her thumb and first finger slightly inwards towards the chest wall. She should avoid pressing too far or she may block the milk ducts.
- Press her breast behind the nipple and areola between her finger and thumb. She should press on the larger ducts beneath the areola. Sometimes in a lactating breast it is possible to feel the ducts. They are like pods, or peanuts. If she can feel them, she can press on them.

- Press and release, press and release. This should not hurt—if it hurts, the technique is wrong.
- At first no milk may come, but after pressing a few times, milk starts to drip out. It may flow in streams if the oxytocin reflex is active.
- Press the areola in the same way from the SIDES, to make sure that milk is expressed from all segments of the breast.
- Avoid rubbing or sliding her fingers along the skin. The movement of the fingers should be more like rolling.
- Avoid squeezing the nipple itself. Pressing or pulling the nipple cannot express the milk. It is the same as the baby sucking only the nipple.
- Express one breast for at least 3–5 minutes until the flow slows; then express the other side; and then repeat both sides. She can use either hand for either breast, and change when they tire.
- Explain that to express breastmilk adequately takes 20–30 minutes, especially in the first few days when only a little milk may be produced. It is important not to try to express in a shorter time.

Ask: How often should a mother express her breastmilk?

Wait for a few replies and then continue.

Explain that it depends on the reason for expressing the milk, but usually as often as the baby would breastfeed.

- She should express as much as she can as often as her baby would breastfeed. This should be at least every 3 hours, including during the night. If she expresses only a few times, or if there are long intervals between expressions, she may not be able to produce enough milk.
- To establish lactation, to feed a low-birthweight or sick newborn: She should start to express milk on the first day, as soon as possible after delivery. She may only express a few drops of colostrum at first, but it helps breastmilk production to begin, in the same way that a baby suckling soon after delivery helps breastmilk production to begin.
- To keep up her milk supply to feed a sick baby: She should express at least every 3 hours.
- To build up her milk supply, if it seems to be decreasing after a few weeks: Express very often for a few days (every 2 hours or even every hour), and at least every 3 hours during the night.
- To leave milk for a baby while she is out at work: Express as much as possible before she goes to work, to leave for her baby. It is also very important to express while at work to help keep up her supply.
- To relieve symptoms, such as engorgement, or leaking at work: Express only as much as is necessary.

Ask participants to practise the technique. Ask them to practise the rolling action of the fingers on a model breast or on their arms. Ask them to make sure that they avoid pinching. Ask them to practise on their own bodies privately later.

Ask participants if they have any questions, and try to answer them.

Remind participants that:

- Hand expression is the most useful way to express breastmilk. It is less likely to carry infection than a pump, and is available to every woman at any time. It is important for women to learn to express their milk by hand, and not to think that a pump is necessary.
- To express milk effectively, it is helpful to stimulate the oxytocin reflex and to use a good technique.

Session 13: Cup feeding

Learning objectives

After completing this session participants will be able to:

- List the advantages of cup feeding.
- Estimate the amount of milk to give to a baby according to weight.
- Demonstrate how to cup-feed safely.

Preparation

- A small cup, which holds approximately 60 ml of water.
- A cloth.
- A doll.
- Flip chart.
- Markers.
- For the demonstration, see if you can find a mother and baby who would be willing to assist in the demonstration. If this is not possible, participants can also practice this skill at their next site visit.

Suggested time: 30 minutes

Session guide

Ask: Why are cups safer and better than bottles for feeding a baby?

Wait for a few replies and then continue. Make the points which have not been mentioned.

- Cups are easy to clean with soap and water, if boiling is not possible.
- Cups are less likely than bottles to be carried around for a long time. Bottles that are carried around give bacteria time to breed.
- Cup-feeding is associated with less risk of diarrhoea, ear infections, and tooth decay.
- A cup cannot be left beside a baby, for the baby to feed himself. The person who feeds a baby by cup has to hold the baby and look at him, and give him some of the contact that he needs.
- A cup does not interfere with suckling at the breast.
- A cup enables a baby to control his own intake.

Demonstration: Cup-feeding

Follow these steps for the demonstration:

- Put some water into one of the small cups. Use approximately 60 ml of water, to demonstrate the typical volume of milk used for one feed for a young baby.
- Hold a doll on your lap, closely, with it sitting upright or semi-upright. Explain that a baby should not lie down too much.
- Hold the small cup or glass to the doll's lips. Tip it so that the water just reaches the lips. Point out that the edges of the cup touch the outer part of the baby's upper lip, and the cup rests lightly on his lower lip. This is normal when a person drinks.
- *Explain that at this point, a real baby becomes quite alert, and opens his mouth and eyes. He makes movements with his mouth and face, and he starts to take the milk into his mouth with his tongue. Babies older than about 36 weeks gestation will try to suck.*
- Some milk may spill from the baby's mouth. You may want to put a cloth on the baby's front to protect his clothes. Spilling is commoner with babies of more than about 36 weeks gestation, and less common with smaller babies.
- You should not pour the milk into a baby's mouth—just hold the cup to his lips.

- *Explain that when a baby has had enough, he closes his mouth and will not take any more this feed. If he has not taken the calculated amount, he may take more next time, or he may need feeds more often. Measure his intake over 24 hours, not just at each feed.*
- Demonstrate with a doll what happens when you try to feed a baby with a spoon. You need to hold the cup and the spoon, or you need to put the cup down and take milk from it. The procedure is more awkward.

The following list is a reference for the participants.

HOW TO FEED A BABY BY CUP

- Wash your hands.
- Hold the baby sitting upright or semi-upright on your lap.
- Place the estimated amount of milk for one feed into the cup.
- Hold the small cup of milk to the baby's lips.
- Tip the cup so that the milk just reaches the baby's lips.
- The cup rests lightly on the baby's lower lip, and the edges of the cup touch the outer part of the baby's upper lip.
- The baby becomes alert, and opens his mouth and eyes.
- A low-birthweight baby starts to take the milk into his mouth with his tongue.
- A full term or older baby sucks the milk, spilling some of it.
- **DO NOT POUR** the milk into the baby's mouth. Just hold the cup to his lips and let him take it himself.
- When the baby has had enough, he closes his mouth and will not take any more. If he has not taken the calculated amount, he may take more next time, or you may need to feed him more often.
- Measure his intake over 24 hours—not just at each feed.

Session 14: Breast conditions

Learning objectives

After completing this session participants will be able to recognise and manage these common breast conditions:

- Flat and inverted nipples.
- Engorgement.
- Blocked duct and mastitis.
- Sore nipples and nipple fissure.

Preparation:

- Make sure that **Slides 14/1 through 14/11** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Syringe, 20 ml, with the adaptor end of the barrel removed.
- Breast model.

Suggested time: 50 minutes

Session guide

Show **Slide 14/1**.



Explain that here are some breasts of different shapes and sizes. These breasts are all normal, and they can all produce plenty of milk for a baby—or two or even three babies. Many mothers worry about the size of their breasts. Women with small breasts often worry that they cannot produce enough milk.

Ask: Think back to Session 3 when we looked at the anatomy of the breast. What is it that makes some breasts large and others small?

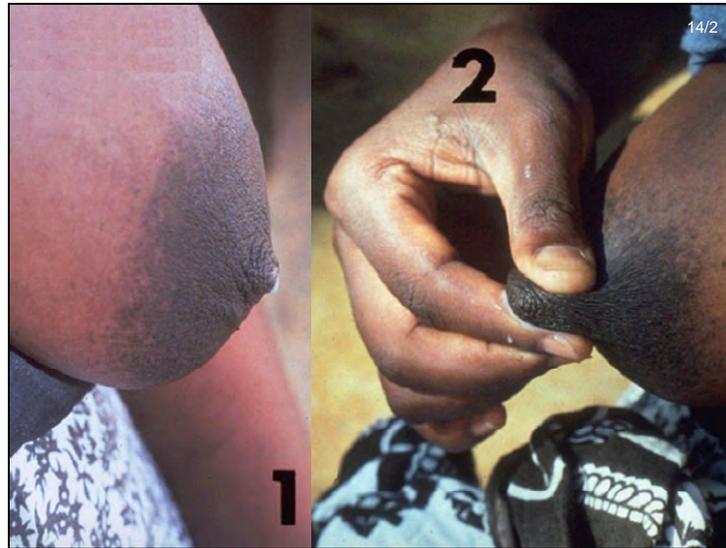
Wait for a few replies and then explain that differences in the sizes of breasts are mostly due to the amount of fat, and not the amount of tissue that produces milk. It is important to

reassure women that they can produce enough milk, whatever the size of their breasts. The nipples and areolas are different shapes and sizes too.

Ask: Does the size or shape of the nipple affect breastfeeding?

Wait for a few replies and then explain that sometimes the shape makes it difficult for a baby to get well attached to the breast. The mother may need extra help at first to make sure that her baby can suckle effectively. However, babies can breastfeed quite well from breasts of any size, with almost any shape of nipple.

Show **Slide 14/2**.



Ask: What do you think of the nipple in picture 1? (It looks flat.)

Explain that a doctor told this mother that her baby would not be able to suckle from it. She lost confidence that she could breastfeed successfully. However, remember from Session 3 that a baby does not suck from the nipple. He takes the nipple and the breast tissue underlying the areola into his mouth to form a 'teat.'

In Picture 2, the mother is testing her breast to see how easy it is to stretch out the tissues underlying the nipple. This nipple is quite 'protractile,' and it should be easy for her baby to stretch it to form a 'teat' in his mouth. He should be able to suckle from this breast with no difficulty. Nipple protractility (if the nipple can be stretched or lengthened) is more important than the shape of a nipple. Protractility improves during pregnancy, and in the first week or so after a baby is born. So even if a woman's nipples look flat in early pregnancy, her baby may be able to suckle from the breast without difficulty.

Show **Slide 14/3**.



Ask: What do you think of this nipple? Wait for a few replies and then continue.

- The nipple is **inverted**.
- If this woman tests her breast for protractility, her nipple will go in instead of coming out.

Ask: What else do you notice about the breast? Wait for a few replies and then continue.

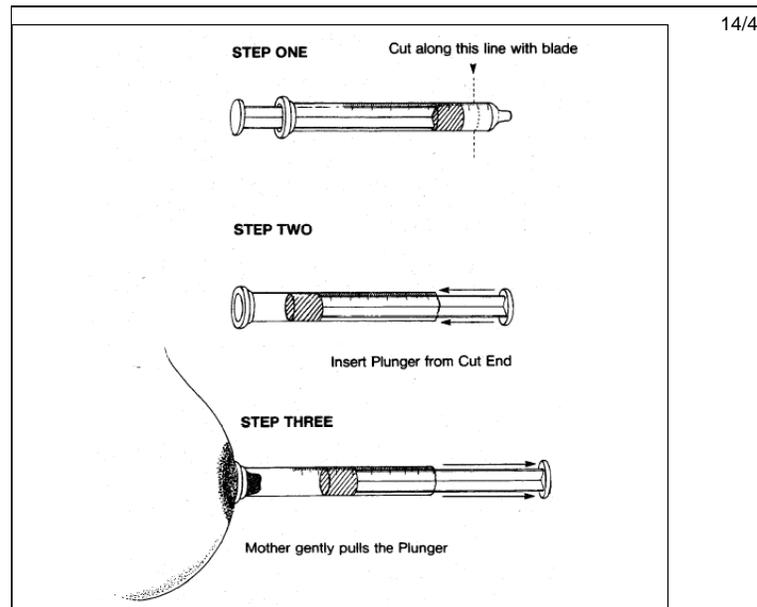
Explain the following: You can see a scar on her breast. This mother had a **breast abscess**. This was probably because her baby did not attach well to the breast and remove the milk effectively. With skilled help, she probably could have breastfed successfully. Fortunately, nipples as difficult as this are rare.

Ask: How can you help a woman with inverted nipples?

Be sure participants mention the following:

- Antenatal treatment is probably not helpful. Most nipples improve around the time of delivery without any treatment. Help is most important soon after delivery when the baby starts breastfeeding.
- It is important to build the mother's confidence. Explain that with patience and persistence she can succeed. Explain that her breasts will become softer in the week or two after delivery, and that the baby suckles from the breast and not from the nipple. Encourage her to give plenty of skin-to-skin contact (we will be discussing this further later in this training).
- If a baby does not attach well by himself, help his mother to position him so that he can attach better. Give her this help early, in the first day, before her breastmilk 'comes in' and her breasts are full. Sometimes putting a baby to the breast in a different position, for example, the underarm position, makes it easier for him to attach.
- If a baby cannot suckle effectively in the first week or two, help his mother to try to express her milk and feed it to her baby by cup. Expressing milk also helps to keep the breasts soft, so that it is easier for the baby to attach. Expressing milk also helps to keep up the supply of milk. She should not use a bottle because that makes it more difficult for her baby to take her breast.

Show **Slide 14/4**.



Explain that the syringe method for treating inverted nipples can be used after a woman gives birth to help a baby to attach to the breast. It is not certain whether it is helpful during antenatal care. Demonstrate using a syringe and a breast model.

- Show participants the 20 ml syringe that you have prepared, and explain how you cut off the adaptor end of the barrel.
- Put the plunger into the cut end of the barrel (that is, the reverse of its usual position).
- Use a model breast, and put the smooth end of the barrel over the nipple. Pull out the plunger to create suction on the nipple.
- Explain that with a real breast, there is an airtight seal, and the nipple is drawn out into the syringe.
- Explain that the mother must use the syringe herself.
- Explain that you would teach her to:
 - Put the smooth end of the syringe over her nipple, as you demonstrated.
 - Gently pull the plunger to maintain steady but gentle pressure.
 - Do this for 30 seconds to 1 minute, several times a day.
 - Push the plunger back to decrease the suction, if she feels pain. This prevents damaging the skin of the nipple and areola.
 - Push the plunger back, to reduce suction, when she removes the syringe from her breast.
 - Use the syringe to make her nipple stand out just before she puts her baby to the breast.

Show **Slide 14/5**.



Ask: What conditions are shown in Picture 1 and Picture 2?
Wait for a few replies.

The woman in Picture 1 has full breasts. This is a few days after delivery, and her milk has 'come in.' Her breasts feel hot, heavy, and hard. However, her milk is flowing well. You can see that milk is dripping from her breasts. This is normal fullness. Sometimes full breasts feel quite lumpy. The only treatment that she needs is for her baby to breastfeed frequently, to remove the milk. The heaviness, hardness, or lumpiness decreases after a feed, and the breasts feel softer and more comfortable. In a few days, her breasts will adjust to the baby's needs, and they will feel less full.

The woman in Picture 2 has engorged breasts. Engorgement means that the breasts are overfull, partly with milk, and partly with increased tissue fluid and blood, which interferes with the flow of milk. The breast in this picture looks shiny, because it is oedematous. Her breasts feel painful, and her milk does not flow well.

Ask: What do you notice about the nipple?
Wait for a few replies.

Explain that it is flat, because the skin is stretched tight. When a nipple is stretched tight and flat like this, it is difficult for a baby to attach to it, and to remove the milk. Sometimes when breasts are engorged, the skin looks red, and the woman has a fever. This may make you think that she has mastitis. However, the fever usually settles in 24 hours. It is important to be clear about the difference between full and engorged breasts. Engorgement is not so easy to treat.

Show Slide 14/6 and ask one participant to read out the points in the column entitled 'Full breasts' and another participant to read out the points in the column entitled 'Engorged breasts.'

Slide 14/6.

14/6

DIFFERENCES BETWEEN FULL AND ENGORGED BREASTS	
Full Breasts Hot Heavy Hard Milk flowing No fever	Engorged Breasts Painful Oedematous Tight, especially nipple Shiny May look red Milk NOT flowing May be fever for 24 hours

Ask: What are reasons that breasts may become engorged?

Make the following points if they have not been mentioned by the participants:

- Delay in starting breastfeeding after birth.
- Poor attachment to the breast so breastmilk is not removed effectively.
- Infrequent removal of milk—for example, if breastfeeding is not on demand.
- Restricting the length of breast feeds.

Engorgement can be prevented by letting babies feed as soon as possible after delivery; making sure that the baby is well positioned and attached to the breast; and encouraging unrestricted breastfeeding so that milk does not then build up in the breast.

Ask: Has anyone ever helped a woman with engorged breasts? What did you do?

Allow a couple of participants to share their experiences.

Present the information on **Slide 14/7** and ask participants if they have any questions.

14/7
TREATMENT OF BREAST ENGORGEMENT
<ul style="list-style-type: none">• Do not 'rest' the breast. To treat engorgement it is essential to remove milk. If milk is not removed, mastitis may develop, an abscess may form and breast milk production decreases.• If baby is able to suckle he should feed frequently. This is the best way to remove milk. Help the mother to position her baby, so that he attaches well. Then he suckles effectively, and does not damage the nipple.• If baby is not able to suckle help his mother to express her milk. Sometimes it is only necessary to express a little milk to make the breast soft enough for the baby to suckle.• Before feeding or expressing, stimulate the mother's oxytocin reflex. Some things that you can do to help her, or she can do are:<ul style="list-style-type: none">• put a warm compress on her breasts• massage her back and neck• massage her breast lightly• stimulate her breast and nipple skin• help her to relax• sometimes a warm shower or bath makes milk flow from the breasts so that they become soft enough for the baby to suckle.• After a feed, put a cold compress on her breasts. This will help to reduce oedema.• Build the mother's confidence. Explain that she will soon be able to breastfeed comfortably again.

Make the following points:

- We have just discussed the management of engorgement in a woman who wishes to continue breastfeeding.
- Engorgement may occur in an HIV-positive woman who stops breastfeeding, for example, if replacement feeding becomes acceptable, feasible, affordable, sustainable, and safe (AFASS) when her baby is 6 months or older and she decides to stop breastfeeding.
- When an HIV-positive mother is trying to stop breastfeeding she should only express enough milk to relieve the discomfort and not to increase the milk production.
- Milk may be expressed a few times per day when the breasts are overfull to make the mother comfortable.
- You may have heard of pharmacological treatments to reduce the milk supply. These are not recommended. However, a simple analgesic, for example, ibuprofen, may be used to reduce inflammation and help the discomfort whilst the mother's milk supply is decreasing. If ibuprofen is not available then paracetamol may be used.

Show **Slide 14/8**.



Ask: What do you notice about this breast?

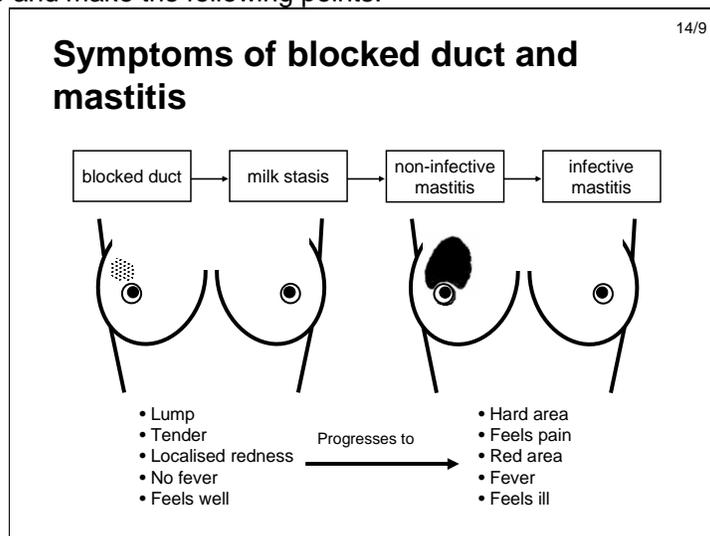
Wait for a few replies. Participants should mention that part of the breast looks red and swollen. There is a fissure on the tip of the nipple.

Ask: What condition is this?

Wait for a few replies and then continue.

- This is **mastitis**.
- The woman has severe pain and a fever and she feels ill. Part of the breast is swollen and hard, with redness of the overlying skin.
- Mastitis is sometimes confused with engorgement.
- However, engorgement affects the whole breast, and often both breasts. Mastitis affects part of the breast, and usually only one breast.
- Mastitis may develop in an engorged breast, or it may follow a condition called blocked duct.

Show **Slide 14/9** and make the following points:



This slide shows how mastitis develops from a blocked duct.

- A blocked duct occurs when the milk is not removed from part of a breast. Sometimes this is because the duct to that part of the breast is blocked by thickened milk.
- The symptoms are a lump that is tender and often redness of the skin over the lump.
- The woman has no fever and feels well.
- When milk stays in part of a breast, because of a blocked duct, or because of engorgement, it is called milk stasis. If the milk is not removed, it can cause inflammation of the breast tissue, which is called non-infective mastitis.
- Sometimes a breast becomes infected with bacteria, and this is called infective mastitis.
- It is not possible to tell from the symptoms alone if mastitis is non-infective or infective.
- If the symptoms are all severe, however, the woman is more likely to need treatment with antibiotics.

Ask: What causes mastitis or a blocked duct?

Encourage participants to discuss, noting their comments on a flip-chart sheet.

Be sure the following are mentioned:

- The main cause of a blocked duct is poor drainage of all or part of a breast.
- Poor drainage of the whole breast may be due to infrequent breastfeeds or ineffective suckling.
 - Infrequent breastfeeds may occur when a mother is very busy, when a baby starts feeding less often, for example, when he starts to sleep through the night, or because of a changed feeding pattern for another reason; for example, the mother returning to work.
 - Ineffective suckling usually occurs when the baby is poorly attached to the breast.
- Poor drainage of part of the breast may be due to ineffective suckling, pressure from tight clothes, especially a bra worn at night, or pressure of the mother's fingers which can block milk flow during a breastfeed.
- Remember that if a baby is poorly attached and positioned and is suckling at the breast, this may cause a nipple fissure which provides a way for bacteria to enter the breast tissue and may lead to mastitis.

Ask: Have you ever treated a woman with mastitis or a blocked duct? What did you do?

Encourage a couple of participants to share their experiences. Present the following information:

- The most important part of treatment is to improve the drainage of milk from the affected part of the breast.
- Look for a cause of poor drainage and correct it. Look for poor attachment, pressure from clothes (particularly a tight bra) and notice what the mother does with her fingers as she breastfeeds. Does she hold the areola and possibly block milk flow?
- Whether or not you find a cause, there are several suggestions to offer to the mother.
 - Breastfeed frequently. The best way is to rest with her baby, so that she can respond to him and feed him whenever he is willing.
 - Gently massage the breast while her baby is suckling. Show her how to massage over the blocked area right down to the nipple. This helps to remove the block from the duct.
 - She may notice that a plug of thick material comes out with her milk. This is safe for the baby to swallow.
 - Apply warm compresses to her breast between feeds.

- Sometimes it is helpful to start the feed on the unaffected breast. This may help if pain seems to be preventing the oxytocin reflex. Change to the affected breast after the reflex starts working. Try feeding the baby in different positions.
- Sometimes a mother is unwilling to feed her baby from the affected breast, especially if it is very painful. In these situations it is necessary to express the milk. If the milk stays in the breast, an abscess is more likely to develop.
- Usually blocked duct or mastitis improves within a day when drainage to that part of the breast improves.
- However, a mother needs additional treatment if there are any of the following:
 - Severe symptoms when you first see her.
 - A fissure through which bacteria may enter.
 - No improvement after 24 hours of improved drainage. (Note: The recommended antibiotics and doses are available in the Trainer's Notes section at the end of this chapter.)

Explain that in a woman who is HIV-infected, mastitis or nipple fissure (especially if bleeding or oozing) may increase the risk of HIV transmission. Therefore, the recommendation to increase the frequency and duration of feeds in mastitis is not appropriate for these women.

Ask: If a woman who is HIV-infected gets mastitis or a fissure, what should she do?

Allow participants to discuss and present the following information:

- If an HIV-infected woman develops mastitis or a fissure she should avoid breastfeeding from the affected side while the condition persists. It is the same if she develops an abscess.
- She must express milk from the affected breast, to ensure adequate removal of milk.
- This is essential to prevent the condition from becoming worse, to help the breast recover, and to maintain milk production. The health worker should help her to ensure that she is able to express milk effectively.
- If only one breast is affected, the infant can feed from the unaffected side, feeding more often and for longer to increase milk production. Most infants get enough milk from one breast. The infant can feed from the affected breast again when it has recovered.
- If both breasts are affected, she will not be able to feed from either side. The mother will need to express her milk from both breasts. Breastfeeding can resume when the breasts have recovered.
- The health worker will need to discuss other feeding options for her to give meanwhile. The mother may decide to heat-treat her expressed milk, or to give commercial formula. The infant should be fed by cup.
- Give antibiotics for 10 to 14 days to avoid relapse. Give pain relief and suggest rest as in the HIV-uninfected woman.
- Sometimes a woman may decide to stop breastfeeding at this time, if she is able to give another form of milk safely. She should continue to express enough milk to allow her breasts to recover and to keep them healthy, until milk production ceases.

Show Slide 14/10



Explain that Picture 1 shows a mother's breast, and Picture 2 shows the same mother feeding her baby on the breast.

Ask: What do you notice about her breast?

Wait for a few replies and then explain that there is a fissure, or crack, around the base of the nipple. You may be able to see that the breast is also engorged.

Ask: What do you notice about the baby's position and attachment?

Wait for a few responses and then continue. Encourage participants to think systematically through the four key points of positioning and attachment. Ask participants to turn to their manuals and find the BREASTFEED OBSERVATION JOB AID.

- The baby is poorly positioned.
 - His body is twisted away from his mother so his head and body are not in line.
 - His body is not held close to his mother's.
 - His body is unsupported.
 - He is poorly attached.
 - There is more areola seen above baby's top lip.
 - His mouth is closed, and his lips are pointing forwards.
 - His lower lip is pointing forward.
 - His chin is not touching the breast.

Explain that this poor attachment may have caused both the breast engorgement and the fissure.

- **The most common cause of sore nipples is poor attachment.**
- If a baby is poorly attached, he pulls the nipple in and out as he sucks, and rubs the skin of the breast against his mouth. This is very painful for his mother.
- At first there is no fissure. The nipple may look normal; or it may look squashed with a line across the tip when the baby releases the breast. If the baby continues to suckle in this way, it damages the nipple skin, and causes a fissure.
- If a woman has sore nipples:
 - Suggest to the mother not to wash her breasts more than once a day, and not to use soap or rub hard with a towel. Washing removes natural oils from the skin and makes soreness more likely.

- Suggest to the mother not to use medicated lotions and ointments, because these can irritate the skin, and there is no evidence that they are helpful.
- Suggest that after breastfeeding she rubs a little expressed breast milk over the nipple and areola with her finger. This promotes healing.

Show **Slide 14/11**



Explain that the mother in Slide 14/11 has very sore, itchy nipples.

Ask: What do you see that might explain the soreness?

Wait for a few replies and then present the following:

- There is a shiny red area of skin on the nipple and areola.
- This is a Candida infection, or thrush, which can make the skin sore and itchy. Candida infections often follow the use of antibiotics to treat mastitis, or other infections.
- Some mothers describe burning or stinging which continues after a feed. Sometimes the pain shoots deep into the breast. A mother may say that it feels as though needles are being driven into her breast.
- The skin may look red, shiny, and flaky. The nipple and areola may lose some of their pigmentation. Sometimes the nipple looks normal.
- Suspect Candida if sore nipples persist, even when the baby's attachment is good.
- Check the baby for thrush. He may have white patches inside his cheeks or on his tongue, or he may have a rash on his bottom.
- Treat both mother and baby with nystatin.
- Advise the mother to stop using pacifiers (dummies). Help her to stop using teats and nipple shields.
- In women who are HIV-infected it is particularly important to treat breast thrush and oral thrush in the infant promptly.

Ask participants if they have any questions, and try to answer them.

Trainer's notes

Participants may wish to discuss breast conditions in more detail. Share the following as needed.

Breast shape:

Breast shape and size are partly inherited. Breasts may be long in girls who have had no children and small or flat in women who have breastfed several children. Occasionally a woman's breasts may fail to develop normally, so that they are unable to produce enough milk, but this is very rare.

Management of inverted nipples:

Participants may have heard of different ways to treat inverted nipples, and they may wish to discuss the topic further—especially if they have known of a case that they found difficult to help. These notes may help you to answer questions. However, it is not necessary to give participants this information if they have not heard of these techniques.

Nipple shell

This is a glass or plastic hemisphere, with a hole in the base, to put over a nipple, under the clothes. The nipple is pressed through the hole, to make it stand out more. There is no evidence that these shells help, and they may cause oedema. However, if a mother is worried about inverted nipples, and she has heard of nipple shells and wants to try to use one, let her continue. It may make her feel that she is doing something, and it may help her to feel confident.

Hoffman's exercises

Some women have heard of exercises to stretch nipples. These exercises have not been shown to really help. They are unlikely to make much difference to severely inverted nipples. Nipple exercises can sometimes traumatise the breast, so do not recommend them. However, if a woman has heard about exercises and wishes to do them, let her continue.

Nipple shields

These are teats with a broad plastic or glass base to put over a nipple for a baby to suck through. Mothers sometimes use them if they have conditions such as inverted nipples, or sore nipples. Nipple shields are no longer recommended because they can cause problems and they do not remove the cause of the condition. Nipple shields can reduce the flow of milk; they can cause breast infections, including *Candida*; they can cause 'nipple confusion'; and they may make it more difficult for a baby to learn to suckle directly from the breast. Some mothers find it difficult to stop using them. Nipple shields are not useful except in rare cases for a short time and with careful supervision.

Engorgement:

When breasts are engorged, the milk does not flow well, partly because of the pressure of fluid in the breast, and partly because the oxytocin reflex does not work well.

Non-infective mastitis:

The cause of non-infective mastitis is probably milk under pressure leaking back into the surrounding tissues. The tissues treat the milk as a 'foreign' substance. Also, milk contains substances that can cause inflammation. The result is pain, swelling, and fever, even when there is no bacterial infection. Trauma that damages breast tissue can also cause mastitis. This may also be because milk leaks back into the damaged tissues.

Breast abscess:

An abscess is when a collection of pus forms in part of the breast. The breast develops a painful swelling, which feels full of fluid. An abscess needs surgical incision and drainage. If possible, let the baby continue to feed from the breast. There is no danger to the baby. However, if it is too painful, or if the mother is unwilling, show her how to express her milk,

and let her baby start to feed from it again as soon as the pain is less—usually in 2 to 3 days. Meanwhile, continue to feed from the other breast. Good management of mastitis should prevent the formation of an abscess.

Antibiotic treatment for infective mastitis

The most common bacterium found in breast abscess is *Staphylococcus aureus*. Therefore it is necessary to treat breast infections with a penicillinase-resistant antibiotic such as either flucloxacillin or erythromycin.

Drug	Dose	Instructions
Flucloxacillin	250 mg orally 6 hourly for 7–10 days	Take dose at least 30 minutes before food
Erythromycin	250-500 mg orally 6 hourly for 7–10 days	Take dose 2 hours after food

Alternative antibiotics for treatment of infective mastitis

The following antibiotics can be used if necessary:

- Cloxacillin 250-500 mg 6 hourly for 7-10 days.
- Cephalexin 250-500 mg 6 hourly for 7-10 days.

Treatment of candida of the breast:

- **Nystatin** cream 100,000 IU/g: Apply to nipples four times daily after breastfeeds. Continue to apply for 7 days after lesions have healed.
- **Nystatin** suspension 100,000 IU/ml: Apply 1 ml by dropper to child's mouth four times daily after breastfeeds for 7 days, or as long as the mother is being treated.
- **Stop** using pacifiers, teats, and nipple shields.

Treatment of nipples fissures:

- *Ointments for nipple fissure*: Sometimes a plain cream such as lanolin may help a fissured nipple to heal after the suckling position has been corrected. However, plain creams are often not available, and they are not usually necessary.
- *Clothes*: In warm weather, a cotton bra may be better for fissured nipples than a nylon bra. However, cotton is not essential, and you should not recommend it to a mother who cannot afford it. If necessary, suggest that she leaves her bra off for a day or two.
- *Nipple shields*: These are no longer recommended for the treatment of fissured nipples.

Session 15: Overview of HIV and infant feeding

Learning objectives

After completing this session participants will be able to:

- Explain the risk of mother-to-child transmission (MTCT) of HIV at each stage.
- Describe factors that influence MTCT.
- List approaches that can reduce the risk of MTCT during breastfeeding through safer infant-feeding practices.
- State infant-feeding recommendations for women who are HIV positive, for women who are HIV negative, or women who do not know their status.
- Describe the current situation of HIV and prevention of mother-to-child transmission (PMTCT) in Lesotho.
- Use Counselling Card 1: Risk of mother-to-child-transmission of HIV during a counselling session.

Materials and preparation

- Make sure that **Slides 15/1 through 15/8** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip-chart paper.
- Magic markers.
- Tape or other items for affixing papers on walls or chalkboards.
- Make sure that participants have copies of the counselling cards.

Suggested time: 75 minutes

Session guide

Explain the following points:

- Most HIV-infected children become infected through their mothers. MTCT can take place during pregnancy, during labour and delivery, and through breastfeeding.
- The best way to prevent infection of children is to help their fathers and mothers to avoid becoming infected in the first place. Men's responsibility for protecting their families must be emphasised.
- However, many women are already infected, and it is important to try to reduce the risk to their babies. This chapter will focus on reducing the risk during the post-partum period.
- You as a health worker can help an HIV-positive woman decide on the best way to feed her baby in her particular circumstances.

Review the following information with participants:

- HIV, or human immunodeficiency virus, is the virus that causes AIDS.
- AIDS, or acquired immunodeficiency syndrome, is the active pathological condition that follows the earlier, non-symptomatic state of being HIV positive.
- People infected with HIV feel well at first and usually do not know they are infected. They may remain healthy for many years as the body produces antibodies to fight HIV.
- But the antibodies are not very effective. The virus lives inside the immune cells and slowly destroys them.

- When these cells are destroyed, the body becomes less able to fight infections. The person becomes ill and after a time develops AIDS. Eventually he or she dies, unless there are interventions.
- A blood test can be done to see if people have HIV antibodies in their blood. A positive test means that the person is infected with HIV. This is called HIV positive or seropositive.
- Once people have the virus in their body, they can pass the virus to other people.
- HIV is passed from an infected man or woman to another person through:
 - Exchange of HIV-infected body fluids such as semen, vaginal fluid, or blood during unprotected sexual intercourse.
 - HIV-infected blood transfusions or contaminated needles.
- HIV can also pass from an infected woman to her child. This is called MTCT.

Ask: How and when is HIV transmitted from mothers to their children?

Participants should mention:

- During pregnancy across the placenta.
- During labour and delivery through blood and secretions.
- Through breastfeeding.

Ask: How often does mother-to-child transmission of HIV occur? How many mothers and babies are likely to be affected?

Share the following information:

- About 27%¹ of pregnant women in Lesotho are HIV positive. This means that out of 100 women who come in for antenatal care (ANC) services, 27 test positive for HIV.
- Not all babies born to HIV-infected mothers become infected with HIV.

Show **Slide 15/1. Estimated risk and timing of MTCT without interventions**

15/1	
Estimated risk and timing of mother-to-child transmission of HIV without interventions	
Timing of MTCT of HIV	Transmission Rate
• During pregnancy	5-10%
• During labour and delivery	10-15%
• During breastfeeding	5-20%

WHO/UNICEF International Technical Working Group; 2006 Guidelines.²

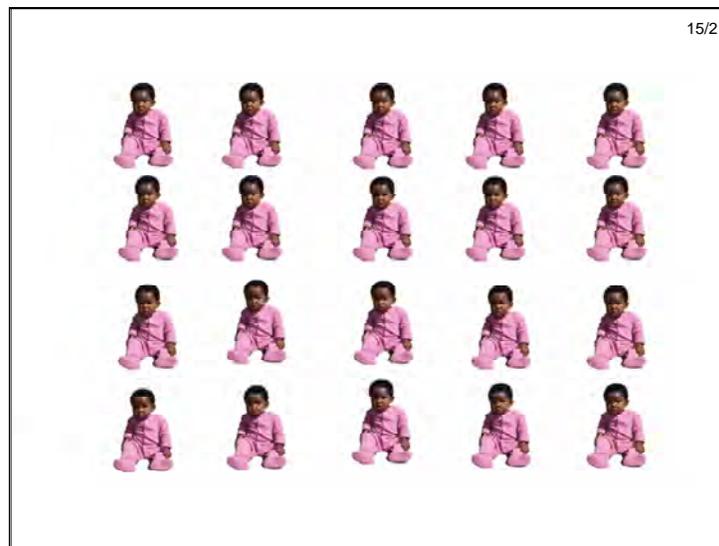
¹ Government of Lesotho Ministry of Health & Social Welfare. PMTCT and Paediatric HIV Scale Up Plan 2007-2011.

² WHO/UNICEF International Technical Working Group; 2006 Guidelines
Infant and Young Child Feeding Curriculum

Explain the following:

- About two-thirds of infants born to HIV-infected mothers will not be infected with HIV, even without interventions such as antiretroviral prophylaxis (ARV) or caesarean section.
- About 15–25% will be infected during pregnancy and birth. About 5–20% of infants born to HIV-infected mothers will get the virus through breastfeeding. The risk continues as long as the mother breastfeeds, and is more or less constant over time.
- Exclusive breastfeeding during the first 6 months of life carries a lower risk of HIV transmission than mixed feeding. Research has shown that the transmission risk at 6 months in exclusively-breastfed babies is lower than in mixed-fed babies.
- The factors that influence the risk of MTCT relate to the virus itself, to the mother herself, to obstetrics, to the foetus, and to the newborn.

Show **Slide 15/2. Estimated rates of MTCT**

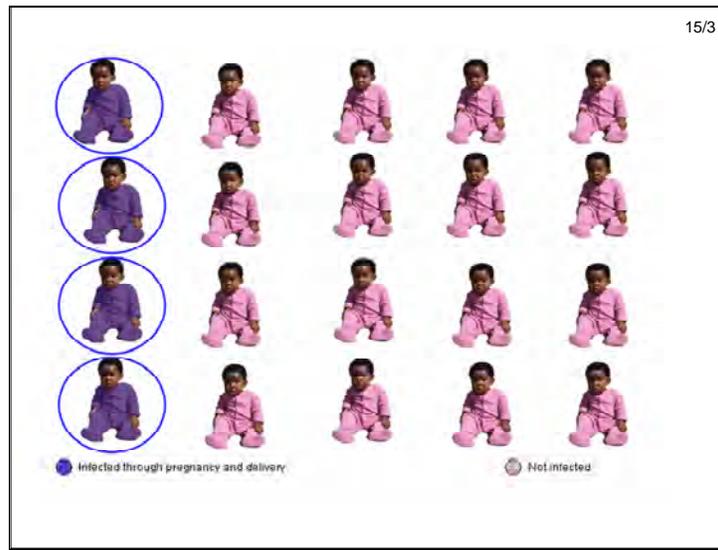


Explain that in this slide you see 20 babies. All these were born to mothers who were tested for HIV and had a positive result.

Ask: The rate of transmission during pregnancy and delivery is around 20% without intervention. How many of these babies would you expect to be infected during pregnancy or delivery?

Wait for a volunteer to give the response and correct as needed. (The response is: 20% of 20 = 4 infants would be infected during pregnancy or delivery.)

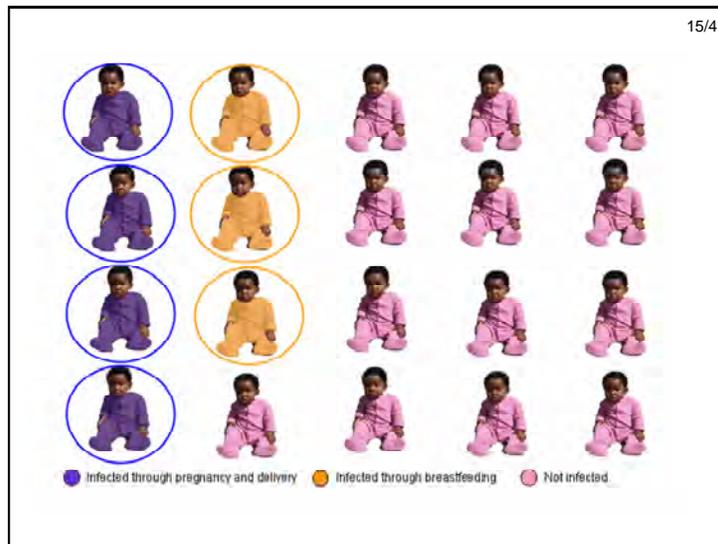
Show **Slide 15/3**.



Ask: *The rate of transmission during breastfeeding can vary from 5–20% depending on how long a mother breastfeeds and whether or not she breastfeeds exclusively. We will use 15% for this example. If these babies are all breastfed, how many will be infected?*

Wait for a volunteer to give the response and correct as needed.
(The response is: 15% of 20 = 3 infants were infected by breastfeeding.)

Show **Slide 15/4**.



Explain that if all HIV-positive mothers were exclusively breastfeeding, the number of infected infants would be less.

Ask: *How many infants who receive no PMTCT intervention will **not** be infected during pregnancy, labour, delivery, or breastfeeding?*

Wait for a volunteer to give the response and correct as needed. (The response is: 65% of 20 = 13 infants will not be infected during pregnancy, labour, delivery, or breastfeeding.)

Ask: *What are some factors that affect mother-to-child transmission of HIV?*
Wait for a few replies and then continue.

Show **Slide 15/5**.

15/5

Factors that affect MTCT

- Recent infection with HIV
- Severity of disease
- Sexually transmitted infections
- Obstetric procedures
- Duration of breastfeeding
- Exclusive breastfeeding or mixed feeding
- Condition of the breasts
- Condition of the baby's mouth

Explain that some of these factors affect transmission of HIV through breastfeeding. Sexually transmitted infections and obstetric procedures only affect transmission during pregnancy or delivery. We will discuss the factors related to HIV transmission through breastfeeding.

- **Recent infection with HIV:** If a woman becomes infected with HIV during pregnancy or while breastfeeding, she has higher levels of virus in her blood, and her infant is more likely to be infected. It is especially important to prevent an HIV-negative woman from becoming infected at this time because then both the woman and her baby are at risk. All sexually active people need to know that unprotected sex exposes them to infection with HIV. They may then infect their partners, and their baby too will be at high risk, if the infection occurs during pregnancy or while breastfeeding. For women who are already infected it is important to protect against re-infection as this can also cause a high viral load, increasing the risk of HIV transmission to the baby.
- **Severity of HIV infection:** If the mother is ill with HIV-related disease or AIDS and is not being treated with drugs for her own health, she has more virus in her body and transmission to the baby is more likely.
- **Duration of breastfeeding:** The virus can be transmitted at any time during breastfeeding. In general, the longer the duration of breastfeeding the greater the risk of transmission.
- **Mixed feeding versus exclusive breastfeeding:** There is evidence that the risk of transmission is greater if an infant is given any other foods or drinks at the same time as breastfeeding in the first 6 months. The risk is less if breastfeeding is exclusive.

Other food or drinks may cause diarrhoea and damage the gut, which might make it easier for the virus to enter the baby's body.

- **Condition of the breasts:** Nipple fissure (particularly if the nipple is bleeding), mastitis, or breast abscess may increase the risk of HIV transmission through breastfeeding. Good breastfeeding technique helps to prevent these conditions, and may also reduce transmission of HIV.
- **Condition of the baby's mouth:** Mouth sores or thrush in the infant may make it easier for the virus to get into the baby through the damaged skin.

Make these additional points:

- This list of factors suggests several strategies that would be useful for all women, whether they are HIV positive or HIV negative. They provide ways to reduce the risk of HIV transmission, which can be adopted for everyone, and they do not depend on knowing women's HIV status.
- Other strategies, such as the avoidance of breastfeeding, can be harmful for babies, so they should only be used if a woman knows that she is HIV positive and has been counselled.

Ask: What are ARVs?

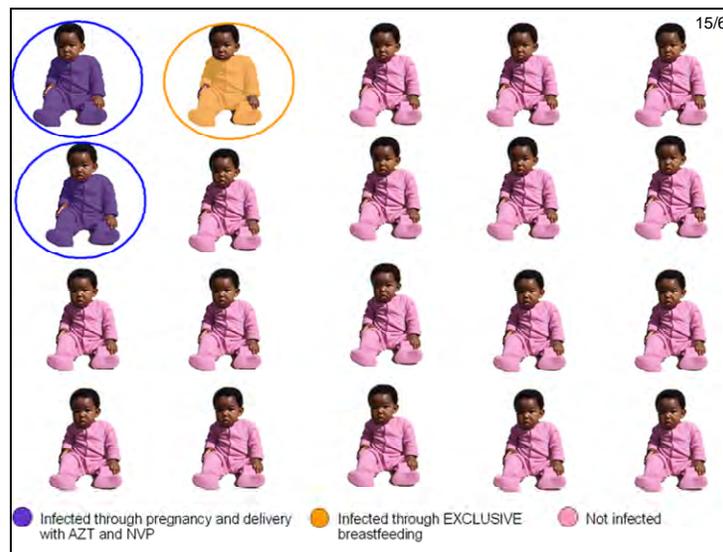
- Response: Antiretroviral drugs. They are used to reduce the amount of HIV in the body.
- Explain that some ARVs you may have heard of are AZT, 3TC (lamivudine), Combivir (3TC + AZT), and Nevirapine (NVP).

Ask: What ARVs are given to HIV-positive pregnant women in Lesotho to prevent MTCT? What ARVs are given to infants? When are they given?

- Women are given AZT, 3TC, and NVP at different times during pregnancy and labour and after delivery depending on when they access services. Infants receive single-dose NVP and AZT for 1 or 4 weeks, depending on the duration of AZT during pregnancy.

Explain the following:

- It has been shown that if a short course of ARV is given to the mother at the end of pregnancy and at the time of delivery, the risk of transmission at that time can be reduced by about half. There are several short ARV regimens, which can be used in different ways. The baby is also given one or more of the ARVs for a short time.
- There are indications that maternal highly active antiretroviral therapy (HAART) for treatment-eligible women may reduce postnatal HIV transmission, based on program data from Botswana, Mozambique, and Uganda; follow-up trial data on the safety and efficacy of this approach, and on infant prophylaxis trials are awaited. However, there are currently no recommendations related to how effective or safe ARVs are in preventing transmission through breastfeeding when given to either the baby or mother over a longer time period.



Explain that this slide shows the risk of transmission is much lower when mothers and infants receive ARV prophylaxis (represented by the purple babies) and when women breastfeed exclusively for the first 6 months (represented by the yellow baby.)

Outline approaches to prevent mother-to-child transmission through breastfeeding

Make these points:

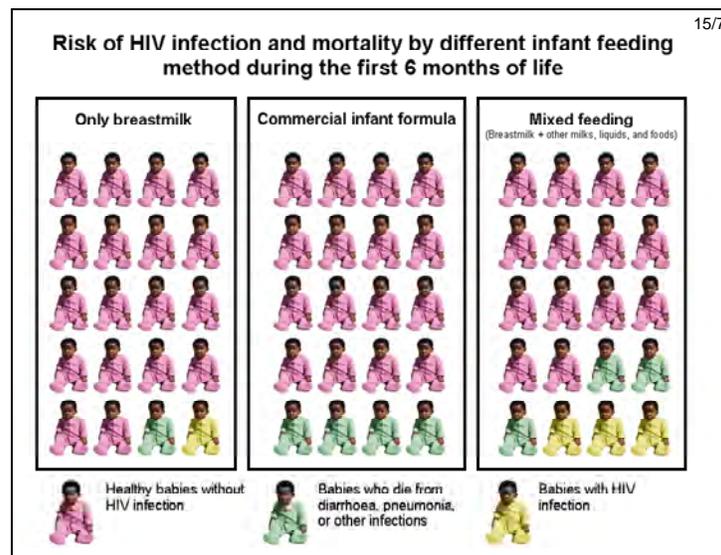
- Reducing HIV transmission to pregnant women, mothers, and their children, including transmission by breastfeeding, should be part of a comprehensive approach both to HIV prevention, care, and support; and to antenatal, perinatal, and postnatal care and support.
- The National IYCF Policy addresses the best interests of the mother and infant as a pair, in view of the critical link between survival of the mother and that of the infant.
- Prevention of HIV transmission during breastfeeding should consider the need to promote breastfeeding in the general population.
- Women who are HIV negative should be encouraged and supported to exclusively breastfeed and remain negative.
- Women of unknown status should be encouraged to be tested. If they are not tested, they should be counselled to exclusively breastfeed.
- We will now look at the situation where a woman has been tested and knows she is HIV positive.

Emphasise the following points:

- An HIV-positive mother has two options for feeding her baby during the first 6 months of life: exclusive breastfeeding or exclusive replacement feeding with commercial infant formula.
- Counsellors should help each mother decide the appropriate feeding option for her individual situation by taking into account the advantages and disadvantages of the two options.
 - There is risk of HIV transmission during breastfeeding, but exclusive breastfeeding increases a baby's chance of survival.

- There is less risk of HIV transmission if the infant does not breastfeed, but the risk of morbidity (especially from diarrhoea) and mortality is much higher among non-breastfed infants.
- If the mother mix-feeds—breastfeeds and gives other foods or liquids, including water—during the first 6 months, this increases the risk of MTCT of HIV.
- Exclusive breastfeeding for up to 6 months decreased the risk of HIV transmission by three to four times compared to non-exclusive breastfeeding in studies in Côte d'Ivoire, South Africa, and Zimbabwe.
- Counsellors should help each mother to evaluate her options and her situation thoroughly and to choose the appropriate feeding option for her situation by taking into account the risks and benefits of each available option.

Show **Slide 15/7**.



Explain the following:

- This slide shows the risks of HIV infection and death to children born to HIV-positive mothers during the first six months of life by different feeding methods. This slide does not consider PMTCT services. In our country, PMTCT services are available, so the number of babies infected would be even less.
- Even among women who know they are HIV positive, most of their infants will not be infected through breastfeeding. There are risks of HIV transmission if a mother who is HIV positive decides to breastfeed her infant. However, there are also risks if a mother decides not to breastfeed. In some situations, the risk of illness and death from not breastfeeding may be greater than the risk of HIV infection through breastfeeding.
- Infants who are not breastfed are at increased risk of gastroenteritis, respiratory infections, and other infections.
- We used the figures of 20% for transmission rates of HIV during pregnancy and delivery and 15% for the rate during breastfeeding for the purposes of the exercise. These sound like very exact figures, but they are only averages from several research studies.

- Rates vary because of differences in population characteristics such as how ill the mothers are, how much virus is in their blood, and how long mothers breastfeed.
- Since several factors affect these rates, understanding them may help us to find ways to reduce transmission.

Ask participants if they have any questions. Show **Slide 15/8. Recommendations for feeding an infant exposed to HIV**

15/8

Recommendations for feeding an infant exposed to HIV

The most appropriate infant-feeding option for an HIV-positive mother should continue to depend on her individual circumstances, health status, and local situation, including health services and counselling and support available.

Exclusive breastfeeding is recommended for HIV-positive women for the first 6 months of life unless replacement feeding with commercial infant formula is acceptable, feasible, affordable, sustainable, and safe (AFASS) for them and their infants.

When replacement feeding is AFASS, avoidance of all breastfeeding by HIV-positive women is recommended.

At 6 months, if replacement feeding is still not AFASS, continuation of breastfeeding with additional complementary foods is recommended, while the mother and baby continue to be regularly assessed. All breastfeeding should stop once a nutritionally adequate and safe diet without breastmilk can be provided.

Present the following information:

- The recommendations on the slide reflect the National IYCF Policy and the most recent recommendations from WHO—based on the HIV and Infant Feeding Update from October 2006.
- For an HIV-positive woman, there are now only two recommended options for how to feed her baby during the first 6 months: Exclusive breastfeeding and exclusive replacement feeding with commercial infant formula.
- The individual infant's risk of HIV infection and death can vary according to the mother/family's circumstances, the health of the mother, and the counselling and support she is able to receive.
- The best feeding choice for a baby and a young child is the one that maximises health, nutrition, growth, and development.
- All HIV-infected mothers should receive counselling, which includes provision of general information about the risks and benefits of various infant-feeding options, and specific guidance in selecting the option most likely to be suitable for their situation.
- Exclusive breastfeeding during the first 6 months is recommended unless replacement feeding (with infant formula) is acceptable, feasible, affordable, sustainable, and safe (AFASS).
- If replacement feeding is not AFASS at 6 months, continued breastfeeding with complementary foods is recommended.
- Between 6 and 24 months, if replacement feeding becomes AFASS, cessation of breastfeeding is recommended.
- Whatever a mother decides, health personnel should monitor all babies exposed to HIV and continue to offer infant-feeding counselling and support, particularly at key moments, and up to 24 months.

- A baby who tests positive in the first 6 months should be exclusively breastfed for the first 6 months. HIV-positive children should continue breastfeeding for as long as possible.
- Among infected infants, studies have shown that continued breastfeeding slows the progression of HIV and decreases the risk of mortality.

Ask participants if they have any questions.

Explain the following:

- Each of the options: exclusive breastfeeding and exclusive replacement feeding, has its own risks. A mother who breastfeeds risks transmitting HIV to her child. Meanwhile, a mother who replacement feeds risks having a child who dies from illness or malnutrition.
- The most dangerous way to feed an infant is mixed feeding (breastmilk plus other foods and liquids) during the first 6 months of life. Mixed feeding during the first 6 months can irritate the mucosal membrane of the intestines, creating entry points for HIV into the infant's body. It can also cause diarrhoea. It is very important for mothers who choose breastfeeding to follow exclusive breastfeeding for the first 6 months, and for those who choose replacement feeding to follow exclusive replacement feeding for the first 6 months.
- In this course, we will learn how to help a mother decide the best way to feed her baby from birth to 2 years—both to reduce the risk of HIV transmission and better guarantee the baby's survival.
- In the upcoming sessions, we will discuss how to counsel a mother on the two infant feeding options for babies exposed to HIV during the first 6 months of life: exclusive breastfeeding and exclusive replacement feeding. Later, we will also discuss feeding options for infants 6 to 24 months of age.

Summarise the session by making the following points:

- Not all infants born to HIV-infected women will be infected with HIV.
- The risk of HIV transmission during breastfeeding can range from 1–20% (depending on breastfeeding practices, duration of breastfeeding, and health of the mother). Exclusive breastfeeding for the first 6 months of life can significantly reduce the risk of HIV transmission through breastfeeding and reduce the risk of infant death from diarrhoea or other infant infections.
- Not breastfeeding has many disadvantages, including risks to the infant's health. Women need access to infant-feeding counselling to help them to decide the best way to feed their child in their situation.
- Mixed feeding should be avoided because it brings both the risks of HIV infection and the risk of diarrhoea and other infectious diseases.
- Breastfeeding should continue to be protected, promoted, and supported in all populations.

Trainer's notes

New evidence on HIV transmission through breastfeeding:

- Exclusive breastfeeding for up to 6 months was associated with a three- to four-fold decreased risk of transmission of HIV compared to non-exclusive breastfeeding in three large cohort studies conducted in Côte d'Ivoire, South Africa and Zimbabwe.
- Low maternal CD4+ count, high viral load in breastmilk and plasma, maternal seroconversion during breastfeeding, and breastfeeding duration were confirmed as important risk factors for postnatal HIV transmission and child mortality.
- There are indications that maternal HAART for treatment-eligible women may reduce postnatal HIV transmission, based on programmatic data from Botswana, Mozambique; and Uganda; follow-up trial data on the safety and efficacy of this approach and on infant prophylaxis trials are awaited.
- Recent studies in South Africa and Zimbabwe have shown that exclusive breastfeeding for the first 6 months can reduce the risk of transmission to a range of 1% to 5%. References: 1) Coovadia HM, Rollins NC, Bland RM, Little K, Coutsooudis A, Bennis ML, Newell ML. Mother-to-child transmission of HIV-1 infection during exclusive breastfeeding in the first 6 months of life: An intervention cohort study. *Lancet*. 2007; 369: 1107–16. 2) Humphrey J, Hargrove JW, Malabad LC, Iliff PJ, Moulton LH, Mutasab K, Zvandasarac P, Nathoo KJ, Mzengeza F, Chidawanyika H, Zijenah LS, Warde BJ, the ZVITAMBO Study Group. "HIV incidence among post-partum women in Zimbabwe: risk factors and the effect of vitamin A supplementation." *AIDS*. 2006, 20:1437–1446. New guidelines are expected related to infant feeding and ARVs.

New evidence on morbidity and mortality:

- In settings where antiretroviral prophylaxis and free infant formula were provided, the combined risk of infection and death by 18 months of age was similar in infants who were replacement-fed from birth and infants breastfed for 3 to 6 months (Botswana and Côte d'Ivoire).
- Early cessation of breastfeeding (before 6 months) was associated with an increased risk of infant morbidity (especially diarrhoea) and mortality in HIV-exposed children in completed studies (Malawi) and ongoing studies (Kenya, Uganda and Zambia).
- Early breastfeeding cessation at 4 months was associated with reduced HIV transmission but also with increased child mortality from 4 to 24 months in preliminary data presented from a randomised trial in Zambia.
- Breastfeeding of HIV-infected infants beyond 6 months was associated with improved survival compared to stopping breastfeeding in preliminary data presented from Botswana and Zambia.

Session 16: Counselling for infant-feeding decisions— Part 1

Learning objectives

After completing this session participants will be able to:

- Describe the elements to be considered for counselling on infant feeding in relation to HIV.
- List the different feeding options available to HIV-positive mothers.
- Demonstrate effective listening and learning skills in the context of infant-feeding counselling for women who are HIV positive.

Preparation

- Make sure that **Slides 16/1 through 16/5** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Five flip-chart sheets with each AFASS criteria written on top as a heading.
- Each participant should have the counselling cards as a reference. Pass them out at the beginning of the session.
- Markers.

Suggested time: 80 minutes

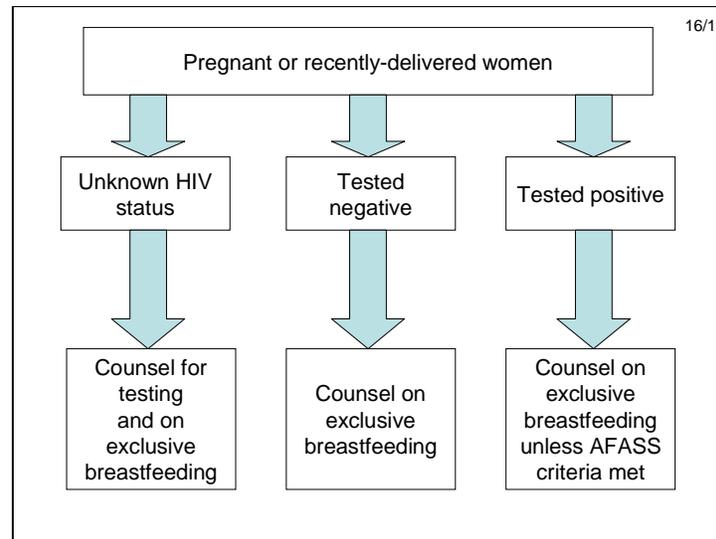
Session guide

Counselling for infant feeding in relation to HIV

Explain the following:

- As infant-feeding counsellors, you will explain the different feeding options available to HIV-positive mothers.
- You will not be expected to give general counselling for HIV unless you have special training to do this. If you have not been trained, you need to know where to refer women for this service, and you should refer mothers to counselling rather than try to counsel them without training.
- Although ideally most women in the country will have been tested for HIV during pregnancy, it is possible that you may be giving infant-feeding counselling to women who may or may not know their HIV status.

Show **Slide 16/1** and explain that women need different information about feeding their children during the first 6 months depending on their HIV status, their individual situation, and the age (and HIV status) of their baby.



Share the following information:

<p>For women who have not been tested or do not know their status:</p>	<ul style="list-style-type: none"> ○ Talk with them about the advantages of HIV testing for them and their families. ○ Refer them to a convenient HIV testing and counselling centre if they would like a test or for Know Your Status (KYS) testing in their community. Pregnant women can be tested in their own homes by KYS counsellors. If they test positive, they are referred to health facilities for services. For women who do not want to be tested at home, KYS counsellors can give information and refer them to the facility for testing and further management. ○ Recommend the systematic use of condoms and explain how to use them. ○ Explain why it is important that her partner be involved and be tested. ○ In the absence of a test result, provide counselling about their concerns and encourage them to feed their babies as if they were HIV negative—to breastfeed exclusively for 6 months and to continue breastfeeding with adequate complementary feeding up to 2 years or beyond. ○ If a woman does not know her HIV status, it is usually safer for her baby if she breastfeeds exclusively. Babies who do not breastfeed are at greater risk of illness. ○ When you counsel a woman who does not know her HIV status about infant feeding, she may need reassurance that breastfeeding is the safest option for her baby. ○ Talk with each woman about the risks of becoming infected during pregnancy or while breastfeeding and review ways to stay negative. It is important that she remain negative (through condom use, abstaining from sex, or mutually faithful relationship with a
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	negative partner).
For women who have been tested and are HIV negative:	<ul style="list-style-type: none"> ○ Talk with them of the risks of becoming infected during pregnancy or while breastfeeding and review ways to stay negative. It is important that she remain negative (through condom use, abstaining from sex, or mutually faithful relationship with a negative partner). ○ Explain why it is important that her partner be involved and be tested. ○ If it is appropriate, suggest taking a regular test if it is possible she has been exposed since her last one. ○ A woman may believe that she is HIV positive despite a negative test. She needs counselling to discuss her worries and generally should be encouraged to exclusively breastfeed. ○ Suggest that they have a repeat test if they think they have been exposed to HIV since the last test. ○ Encourage exclusive breastfeeding for the first 6 months (as per the general population recommendation) since this is the best for babies' health and development. ○ From the age of 6 months, introduce a variety of complementary foods that are safely prepared and continue breastfeeding until the age of 2 years and beyond. ○ Avoid mixed feeding during the first 6 months. Mixed feeding increases the risk of diarrhoea, infections, and malnutrition of all infants.
For women who have been tested and are HIV positive:	<ul style="list-style-type: none"> ○ Recommend the consistent use of condoms to avoid re-infection and explain how to use them. ○ Explain why it is important that her partner is involved and be tested. ○ Make sure that the mother meet with the personnel and receive the services appropriate for her care. ○ Discuss her infant-feeding options from birth to 6 months. Exclusive breastfeeding is recommended for HIV-positive mothers for the first 6 months of life unless replacement feeding is AFASS for them and their infants before that time. ○ The choice of the best feeding option for an infant born to an HIV-positive mother depends on the mother's situation. This choice ought to take into account the availability of health services and the counselling and support she is likely to obtain. ○ You will need to counsel her again as the child approaches 6 months of age, to discuss feeding options from 6 months onwards. ○ At 6 months, introduce complementary foods and if breastfeeding, continue until replacement feeding becomes AFASS. ○ After 6 months, if and when replacement feeding is AFASS, the HIV-positive mother ought to avoid any breastfeeding of her infant. ○ All HIV-positive mothers should receive advice that includes general information on the risks and advantages of different feeding options for the baby, as well as assistance in choosing the most appropriate option in their case. ○ Whatever her choice, the mother ought to be supported.

Ask participants if they have any questions.

Explain the following about infants who test positive:

- If the infant has tested positive, the mother should be encouraged to continue breastfeeding. In this way the infant can benefit from the good effects of breastmilk.

Ask participants to turn to page 1 of the counselling cards. Show **Slide 16/2**, showing page 1 of the counselling cards.

16/2

<p>HOW TO USE THE FLOW CHART</p> <p>1. IF THIS IS THE FIRST INFANT FEEDING COUNSELLING SESSION:</p> <p>And she is pregnant:</p> <ul style="list-style-type: none">• Follow steps 1-4. If she needs time to decide which feeding option to choose, follow steps 1-3 and ask her to return to discuss step 4• If she is early in her pregnancy ask her to return again closer to her delivery date to review how to feed her baby. <p>If she already has a child:</p> <ul style="list-style-type: none">• Follow steps 1-3. If the mother is not breastfeeding at all, however, do not discuss the advantages and disadvantages of breastfeeding.• Continue with steps 5. <p>2. IF THE MOTHER HAS ALREADY BEEN COUNSELLED AND CHOSEN A FEEDING METHOD, BUT SHE HAS NOT YET LEARNED HOW TO PRACTICE IT:</p> <p>And she is pregnant</p> <ul style="list-style-type: none">• Do step 4 only. <p>And she already has a child:</p> <ul style="list-style-type: none">• Begin with step 4 and continue with step 5 <p>3. IF THIS IS A FOLLOW-UP VISIT:</p> <ul style="list-style-type: none">• Begin with step 5• Review how to practice the feeding method. <p>REMEMBER:</p> <ul style="list-style-type: none">• Use "listening and learning skills" and skills for building confidence and giving support.• Check to ensure that the mother understands what you have discussed• Arrange for follow up or referral as needed.	<p>COUNSELLING FLOW CHART</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;"><p>STEP 1</p><p>Explain the risks of mother-to-child transmission</p></div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;"><p>STEP 2</p><p>Explain the advantages and disadvantages of different feeding options starting with the mother's initial preference</p></div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; text-align: center;"><p>STEP 3</p><p>Explore with the mother her home and family situation and help the mother choose an appropriate feeding option</p></div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"><p style="text-align: center;">STEP 4</p><p style="text-align: center;">Explain how to practice the chosen feeding option and give her the appropriate take-home pamphlet</p><table border="0" style="width: 100%;"><tr><td style="width: 50%; vertical-align: top;">How to practice exclusive breastfeeding for the first 6 months</td><td style="width: 50%; vertical-align: top;">How to give only formula Remind the mother that she can never breastfeed if chooses formula</td></tr></table></div> <div style="border: 1px solid black; padding: 5px;"><p style="text-align: center;">STEP 5</p><p>Follow-up with the mother and baby</p><ul style="list-style-type: none">• Monitor growth• Check feeding practices• Check for signs of illness• Discuss feeding for infants 6 to 24 months</div>	How to practice exclusive breastfeeding for the first 6 months	How to give only formula Remind the mother that she can never breastfeed if chooses formula
How to practice exclusive breastfeeding for the first 6 months	How to give only formula Remind the mother that she can never breastfeed if chooses formula		

Explain that:

- Most HIV-positive women are not ready to discuss infant-feeding options at their first post-test counselling session. They will need to be referred specifically for that later. The infant-feeding counsellor may be a different person from the person who gives general post-test counselling.
- In order to help the woman without telling her what to do, you will need to follow a step-by-step process for providing information and support.
- We will look at the basic steps that should be followed. In further sessions you will learn the relevant information required and how to apply your counselling skills during the process.
- The flow chart included in the flip chart helps you to work through options with a woman in a logical way. It is important that a woman is not overwhelmed with many choices and is given time to express her own feelings.

Ask: At what point could or does infant feeding counselling for HIV-positive women take place? When are times when women may want to talk about infant feeding?

Be sure that participants mention:

- Before a woman is pregnant.

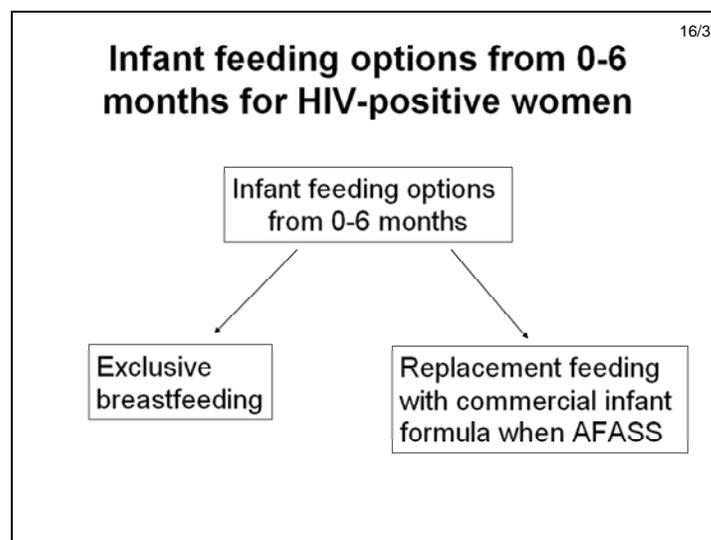
Infant and Young Child Feeding Curriculum

- During her pregnancy.
- Soon after her baby is born.
- Soon after receiving the first and final results of her baby's HIV test.
- Before her baby completes 6 months and she introduces complementary foods.

Explain the following:

- Infant-feeding counselling is needed at every contact with a facility until a baby is 24 months old.
- As her baby gets older, an HIV-positive mother needs ongoing infant-feeding counselling to support her chosen method during the first 6 months and to re-evaluate her situation at 6 months before introducing complementary foods. If her situation has changed, she may want to change her method of feeding and to discuss this with the infant-feeding counsellor. Each woman's situation is different, so health workers need to be able to discuss all the various feeding options.
- It is important for breastfeeding mothers to continue breastfeeding exclusively until their children complete 6 months. If a woman comes in with a 5-month-old, she may be counselled on introducing complementary foods, but it is important to emphasise that just because they discuss introducing new foods, it does not mean she should start before her child completes 6 months.
- Infant-feeding options should be discussed with women who are HIV positive. The Government of Lesotho now recommends two infant-feeding options for HIV-positive women during the first 6 months: exclusive breastfeeding and exclusive replacement feeding with commercial infant formula. Remind participants of Session 2 and that cow's milk is not appropriate for infants less than 6 months of age.

Project **Slide 16/3** and review an HIV-positive woman's options for feeding her baby in the first 6 months. Explain that when counselling a woman, the advantages and disadvantages of both options should be discussed.



Explain that the WHO has criteria to recommend when an HIV-positive mother should replacement feed. These criteria are called AFASS for acceptable, feasible, affordable, sustainable and safe.

A counsellor needs to know about the family and economic circumstances to appropriately counsel women on how to feed their children.

Determining AFASS

Show **Slides 16/4 and 16/5: Definitions of Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS)**. Discuss with the participants the definition of each term.

Slide 16/4.

16/4

**DEFINITIONS OF ACCEPTABLE, FEASIBLE,
AFFORDABLE, SUSTAINABLE AND SAFE
(AFASS)**

- **Acceptable:** The mother perceives no barrier to replacement feeding. Barriers may have cultural or social reasons, or be due to fear of stigma or discrimination.
- **Feasible:** The mother (or family) has adequate time, knowledge, skills and other resources to prepare the replacement food and feed the infant up to 12 times in 24 hours.
- **Affordable:** The mother and family, with community or health-system support if necessary, can pay for the cost of purchasing/producing, preparing and using replacement feeding, including all ingredients, fuel, clean water, soap and equipment, without compromising the health and nutrition of the family.

Slide 16/5.

16/5

**DEFINITIONS OF ACCEPTABLE, FEASIBLE,
AFFORDABLE, SUSTAINABLE AND SAFE
(AFASS)**

- **Sustainable:** Availability of a continuous and uninterrupted supply, and dependable system of distribution for all ingredients and products needed for safe replacement feeding, for as long as the infant needs it, up to one year of age or longer.
- **Safe:** Replacement foods are correctly and hygienically prepared and stored and fed in nutritionally adequate quantities with clean hands and using clean utensils, preferably by cup.

For each definition ask participants if they have any questions.

Divide participants into five groups. Assign one word to each group and pass out the corresponding flip-chart sheet to each group.

Read the following instructions to the groups:

- Discuss your assigned word and how it relates to the average woman in your community. What are related cultural practices, the economic situation, or other barriers that would influence whether or not the criteria are met?
- For example, for the criteria 'acceptable,' a common barrier for many women who choose to replacement feed is that most women in the community breastfeed their children. Since a woman who chooses replacement feeding can never breastfeed, this may call attention to her HIV status or pressure her to breastfeed. If she was not comfortable with this, replacement feeding would be considered unacceptable.
- You have 10 minutes to discuss your assigned criteria. Assign someone in your group to take notes and someone to present.

After 10 minutes, allow each group to present. Encourage other groups to ask questions or share examples.

Summarise this activity by emphasising the following points:

- When counselling HIV-positive women on infant feeding it is important to:
 - Talk about her individual circumstances to see if she meets AFASS criteria.
 - Explain to her the two infant-feeding options and the advantages and disadvantages of each.
 - Help her make the best decision on how to feed her infant.

Counselling job aids overview

Make these points while showing each of the tools:

- The first set of tools we will look at is a counselling card flip chart that includes the flow chart illustrating the counselling process (that we discussed earlier in this session). It also includes counselling cards to be used during one-to-one sessions with pregnant women and/or mothers.
- The second tool is a set of take-home flyers for mothers on how to safely practise the chosen feeding option.

Ask participants to look at the cards. Explain how to use the flow chart and cards 1 to 6 in turn. Hold the card up and ask the participants to find, and study, their own card as you explain it.

- The first page is a flow chart of the recommended steps to follow for HIV and infant feeding counselling. On the left-hand side there are some simple instructions for how to use the flow chart, depending on the type of session (first session, follow-up) and whether the woman is pregnant or her baby is already born. Each of the cards we will now look at has a step number which fits in with the steps on the flow chart.
- Card 1 is called 'The risk of mother-to-child transmission.' Use this card to help you to explain to a woman the chances of her child being infected. Remember from Session 16, if all the mothers of the babies shown are HIV positive, three of the babies are likely to get HIV through breastfeeding.
- Card 2 lists the infant-feeding options for the first 6 months for women who are HIV positive.
- Card 3 is called 'Benefits of exclusive breastfeeding.' Exclusive breastfeeding until a baby completes 6 months is recommended unless replacement feeding is AFASS.
- Card 4 is called 'Advantages and disadvantages of commercial infant formula.'

- Card 5 is called 'Helping a mother decide how best to feed her baby.'
- Card 6 is called 'Understanding exclusive breastfeeding.'
- It is important to remember that during the first 6 months a woman should be encouraged and supported to use the same infant-feeding method she chose for the entire time.
- Note that each card has several sections:
 - 'Use with': This specifies the group of people with whom you should use this specific card. For example, Card 1 is to be used with 'All HIV-positive women who are being counselled for the first time.'
 - 'Ask': This section gives a very specific question or questions that a counsellor can ask to start the conversation.
 - 'Key Messages': This main section of the card provides the key messages that a counsellor should review with a mother.
 - 'Ask': This second "ask" section provides questions for the counsellors to use in order to check for understanding.

Explain the following:

- The table shown in Card 5 should be used with mothers who are pregnant or have infants under 6 months old. It helps the counsellor to explore the woman's living conditions in order to help her choose the most suitable feeding method for her situation.
- The first step is to ask the woman about all of the things in the first column. For example: *Where do you get your drinking water?*
- Remember the woman's responses to each question. You will use this information to help her choose a feeding option. This table is not designed as a scoring tool or to make the mother's choice for her. The mother should choose the method herself after learning the advantages and disadvantages of each method.
- When you use the cards it is important to use your counselling skills and not to tell a woman what to do. Do not simply read out the points on the card. It is important to use open questions, to listen and learn from the woman, and to support her in the choice she makes.
- It may take a woman more than one counselling session to make up her mind about the feeding option she will choose. It is important for you to give the woman as much time as she needs and not to force her to make a decision when she is not ready.

Ask participants if they have any questions, and try to answer them. Summarise the session by making these points:

- All women who are HIV positive need infant-feeding counselling to discuss infant-feeding options, and to decide what is best for them in their situation.
- Women who are HIV negative need counselling about their concerns and encouragement to breastfeed exclusively for 6 months.
- Women who do not know their status should be referred for testing, so they can be counselled appropriately. If they are not tested, they should be encouraged to exclusively breastfeed.

Trainer's notes

Clinical AIDS:

There are some illnesses that are very closely associated with HIV, such as Kaposi's sarcoma and pneumocystis pneumonia. Other illnesses, such as herpes zoster and tuberculosis, are commonly associated with HIV but also occur in people who are not infected. It is therefore difficult to make a definite diagnosis of HIV without HIV testing. If a

woman has AIDS-related illness, and after counselling to encourage her to be tested, she is still unwilling, she could be referred to a doctor for assessment of the likelihood that she has HIV infection, before making a decision about infant feeding.

Unknown infant status:

Why do you counsel the HIV-positive mother about breastfeeding without knowing about the baby's status? Only a small percentage of infants are *infected* with HIV at birth. It is not possible from ordinary tests to know which infants are infected at an early age. If an infant is *uninfected*, then it may be possible to help a mother reduce the risk of both HIV and other illnesses by appropriate infant-feeding counselling. So the best thing is to offer this help to all HIV-positive mothers and their infants. If the baby is already known to be infected with HIV it is recommended that he or she breastfeeds because the risk of not breastfeeding remains while the risk of infection is no longer relevant.

Testing infants for HIV:

There are two types of tests for HIV infection: antibody tests, including rapid tests, and virological assays, such as RNA or DNA PCR (polymerase chain reaction). The antibody tests detect antibodies, not the virus itself; antibodies from the mother pass to the child and may not disappear until the child is 18 months of age, hence usually cannot help detect HIV-status of the child before that age. Virological assays detect the presence of the HIV virus in the blood and are reliable at any age. DNA PCR testing is available for infants at six weeks using dried blood spot testing. PCR testing is available at 166 PMTCT facilities throughout the country. It usually takes about two to six weeks to receive the results.

Session 17: Feeding options for HIV-positive mothers– Advantages of exclusive breastfeeding

Learning objectives

After completing this session participants will be able to:

- List the advantages and the disadvantages of exclusive breastfeeding for HIV-positive women.
- Describe the factors that increase the risk of MTCT of HIV during breastfeeding.
- Explain how to reduce the risk of MTCT of HIV during breastfeeding.
- Counsel a mother on the advantages and disadvantages of exclusive breastfeeding.
- Use Counselling Card 3 during a counselling session.

Preparation

- Each participant should have a copy of the counselling cards as a reference during this session.
- In order to demonstrate the use of Counselling Card 3, either project **Slide 17/1** or simply show the counselling cards to the participants.
- Flip-chart sheets from Session 2 with advantages of breastfeeding should be posted around the room.
- Copies of the Counselling Observation Checklist.

Suggested time: 40 minutes

Session guide

Explain the following:

- According to the National IYCF Policy, there are two recommendations for how HIV-positive mothers should feed their babies during the first 6 months of life: exclusive breastfeeding and exclusive replacement feeding with infant formula.
- In this session, we will discuss exclusive breastfeeding and the ways to reduce the risk of MTCT of HIV during breastfeeding.
- All health workers who care for mothers and infants need to know how breastfeeding works, and how to help mothers to breastfeed. They need this competence to help both HIV-negative and HIV-positive mothers.
- Health workers are responsible for protecting, promoting, and supporting the feeding choice made by the mother.
- In addition to helping mothers to breastfeed their infants properly, the health worker should refer the mother to other health services that support the growth and development of her baby during the first 2 years.

Advantages and disadvantages of breastfeeding for an HIV-infected mother

Explain that an HIV-positive mother needs to understand the advantages and disadvantages of exclusive breastfeeding before deciding if it is the best option for her specific situation. Ask participants to refer to the advantages and disadvantages of exclusive breastfeeding posted throughout the room.

Ask: What are the benefits of exclusive breastfeeding for women who are HIV positive?
Write their responses on a flip chart. Be sure they mention the following:

- Breastmilk is the ideal food for babies and protects them from many diseases, especially diarrhoea, malnutrition, and pneumonia, and the risk of dying from these diseases.
- Breastmilk gives babies all the nutrients and water they need in adequate amounts. Breastfed babies do not need any other liquid or food.
- Breastmilk is free, always available, and does not need any special preparation.
- Exclusive breastfeeding for the first 6 months lowers the risk of passing HIV, compared to mixed feeding.
- Many women breastfeed, so people will not ask why mothers are breastfeeding.
- Exclusive breastfeeding helps mothers to recover from childbirth and protects them from getting pregnant again too soon.

Ask: What are the disadvantages of breastfeeding for women who are HIV positive?

Write participants' responses on a flip chart. They should mention the following:

- As long as the mother breastfeeds, her baby is exposed to HIV.
- People may pressure the mother to give water, other liquids, or foods to the baby while she is breastfeeding. This practice, known as mixed feeding, increases the risk of diarrhoea and other infections, and increases the risk of HIV transmission.
- It may be difficult (and potentially dangerous) to do if the mother gets very sick.

Ask participants to refer to Counselling Card 3, which presents information on the advantages and disadvantages of breastfeeding.

Remind participants that:

- If a woman does breastfeed, it is important for her to breastfeed exclusively. This gives protection for the infant against common childhood infections and also reduces the risk of HIV transmission.
- Counselling on infant feeding may need to take into account her disease progression. Recent evidence suggests a very high rate of postnatal transmission in women with advanced disease.
- An HIV-positive mother who chooses to breastfeed needs to use a good technique to prevent nipple fissure and mastitis, both of which may increase the risk of HIV transmission. We have already learned how to manage these breast conditions.

Demonstration: Use of Counselling Card 3

Explain that:

- Counselling cards can be used by health workers to explain advantages and disadvantages of exclusive breastfeeding by HIV-positive mothers.
- We will demonstrate how to use the card and then participants will have the opportunity to practice using the card during a role play.
- Ask a participant to volunteer for the role of mother during the demonstration.

Show **Slide 17/1. Counselling Card 3: Advantages of exclusive breastfeeding**



In this demonstration, you will demonstrate how to use the counselling cards. You will play the role of the counsellor, and a participant will play the role of a mother who is HIV positive and who is receiving counselling for the first time. She has decided to breastfeed. The counsellor should use the counselling card in order to drive the conversation.

Counsellor:	Good morning, Me (name). How are you doing today? What can I do to help you?
Mother:	Oh I am doing well, thank you. I am here today because I just tested positive for HIV, and I am pregnant. I want to get some information about how to feed my baby.
Counsellor:	That is good that you have come to talk about how to feed your baby. <i>(Pulls out counselling cards and shows the mother Counselling Card 3. The photo faces the mother and the text faces the counsellor.)</i> What do you think of breastfeeding?
Mother:	I think it's good.
Counsellor:	What do you understand by exclusive breastfeeding?
Mother:	Well, I know that it means giving my baby only breastmilk for the first 6 months.
Counsellor:	That's right. This means that you cannot give your baby other foods, liquids, or even water.
Mother:	Oh really? Even when it is very hot outside?
Counsellor:	Even then, you should only give breastmilk. Breastmilk has all of the water that your baby needs. Let's talk more about exclusively breastfeeding. What are the advantages?
Mother:	I was told that if I breastfeed exclusively, then it is safer for my baby, since I have HIV. And also, breastmilk is free and always available when I need it.
Counsellor:	That's very true. Also, breastmilk is the ideal food for babies. It has everything that your baby needs to grow healthy and strong. Exclusive breastfeeding for the first 6 months also protects you from getting pregnant again too soon after this baby. What do you think of these advantages? Are they important for you?

Mother:	Yes. I am very worried about giving HIV to my baby, but I know that I cannot afford to buy formula for my baby. Breastfeeding seems like the best option.
Counsellor:	What are the possible disadvantages of exclusive breastfeeding?
Mother:	I know that there is still a chance that my baby might get HIV.
Counsellor:	Do you have questions about the disadvantages? Do you think that these disadvantages apply to your situation?
Mother:	I am worried about making sure that other people do not feed my baby other foods. I would like to talk more about how to express my breastmilk so I can leave milk with my mother for the baby when I go back to work.
Counsellor;	Talking with your mother is a good idea. Remember to come back if you have any questions or problems feeding your baby after he or she is born. Also, be sure to come back when your baby is 6 months old so we can talk about how best to feed your baby when he or she starts to need other foods.

Divide participants into groups of three; ask one to be the health worker, one to be the mother, and one to observe. Pass out copies of the counselling observation checklist for the observer to use. Ask each group to do a role play similar to the one demonstrated using the counselling cards. Allow 10 minutes.

After 10 minutes, ask the group to come back to plenary. Facilitate a debriefing about their role plays:

- Was there a particular step that was challenging? If yes, why?
- What techniques for listening and learning were demonstrated during the exercise?
- What could 'health workers' do differently to improve this counselling session?

Ask if participants have questions, and respond to them.

Trainer's notes

When talking about breastfeeding, it is important to remember the approaches for reducing the risk of MTCT of HIV during breastfeeding.

Preventing HIV infection in women:

- Women who become infected with HIV while they are pregnant or breastfeeding have much higher risk of transmitting the virus to their baby.
- It is especially important to prevent infection in a seronegative woman because the woman and her baby are both at risk.
- Seropositive women can be re-infected if they have sexual relations with a seropositive partner, so they should always abstain or use a condom during the breastfeeding period.
- All men need to know that having sexual relations without a condom exposes them to HIV infection. If they become infected, they can then infect their wives, and their babies, who will be at great risk if the infection takes place during pregnancy or breastfeeding.

Give ARVs to eligible women:

- Giving ARVs to eligible women will improve their CD4 count, lower their viral load, and therefore may reduce the risk of transmission from mother to child.
- Recent studies show a very high postnatal transmission rate among women in an advanced stage of AIDS.

Improve maternal health:

- Studies show that systemic infections and infections localised in the breast increase the viral load of the mother and consequently increase the risk of transmission from mother to child.
- Encourage women to treat opportunistic infections as soon as possible. Provide counselling on improving breastfeeding techniques and treating breast health problems.

Improve infant health and survival:

- Infants with candidosis (thrush) are at greater risk of infection, so mothers should regularly inspect their infant's mouth and take them for treatment when needed.
- Poorly nourished or sick infants are more susceptible to infections, so mothers should be encouraged to take their infants regularly to the health centre to assess their growth and receive medications if the infants are sick.
- Daily cotrimoxazole prophylaxis, starting at 6 weeks, can help reduce infections.

Implement appropriate infant-feeding practices:

- Assist each mother to choose the feeding option from birth that is the safest one for her personal situation.
- Provide support to the mother so that she can successfully breastfeed exclusively during 6 months.
- See the mother and infant regularly to verify that the infant is in good nutritional health.
- Monitor the mother and infant regularly between 6 and 24 months so as to assist the mother with continued breastfeeding or breastfeeding cessation if it becomes appropriate (AFASS with a safe and nutritionally adequate diet) and to ensure good feeding practices.

Promote **exclusive** breastfeeding among all breastfeeding mothers:

- By encouraging exclusive breastfeeding for the first 6 months among all nursing mothers, it becomes easier for seropositive women to get the support of family and community to practice exclusive breastfeeding.

Session 18: Feeding options for HIV-positive mothers

Advantages and disadvantages of exclusive replacement feeding with commercial infant formula

Learning objectives

After completing this session participants will be able to:

- Explain to a mother the advantages and disadvantages of replacement feeding.
- List breastmilk substitutes that can be used for replacement feeding.
- Describe the approaches to minimise risk of infection and malnutrition of babies using replacement feeding.
- Use Counselling Card 4 during a counselling session.

Materials and preparation

- Flip-chart paper.
- Magic markers.
- Tape or other items for affixing papers on walls or chalkboards.
- Each participant should have a copy of the counselling cards to refer to during this session. The leader will demonstrate the use of Counselling Card 4: Advantages and disadvantages of commercial infant formula.
- In order to demonstrate the use of Counselling Card 4, you can project **Slide 18/1** or simply show the counselling cards to the participants.

Suggested time: 60 minutes

Session guide

Advantages and disadvantages of replacement feeding

Introduce the session by explaining that HIV-positive women who have been counselled about infant-feeding options may decide to replacement feed if they meet the AFASS criteria.

Ask: What is exclusive replacement feeding?

Wait for several responses, and then share the following definition.

Replacement feeding is the process of feeding an infant who is not breastfed with a food that provides all nutritional elements needed by the infant until the infant can begin a variety of foods at 6 months. Commercial infant formula is now the only recommended replacement feeding option for the first 6 months.

Share the following information:

- Replacement feeding must be acceptable, feasible, affordable, sustainable and safe (AFASS).
- Adequate replacement feeding is needed until the infant is at least 2 years old, which is the time the infant is at the greatest risk of malnutrition.
- If a mother chooses to replacement feed, commercial infant formula is needed **exclusively** for at least the first 6 months. After the first 6 months, it is also useful if some kind of milk is part of the diet for up to 2 years of age or more.

- Formula has a good proportion of nutritional elements and added micronutrients. Giving infant formula to the non-breastfed baby until the age of 24 months is encouraged.
- Exclusive replacement feeding from birth protects the baby from the risk of mother to child transmission of HIV. However, there are important risks that must be considered when the mother chooses to give her infant formula.
- Replacement feeding should be given to the infant in a healthy and hygienic manner to avoid infections and malnutrition.
- Since the risk of MTCT is the highest when feeding other milk or solid foods, it is equally or even more important for mothers who use replacement milk during the first 6 months to be counselled about the dangers of mixed feeding, as should mothers who exclusively breastfeed.

On a flip chart, make two columns. One should have the heading 'Advantages' and the other the heading 'Disadvantages' (like the table below).

Ask: What are the advantages of replacement feeding? What are the disadvantages?

Encourage participants to discuss and write their comments under the appropriate heading. The following should be mentioned:

REPLACEMENT FEEDING	
<u>Advantages</u>	<u>Disadvantages</u>
<ul style="list-style-type: none"> • Giving only replacement milk carries no risk of HIV transmission to the baby. • Other responsible family members can assist in feeding the baby. If the mother falls ill, other persons can nourish the baby while she recovers. 	<ul style="list-style-type: none"> • Replacement feeding does not have the antibodies that protect the baby from infections. • A baby replacement fed is at an increased risk of falling seriously ill from diarrhoea, pulmonary infections, and malnutrition. • A mother should never breastfeed once she begins replacement feeding; otherwise, the risk of transmitting HIV will continue. • A mother needs fuel and clean water (for boiling vigorously for 5 minutes) to prepare replacement milk, as well as soap to wash the baby's cup. • Infant formula requires preparation time and must be freshly prepared for each feeding (unless the mother has a refrigerator). • Infant formula is costly and you have to have it always available. A baby needs forty (40) tins of 500g each for the first 6 months. • The family needs to have enough infant formula for at least for the first 2 years of the infant's life. • Babies will need a cup for drinking. Babies can learn to hold the cup themselves when they are bigger, but that can take time. • People may wonder why a mother is giving formula instead of breastfeeding, and may suspect that the mother is HIV infected. • A mother can become pregnant sooner.

Demonstration of Counselling Card 4

Ask participants to turn to Counselling Card 4. Explain that this counselling card can be used by health workers to explain the advantages and disadvantages of replacement feeding to HIV-positive mothers.

Explain that there will first be a demonstration of the card's use followed by time for them to practice using it during a role play.

Show **Counselling Card 4: Commercial infant formula**



In this demonstration, you will demonstrate how to use the counselling cards. You will play the role of the counsellor, and a participant will play the role of a mother who is HIV positive and who is receiving counselling for the first time. She has decided to feed her baby using commercial infant formula. The counsellor should use the counselling card in order to drive the conversation.

Counsellor:	Good morning, Me (name). How are you doing today?
Mother:	I am doing well, but I am really worried about my baby. I just found out that I am HIV positive, and I need to find out about how to feed my baby. I would like to feed formula.
Counsellor:	That is good that you have come to talk about how to feed your baby. <i>(Pulls out counselling cards and shows the mother Counselling Card 4. The photo faces the mother and the text faces the counsellor.)</i> What do you think of infant formula?
Mother:	I think formula can be used to feed my baby.
Counsellor:	What does 'exclusive formula feeding' mean to you?
Mother:	Well, I know that I can only give my baby only infant formula for the first 6 months.
Counsellor:	That's right. This means that you cannot give your baby other foods, liquids, or even water or breastmilk. Exclusive replacement feeding means giving commercial infant formula that is made especially for babies, from birth until the age of 6 months. This also means that you cannot ever give breastmilk to your baby.
Counsellor:	What are the advantages of exclusive replacement feeding?
Mother:	I know that if I do this, then my baby will not be at risk at all for HIV. This is

	very important to me.
Counsellor:	That's true. It is important that you only use infant formula, as it is specially formulated for infants. Also, other family members can help you feed your baby. What are the possible disadvantages of exclusive replacement feeding?
Mother:	It can be difficult to make, and I know that I need to make a fresh feed each time the baby needs to eat. I also know that it is expensive, but my husband has a steady job.
Counsellor:	Those are both true, and it's good that you are prepared for them. Also, remember that infant formula lacks the antibodies that are present in breastmilk, so your baby will be at a higher risk of diarrhoea, pneumonia, and even malnutrition. In addition, when preparing those feeds, it is very important that they be prepared hygienically, using boiled water, clean cups and utensils.
Mother:	Okay, I will make sure that I do that.
Counsellor:	Also, in some settings, feeding using infant formula may not be socially acceptable. May I ask if you have told your family?
Mother:	Yes, I have. My husband and mother know about my status.
Counsellor:	That's good. That will be very helpful for you. Do you have any questions about any of the disadvantages? Do you think that certain disadvantages could apply to your situation?
Mother:	Maybe, I'm not very sure. I think that I can do this, but I'd like to talk more about how to make sure that I'm preparing the formula properly. I don't want my child to get sick.
Counsellor:	I'd be happy to show you how to prepare infant formula properly. It is important to remember that if your baby falls ill, you should bring him to a health facility immediately. And remember, be sure to come back when your baby is 6 months old so we can talk about how to start giving other foods in addition to formula.

Ask participants if they have any questions.

Practice using Counselling Card 4

Divide participants into groups of three to role play using Counselling Card 4; ask one to be the health worker, one to be the mother, and one to observe. Pass out copies of the counselling observation checklist for the observer to use. Participants should have different roles than during the breastfeeding session. Ask each group to do a role play similar to the one demonstrated using the counselling cards based on the scenario below.

A pregnant woman named Lerato has tested positive for HIV, and is starting to be counselled on how to feed her baby. Practice using this card, which focuses only on the advantages and disadvantages of replacement feeding. Lerato is worried about passing HIV to her baby and wants to feed her baby with formula. She has no regular employment, but her husband is a taxi driver, and she has an aunt who gives her money from time to time.

Circulate among the participants and give them the assistance they need. (All facilitators.)

After 10 minutes, ask the group to come back to plenary. Facilitate a debriefing about their role plays:

- *Was there a particular step that was challenging? If yes, why?*
- *What techniques for listening and learning were demonstrated during the exercise?*
- *What could 'health workers' do differently to improve this counselling session?*

Session 19: Counselling for infant-feeding decisions– Part 2

Learning objectives

After completing this session participants will be able to:

- Conduct an AFASS evaluation with HIV-positive women using the counselling cards.
- Describe all the conditions to fulfil before counselling the HIV-infected mother to avoid breastfeeding her infant when the conditions are AFASS.
- Counsel HIV-positive women on infant feeding options, using the cards, flow chart, and take-home flyers.
- Use Counselling Card 5 during a counselling session.

Materials and preparation

- For each group, one copy of Counselling Stories 1 through 4, which are located at the end of this session guide.
- For each participant, one copy of the Counselling Cards and one set of take-home flyers. NOTE: These tools should be distributed at the beginning of the course and participants should be asked to read them before this session.
- In order to demonstrate the use of Counselling Card 5, you can project **Slide 19/1** or simply show the counselling cards to the participants.
- Have copies of the Counselling Skills Checklist, one for each participant.
- Post the flip-chart sheets from Session 16 with the participants' examples of AFASS on the walls. They will refer to these in this session.
- Ask two trainers to do the counselling demonstration. This requires a lot of practice as they will demonstrate the use of the counselling cards to the participants. They should have practised this several times before this session.

Suggested time: 120 minutes

Session guide

Understanding AFASS

Facilitate a short discussion about infant feeding by asking the following questions:

- *What advice would you give to a woman who is HIV negative about how to feed her baby for the first 6 months?*
- *What feeding options are recommended for a woman who is HIV positive about how to feed her baby for the first 6 months?*
- *How can an HIV-positive woman know which infant-feeding option (exclusive formula or exclusive breastfeeding) is the best choice for her situation?*

Explain that in this session, we will discuss how to assist an HIV-positive mother to choose the safest option for feeding her baby during the first 6 months of life: exclusive breastfeeding or exclusive replacement feeding.

Explain that understanding a woman's individual situation is important because it can help mothers and families to:

- Choose the best infant-feeding option for their circumstances.
- Prevent malnutrition.
- Prevent HIV transmission to the infant.

- Reduce the risk of infant mortality.

Explain that later in this course, other aspects of the WHO Consensus for giving guidance about stopping breastfeeding after the first 6 months will be discussed. Criteria will now be examined that are used to assist a mother in deciding which feeding option is best for her baby from birth to when he or she completes 6 months.

Remind participants that the National IYCF Policy and the WHO suggest that women who are HIV positive breastfeed their infants for the first 6 months unless AFASS criteria are met.

Ask: *What does AFASS stand for?*

- Acceptable
- Feasible
- Affordable
- Sustainable
- Safe

Ask participants to refer to the posters from the earlier session when they defined AFASS criteria.

Explain that when talking with women, there are other questions that can be asked to help her and you understand her situation, rather than asking is replacement feeding acceptable, feasible, affordable, sustainable, and safe.

Show **Slide 19/1. Counselling Card 5: Helping a mother decide how best to feed her baby**



Show **Slide 19/2**. Ask participants to review the back of the counselling card.

Explain that:

- The answers a woman gives to these questions can help determine if she meets the AFASS criteria.
- In order for replacement feeding to be safe, **she must meet all of the criteria. Only meeting one or some of the criteria is not enough.**

Demonstration: A counselling session on infant-feeding choices

Two other trainers now demonstrate how to use the counselling tools. One of the trainers plays the part of an infant-feeding counsellor and the other the part of a pregnant woman. A third trainer will make the comments (written in bold) during the role play.

Introduce the role play to the participants by making these points:

- We will now see a demonstration of how to use these tools. Imagine that a pregnant woman has recently tested positive for HIV. She has come to see the counsellor to discuss her options for feeding her baby.
- Follow along with your counselling cards.

Step 1: Explain the risks of MTCT

Counsellor:	'Hello (woman's name). Thank you for coming to talk to me about ways you could feed your baby. We want to help you to make a choice which is best for you, in your situation, and which gives the best chance for your baby to remain healthy.'
Comment:	Here the counsellor introduces the session, explaining that the purpose is to help the mother to make an appropriate feeding choice. The counsellor also emphasises the idea that we want a healthy baby. In many cases we have to balance the risks of HIV transmission with the risk of a baby getting very sick from diarrhoea or pneumonia. Now we will see the counsellor moving to Step 1: 'Explain the risks of mother-to-child transmission.'
Counsellor:	'What have you heard about the ways in which HIV can be transmitted from a mother to her baby?'
Woman:	'Well, I know that the baby can be infected during birth, and if I choose to breastfeed.'
Counsellor:	'It is true that babies may get HIV in these ways. Let me show you a picture which may help you to understand.' (Show Card 1 to the woman)
Comment:	The counsellor shows Card 1.
Counsellor:	'What do you see in this picture?'
Woman:	'I see some babies, and some of them have different coloured shirts on.'
Counsellor:	'This card shows 20 babies born to HIV-positive women. As you mentioned, HIV can be passed to the baby at three stages: during pregnancy, during delivery, and during breastfeeding. The babies with pink shirts are the babies that will NOT be infected at all. The babies with blue shirts were already infected with HIV through pregnancy and delivery. The babies with orange shirts are the ones who may be infected with HIV through breastfeeding.'
Woman:	'So don't all babies get HIV through breastfeeding?'
Counsellor:	'No—as you see most of them will not be infected. Some things can increase the risk of passing HIV through breastfeeding. For example, there is a higher chance if you have been recently infected with HIV or if you breastfeed for a long time. There are ways of reducing the risk of transmission by practising a feeding option that is appropriate for your situation. What other questions do you have about what I have just told you?'

Woman:	'I think I understand. I am relieved to hear that not all babies are infected through breastfeeding.'
Comment:	How did the counsellor introduce the risk of MTCT? Wait for a few replies, and then explain: She used an open question to assess the mother's understanding of the risk. She said: 'What have you heard about the ways in which HIV can be transmitted from a mother to her baby?' This is a useful way to introduce the concept of risk. Now the counsellor moves to Step 2 of the flow chart. She will explain the advantages and disadvantages of different feeding options starting with the mother's initial preference.

Step 2: Explain the advantages and disadvantages of different feeding options starting with the mother's initial preference.

Counsellor:	'There are various ways you could feed your baby. Is there any particular way you have thought of?'
Woman:	'Well, now that I know not all babies are infected through breastfeeding, can we talk about that first, as I breastfed my other children?'
Counsellor:	'Yes, what do you see in this picture?' (Show Card 3 to the woman.)
Comment:	At this point the counsellor shows Card 3 to the woman to help explain the next points.
Woman:	'I see a mother breastfeeding her baby, and someone trying to give her baby a cup. The mother seems to be refusing.'
Counsellor:	'Yes, this is about exclusive breastfeeding. What do you think exclusive breastfeeding means?'
Woman:	'Well, I'm not sure, but I saw something about it on a poster once.'
Counsellor:	'Yes, there are a lot of posters about exclusive breastfeeding these days. Exclusive breastfeeding means giving only breastmilk and no other drinks or foods, not even water. Exclusive breastfeeding for the first 6 months will lower the risk of passing HIV, compared to mixed feeding. Breastfeeding is an ideal food because it protects against many illnesses. Also, it prevents a new pregnancy. On the other hand, as long as you breastfeed, there is some chance that your baby might get HIV.'
Comment	At this stage the counsellor would go through the other advantages and disadvantages of exclusive breastfeeding with the mother using Card 3.
Counsellor:	'How do you feel about breastfeeding now?'
Woman:	'Oh, well, I could think about it. I'd still be worried about the baby getting HIV, though. Could you tell me about formula feeding?'

Comment:	The counsellor will discuss the questions and messages on Card 2, using counselling skills. Let us imagine that she has done this. Note that the counsellor has discussed the two options: exclusive breastfeeding and infant formula.
Counsellor:	'How do you feel about infant formula?'
Woman:	'I'm not sure. My husband really wants me to breastfeed but I think I would like to try formula. If I start formula could I change back later?'
Counsellor:	'It can be difficult to do. It can be very dangerous for the health of your baby and can increase the risk of transmission.'

Step 3: Explore with the woman her home and family situation and help the mother choose an appropriate feeding option.

Counsellor:	'We have just discussed the advantages and disadvantages of different feeding methods. After hearing all of this information, which method are you most interested in trying?'
Woman:	'I would like to use formula; I am worried about passing HIV to my baby.'
Comment:	Note that this is not the final decision by the woman. She may change her mind at a later stage.
Counsellor:	'Let's think together about the things you will need in order for you to decide if formula is the best choice for you.'
Woman:	'Yes, OK.'
Comment:	The counsellor shows the woman Card 5.
Counsellor:	'Where do you get your drinking water from?'
Woman:	'We have a tap in our kitchen with clean water.'
Counsellor:	'That's good—you need clean water to make formula. Can you prepare each feed with boiled water and clean utensils?'
Woman:	'That seems like too much work. Do I need to boil the water each time if we have clean water from the tap?'
Counsellor:	'Yes, it's recommended.'
Woman:	'OK, well then... I guess I could manage. I could ask my niece to help me.'
Counsellor:	'That's a good idea. What about preparing formula at night? Would you be able to do this two or three times each night?'
Woman:	'Can't I just prepare it before I go to bed and then just keep the bottle near the bed and use it all night?'
Counsellor:	'I understand why this might seem easier, but it's best to prepare the formula fresh for each feed. This will prevent your baby from getting sick... Perhaps we could talk about the cost of formula now?'
Woman:	'Oh, is it very expensive?'
Counsellor:	'Formula costs about 192 maloti per tin. For the first 6 months, you would need to buy around 40 tins, which would cost in total 8,000 maloti. Could you afford do to this?'
Woman:	'Yes, my husband has steady work. We could find the money.'

Counsellor:	'That's good that your husband is working. The cost of formula is likely to increase, so it is good to talk with your husband about how you plan to pay for these costs over the next 2 years. Does your husband know that you are HIV positive?'
Woman:	'Yes, he does. He's HIV positive too.'
Counsellor:	'It must be difficult for you, but it can be helpful that you both know. What about the rest of your family?'
Woman:	'We haven't told anybody else. We are afraid of what they might say.'
Counsellor:	'Oh, that must be a worry. In this case, how will your family feel if you don't breastfeed?'
Woman:	'My mother-in-law might get upset, since she breastfed all her children. She really thinks it's the best thing to do.'
Counsellor:	'What reason do you think that you could give her for why you don't want to breastfeed?'
Woman:	'Maybe I could tell her that I am taking some medicine which will affect the breastmilk. That happened to our neighbour last year.'
Counsellor:	'Do you think that your mother-in-law would accept this explanation? Or would she insist that you breastfeed?'
Woman:	'I think that she would accept it. That neighbour is a friend of hers, and her baby is doing OK.'
Counsellor:	'Remember once you begin to give infant formula, you can never give your baby breastmilk. Giving both formula and breastmilk at the same time can increase the risk of passing HIV to your baby.'
Comment:	At this stage, the counsellor would ask the woman if she would like to go through any other feeding options and whether she has any questions. The counsellor then moves to Step 4: 'Explain how to practice the chosen feeding option and give her the appropriate take-home pamphlet.'

Step 4: Explain how to practice the chosen feeding option and give her the appropriate take-home pamphlet.

Counsellor:	'We have talked about many things today. After all we have discussed, what are your thoughts about how you might like to feed your new baby?'
Woman:	'I am so confused. There seem to be good things and bad things about each feeding option for me. What would you suggest that I do?'
Counsellor:	'Well, let's think through the different ways, looking at your situation. You have breastfed your other children and your mother-in-law wants you to breastfeed.'
Woman:	'Yes, she does.'
Counsellor:	'Also, your husband knows that you are HIV positive, so perhaps he could support you to exclusively breastfeed... On the other hand, you do have all the things needed for you to be able to prepare formula feeds safely. You have clean water, fuel, and money to buy the formula (1,400 Maloti each month).'
Woman:	'That's right.'
Counsellor:	'As your husband knows your status, he could help to support and to formula feed and perhaps talk to his mother.'

Woman:	'Mmm. I would like to think more about this and discuss it with my husband. But I think I would like to give formula to this baby. I could explain to my husband about what you have said. I think he'll understand.'
Comment:	The counsellor did not tell the woman what to do. She summarised the reasons why the different feeding options would be suitable for her. The woman then made an initial choice, but will go home to discuss this with her husband. The counsellor would then go on to Step 5—Follow-up with the mother and baby. We will discuss this step in more detail in a later session.

Ask the participants if they have any questions about the role play or the use of the counselling tools.

Practise counselling skills

Now split into groups of three to four participants with one trainer. Give each group a copy of Counselling Stories 1 through 4. Each group should have a set of four stories, so that each participant can have a different one to practise with. Pass out copies of the Counselling Skills Checklist to each participant.

Explain what the participants will do:

- You will now use role plays to practise counselling women on feeding choices.
- You will work in groups of three to four, taking turns to be a 'mother' or a 'counsellor' or 'observer.'
- When you are the 'mother,' use the story on your card. The 'counsellor' counsels you about your situation. The other participants in the group observe.
- The trainer for each small group should explain to the participants what they should do, making the following points:
 - **When you are the 'counsellor':** Greet the 'mother' and introduce yourself. Ask for her name and use it. Ask one or two open questions to start the conversation and to find out why she is consulting you. Use each of the counselling skills to encourage her to talk to you. Use the counselling cards to help you counsel the mother. Especially, use the table to help her make her feeding choice based on her circumstances. If you feel comfortable, also use the relevant cards and take-home flyers on how to practise the chosen feeding option. When you use a card do not just read it. Use your skills to summarise the information without being prescriptive.
 - **When you are the 'mother':** Give yourself a name and tell it to your 'counsellor.' Answer the counsellor's questions from your story. Don't give all the information at once. If your counsellor uses good listening and learning skills, and makes you feel that she is interested, you can tell her more.
 - **When you are the observer:** Use your COUNSELLING SKILLS CHECKLIST. Observe which skills the counsellor uses, which she does not use, and which she uses incorrectly. Mark your observations on your list in pencil. After the role play, praise what the counsellor does right, and suggest what she could do better.
- Trainers each sit with a group of three to four participants. Make sure that the participants understand the exercise and do it as intended—and that the 'mother' doesn't give all the information at once. At the beginning of the exercise, give participants a few minutes to read their stories. After each role play, you lead the discussion. Then thank the participants and praise them for their efforts. Make sure that all participants have a chance to practise.

- Try to encourage the 'counsellor' to guide the mother to a choice in Step 4, without telling her what to do. This is difficult to do and participants will need a lot of practice.

Counselling story 1:

- You are 28-weeks pregnant with your first baby. You are a teacher, married to a lawyer. You live in your own house which has running water and electricity.
- You were tested and found to be HIV positive. You have not told your husband yet as you are worried about what he might think if you avoid breastfeeding. You are confused about what to do, as you think you could manage to formula-feed.
- You will take 3 months maternity leave when the baby is born and then go back to work. You will employ a nanny to look after the baby.

Counselling story 2:

- You are 35-weeks pregnant with your second baby. You have been tested and found to be HIV positive. You have not told anyone else at home that you are HIV positive. You live with your partner, your sister, and your mother.
- You breastfed your first baby—giving him breastmilk and glucose water for the first 2 months of life. Then, at the suggestion of your mother, you introduced solids when he was 3 months of age, as he started to cry a lot.
- You have to walk half a kilometre to collect water from a well. You have a paraffin stove, but sometimes use wood for fuel if you run out of money.
- Your mother receives a small pension. Your sister works part-time as a domestic worker. Neither you nor your partner are working.
- You are not sure how to feed this baby, but you are frightened to disclose your status to your family.

Counselling story 3:

- You are 39-weeks pregnant with your third baby. You found out you were HIV positive when you were 28 weeks pregnant.
- You work as a clerk in an office. You will be off work after you deliver for 6 weeks, and then you will return to your job. When you are working you are away from the house for 10 hours each day, and your mother-in-law will look after the baby.
- You breastfed your other two children, giving them breastmilk only for the first 4 weeks and then giving them breastmilk and formula milk when you went back to work. You introduced solids at 3 months, whilst continuing to breastfeed at night until they were about 1 year of age.
- You are married and live with your in-laws. Everyone in the family will expect you to breastfeed this baby. Only your husband knows your status. You are worried about anyone else suspecting that you are HIV positive.
- Your husband works as a mechanic. You have piped water to your kitchen and electricity to your home.

Counselling story 4:

- You are 34-weeks pregnant. You have not been tested for HIV. This is your first visit to the antenatal clinic. Your husband has been very sick for a few months. You think that he may have AIDS and you are worried that you may be infected too. You have received information about preventing HIV infection and were encouraged to breastfeed.
- You have come to the infant-feeding counsellor because you want to know how to get formula for your baby, as you think that it will be safer than breastfeeding.
- Statements that you might use:
 - 'My baby is due soon and I want to find out about getting infant formula for him.'
 - 'I am really worried because my husband is ill—he has been sick for a long time now. I don't know what the illness is, but it might be HIV so I think that I had better give my baby formula.'
 - 'I think it would be better if I didn't breastfeed at all—then the baby would be protected.'

Trainer's notes

Counselling story 1:

- This woman knows she is HIV positive.
- She has several of the conditions necessary to support replacement feeding. She has access to clean water and electricity; she has regular employment so could afford to buy formula milk; and will employ a nanny to look after her baby.
- The main issue here is that she has not disclosed to her husband. She is worried about him finding out her status and worried that he might suspect she is HIV positive if she avoids breastfeeding.

Counselling story 2:

- This woman knows she is HIV positive.
- She does not have access to clean water or a regular supply of fuel (if she runs out of money, she must find wood). She does not have regular employment and relies on the small income from her mother's pension and her sister's part-time work as a domestic.
- She has not disclosed her status to anyone and is frightened of them finding out.
- She breastfed her last baby—but not exclusively. She gave glucose water during the first few weeks and introduced solids early.
- This woman does not have the conditions necessary for safe replacement feeding. However, if she chooses to breastfeed she needs help and support to do this exclusively, as she has not had experience of this with her last baby.

Counselling story 3:

- This woman knows she is HIV positive and has disclosed only to her husband.
- She has breastfed previously, although not exclusively.
- She has electricity to her home, clean water in her kitchen, and help from her mother-in-law.
- Both she and her husband work so they could afford to buy formula milk.
- The main issue here is that the family expects her to breastfeed, and she is worried about disclosing her status by avoiding breastfeeding.
- One option for this woman would be to exclusively breastfeed for the first 6 weeks, then to change to formula feeds when she returns to work.

Counselling story 4:

- This woman does not know her HIV status.
- She is worried that her husband might have AIDS because he is sick, but her husband has not been tested. So they are both of unknown HIV status.
- Because she is worried that she might have HIV she thinks she should give formula feeds. So she has come to see the infant-feeding counsellor.
- The main issue here is that the woman does not know her status. She and her husband should be encouraged to test. However, if she does not wish to be tested she should be encouraged to exclusively breastfeed for the first 6 months and continue breastfeeding thereafter, as for an HIV-negative woman.

Session 20: Exclusive breastfeeding for the first 6 months

Learning objectives

After completing this session participants will be able to:

- Counsel a woman on exclusive breastfeeding using the following counselling cards:
 - Counselling Card 6: Understanding exclusive breastfeeding.
 - Counselling Card 7: How to exclusively breastfeed your baby for the first 6 months.
 - Counselling Card 8: How to hold and attach your baby for breastfeeding.
 - Counselling Card 9: Hand-expressing breastmilk.

Preparation

- Be prepared to demonstrate using Counselling Cards 6 through 9. Review these before the session and familiarise yourself with the content.
- Ask for a volunteer to play the role of the mother in the demonstration.
- Make sure that each participant has their copy of the counselling cards.

Suggested time: 45 minutes

Session guide

Explain the following:

- After a woman makes a decision about how to feed her infant, you present the counselling cards on how to safely feed her baby using her chosen method. The counselling cards on breastfeeding have messages that are appropriate for the entire population.

Demonstrate how to counsel a woman on exclusive breastfeeding using cards 6 to 9. Ask a participant to volunteer playing the role of the mother. You play the role of the health worker.

After you have finished, review the content on the front and the back of the counselling cards with the participants. Ask if they have any questions.

Divide participants into groups of three to practise using the cards through a role play; one will be a health worker, one will be the woman, and one will be the observer. Pass out copies of the Counselling Observation Checklist for the observer to use. Ask each group to do a role play similar to the one demonstrated using the counselling cards. Read the following role play:

Thithili is HIV positive and pregnant. She has decided to exclusively breastfeed her child. This is her first child so she has many questions about breastfeeding. She is worried that her mother-in-law will try to give the baby other foods and liquids, as she did to her sister-in-law's children.

After a few minutes, ask the group to come back to plenary. Facilitate a debriefing about their role plays:

- Was there a particular step that was challenging? If yes, why?
- What techniques for listening and learning were demonstrated during the exercise?
- What could 'health workers' do differently to improve this counselling session?

Ask if participants have questions, and respond to them.

Session 21: Exclusive replacement feeding for the first 6 months

Learning objectives

After completing this session participants will be able to:

- Describe breastmilk substitutes that can be used for replacement feeding.
- List foods that are unsuitable in the first 6 months.
- Describe how milks can be modified for infant feeding.

Preparation

- Collect containers, tins, and packets of all milks available locally, whether or not suitable for infants, including those provided by social service organisations and supplemental nutrition programs. Find out which milks are full-fat, semi-skimmed, or skimmed. In addition, collect a variety of miscellaneous products, e.g., fruit juices, sugary drinks, and tea.
- Put all the packets, tins, and cartons of milk together on a table in front of the class.
- Make two large signs: 'Possible for replacement feeding 0 to 6 months' and 'Unsuitable for replacement feeding 0 to 6 months.' Put the signs on different small tables, or at different ends of a large table. Participants will assign the various milks to the categories and put them next to the signs.
- Blank flip chart and markers.

Suggested time: 50 minutes

Session guide

Explain: A mother, who is HIV positive, and who has been counselled on infant-feeding options, may decide to use replacement feeding. So, we need to discuss what this mother could use to feed her baby.

Ask: When we talk about replacement feeding, what foods can be used for replacement feeding during the first 6 months?

Call attention to the table in the front of the room with all of the different milks, formula, juices, teas, and porridges. Ask participants to go up to the table and move each item under the acceptable and unacceptable signs.

After all of the items have been moved, ask participants to talk about why they moved certain items under each sign. Ask if everyone agrees.

Explain the following:

- According to the new WHO recommendations and the National Infant and Young Child Feeding Policy, **only** commercial infant formula is recommended during the first 6 months.
- Commercial infant formula is usually made from cow's milk that has had the fat removed and is dried to a powder. Another form of fat (often vegetable fat), sugar, and micronutrients are added. It needs only water added before use.
- In this session when we talk about replacement feeding, we are talking about commercial infant formula **ONLY**.

Ask participants if they have any questions about what is suitable for infants during the first 6 months. The following information can be shared if participants ask specific questions:

- **The following are NEVER suitable for infants during the first 6 months:**
 - **Skimmed milk** has the fat (cream) removed and therefore the energy level is low. Most of the vitamins A and D are also removed because they are in the milk fat.
 - **Semi-skimmed milk**, which contains 2% fat, is sometimes available. Milk normally contains more fat than this—about 3.5-4%. A baby may need additional energy if semi-skimmed milk is used.
 - **Condensed milk** has some of the water removed but a lot of sugar has been added. This extra sugar makes bacteria grow more slowly when the tin is opened. Also, the fat level may be reduced. This balance of fat and sugar in condensed milk make it very different from evaporated milk.
 - **Dried skimmed milk** has the fat and fat soluble vitamins removed.
 - **Most modified powdered milks**, such as 'creamers' used for 'whitening' tea or coffee or various filled milks, may have the animal fat removed and replaced with vegetable fat. Sugar may also be added, as well as ingredients to make it dissolve easily.
 - **Other foods and drinks** are sometimes used to feed infants less than 6 months of age—for example, juices, tea, sugary drinks. These fill a child's stomach and may reduce his appetite for nutritious foods. They are not suitable as an alternative to food for any young child.

Explain that around the world, WHO studies have shown that infants fed with replacement milk have six times greater chance of dying in the first month of life, and two times greater chance of dying between 4 and 6 months, compared with infants fed breastmilk. This risk continues until the second year of life (WHO HIV and Infant Feeding Technical Consultation, October 2006).

Ask: How can the risk of infection, malnutrition, and death be reduced for infants who are fed with infant formula during the first 6 months?

On a flip-chart sheet of paper, write each of the approaches mentioned by participants. If one of the approaches below is not mentioned you can suggest it and add it to the list.

- Ensure good personal and domestic hygiene (at home and in the kitchen).
- Feed the baby with a cup.
- Avoid baby bottles.
- Plan in advance for the purchase of infant formula.
- Visit the health centre at least once a month and take the infant there immediately if it falls ill.
- Request community support.
- Give only infant formula replacement milk (no breastmilk or other foods or liquids) for the first 6 months.
- Ask for support and assistance from family members.

Review each of the approaches briefly and ask participants what each means, ensuring that they cover the following points:

- **Ensure good personal and domestic hygiene (at home and in the kitchen):**
This means washing all utensils and bowls with boiling water and soap. In addition, the kitchen must be kept clean. Always wash the hands with clean water and soap before preparing meals, serving meals, and after having been to the toilet or after changing bedding.

- **Avoid baby bottles and pacifiers:**
Always use a cup and never use a baby bottle to feed the infant. Baby bottles are difficult to clean and tend to propagate bacteria more easily.
- **Plan in advance the purchase of infant formula:**
Always have at least one box of additional replacement milk at your house, and plan in advance the means to buy other boxes that will be needed.
- **Visit the health facility at least once a month (and immediately when the infant falls ill):**
To ensure the baby's best health and its protection against HIV, regular monitoring of its growth, health, and feeding is needed. Mothers/caregivers should visit the health centre to receive assistance with questions or concerns. It is also necessary to ensure that the baby receives its vaccinations, cotrimoxazole, and other care, and to ensure that the seropositive mother receives appropriate treatment and care for her health. It is important also to check with the mother when she visits the clinic to ensure the correct preparation of infant formula.
- **Request community support:**
Mothers should be supported in their decisions for infant feeding, and one way that this can happen is if the community is involved. If there are IYCF (or other) support groups, mothers can be referred to them. They can also be referred to community health workers in order to ensure follow-up and continuous support.
- **Give only appropriate replacement milk (exclusive infant formula)—never breastmilk:**
If an infant is fed infant formula and also receives even a small amount of breastmilk, the baby will have a much higher risk of being infected with HIV (greater than if breastfed exclusively).
- **Request family support:**
Try to ensure that there will be at least one other person at the home who will support the decision to feed the baby infant formula exclusively. This will help you avoid family pressure to breastfeed the baby in front of other family members, in public and during the night. The family should support the mother with food for her baby during the first 6 months.

Session 22: Hygienic preparation of feeds

Learning objectives

After completing this session participants will be able to:

- Explain the requirements for clean and safe feeding of young children.
- Demonstrate how to prepare a cup hygienically for feeding.

Materials and preparation

- Make sure that **Slides 22/1 through 22/6** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Copies of 'Five Keys to Safer Food,' located at the end of this session guide.

Suggested time: 30 minutes

Session guide

Make these points:

- A baby who is not breastfed is at increased risk of illness for two reasons:
 - Replacement feeds may be contaminated with organisms that can cause infection.
 - The baby lacks the protection provided by the breastmilk.
- After 6 months of age all children require complementary feeds. Clean, safe preparation and feeding of complementary foods are essential to reduce the risk of contamination and the illnesses that it causes.
- The main points to remember for clean and safe preparation of feeds are:
 - Clean hands.
 - Clean utensils.
 - Safe water and food.
 - Safe storage.

Clean Hands. Project **Slide 22/1.**



Ask: When is it important to wash your hands?

Wait for a few replies and then continue.

Explain

- We should always wash our hands:
 - After using the toilet, after cleaning the baby's bottom, after disposing of children's stools, and after washing nappies and soiled cloths.
 - After handling foods which may be contaminated, for example, raw meat and poultry products.
 - After touching animals.
 - Before preparing or serving food.
 - Before eating, and before feeding children.
- However it is not necessary to wash hands before every breastfeed if there is no other reason to wash them.
- It is important to wash your hands thoroughly:
 - With soap.
 - With plenty of clean running or poured water.
 - Front, back, between the fingers and under the nails.
- Let your hands dry in the air or dry them with a clean cloth. It is best not to dry them on your clothing or a shared towel.

Clean utensils. Show **Slide 22/2.**



Explain that when preparing feeds, it is important to keep both the utensils used and the preparation surface as clean as possible.

- Use a clean table or mat that you can clean each time you use it.
- Wash utensils with cold water immediately after use to remove milk before it dries on, and then wash with hot water and soap.

- If you can, use a soft brush to reach all the corners.
- Keep utensils covered to keep off insects and dust until you use them.
- Use a clean spoon to feed a baby complementary foods. Use a clean cup to give a baby milk or fluids.
- If a caregiver wants to put some of the baby's food into her mouth to check the taste or temperature, she should use a different spoon from the baby.

Safe water and food

Explain that safe water and food are especially important for babies.

Ask: *How can water be made safer for feeding babies?*

Wait for a few replies, and then show **Slide 22/3**.



Explain the following:

- Bring the water to a rolling boil before use. This will kill most harmful micro-organisms.
- A rolling boil is when the surface of the water is moving vigorously. It only has to 'roll' for a minute or two.
- Put the boiled water in a clean, covered, container, and allow to cool.
- The best kind of container has a narrow top, and a tap through which the water comes out.
- This prevents people from dipping cups and hands into the water, which can make it not safe.
- If the water has been stored for more than 48 hours it is better to use it for something else, for example, cooking, or give to older children to drink.

Safe storage. Show Slide 22/4.

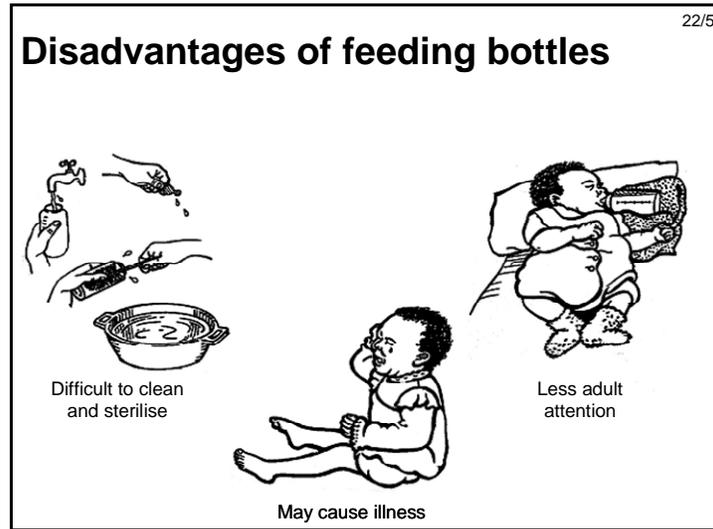


Explain the following about safe food storage:

- Food should be kept tightly covered to stop insects and dirt getting into it.
- Food can be kept longer when it is in a dry form, such as milk powder, sugar, bread, and biscuits, than when it is in liquid or semi-liquid form.
- Fresh fruits and vegetables keep for several days if they are covered, especially if they have a thick peel, like bananas.
- Fresh milk can keep in a clean, covered, container at room temperature for a few hours. Exactly how long depends on the condition of the milk when bought, and what the room temperature is.
- However, for an infant, **a prepared formula feed must be used within an hour.**
- If a mother does not have a refrigerator, she must make feeds freshly each time. When a feed has been prepared with formula or dried milk, it should be used within an hour, like fresh milk.
- If a baby does not finish the feed, the mother should give it to an older child or use it in cooking.
- Some families keep water hot in a thermos flask. This is safe for water. But it is not safe to keep prepared formula in a thermos flask. Bacteria grow when milk is kept warm.
- When talking with a mother or other caregiver, ask about how the household routine works—whether the mother cooks once or twice a day, whether she can prepare feeds many times a day, how often she goes to the market, and what facilities she has for storage. Help her to find ways of preparing the baby's food in a clean and safe way.

Using cups to give feeds.

Show Slide 22/5. Disadvantages of feeding bottles



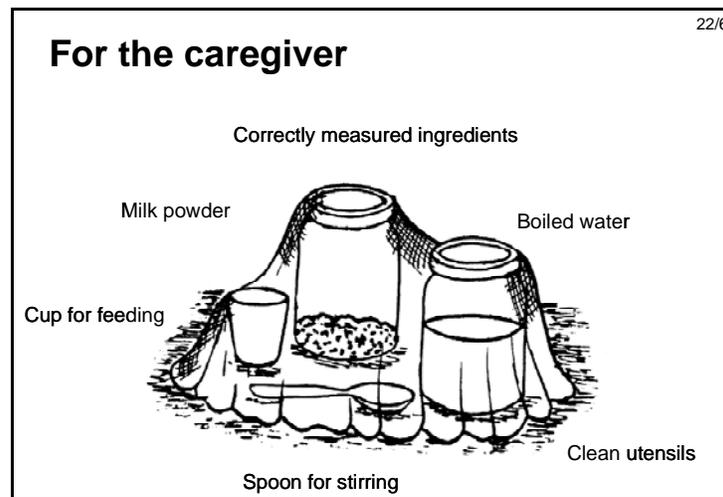
Earlier we talked about the advantages of cup-feeding.

- Bottles are difficult to clean and easily contaminated with harmful bacteria, particularly if milk is left in a bottle for a long time. Bottles and contaminated milk can make babies ill with diarrhoea.
- A bottle may be propped for a baby to feed itself, or given to a young sibling to feed the baby, so the baby has less adult attention and social contact.
- If a mother decides to use a feeding bottle, help her to do it in a way that ensures good contact with the baby, holding him close and making eye contact.
- Mothers need to know how to clean cups.

Cleaning a cup

- A cup does not need to be boiled, in the way that a bottle does.
- To clean a cup, wash it and scrub it in hot soapy water each time it is used.
- If possible, dip the cup into boiling water, or pour boiling water over it just before use, but this is not essential.
- An open, smooth-surfaced cup is easiest to clean.
- Avoid tight spouts, lids, or rough surfaces where milk could stick and allow bacteria to grow.

Show Slide 22/6.



Make the following points:

- A baby may be cared for by someone other than the mother for all or part of the time.
- A mother may feel it is safer to do as much of the preparation as possible herself, especially if the caregiver is young, inexperienced, or has difficulty measuring.
- This picture shows what a mother has to prepare if she is going to leave feeds ready for a caregiver.
- She cannot mix up a feed, because it will not be safe to feed the baby after an hour.
- She will have to leave the ingredients for the carer to mix.
- The mother still needs to leave clean utensils. She will have to boil and measure the water and the infant formula. She needs to cover them all and leave them in a cool, safe place, away from animals and insects.
- The mother must teach the caregiver to mix the ingredients just before she gives the feed, and to feed it from a cup.

Share the copies of the handout entitled 'Five keys to safer food.' Ask participants if they have any questions or if there are points that you can make clearer.

Summarise the session by explaining that in this session we discussed safe and clean preparation of replacement milk and complementary feeds. Health workers need to discuss these with mothers, and we will practice using counselling cards that can help you talk with mothers about safe and clean preparation of feeds.

Trainer's notes

Share the following with participants as a handout.

FIVE KEYS TO SAFER FOOD

Keep clean:

- Wash your hands before handling food and often during food preparation.
- Wash your hands after going to the toilet, changing the baby, or having contact with animals.
- Wash very clean all surfaces and equipment used for food preparation or serving.
- Protect kitchen areas and food from insects, pests, and other animals.

Separate raw and cooked foods:

- Separate raw meat, poultry, and seafood from other foods.
- Use separate equipment and utensils, such as knives and cutting boards, for handling raw foods.
- Store foods in covered containers to avoid contact between raw and prepared foods.

Cook thoroughly:

- Cook food thoroughly, especially meat, poultry, eggs, and seafood.
- Bring foods like soups and stews to the boiling point. For meat and poultry, make sure juices are clear, not pink.
- Reheat cooked food thoroughly. Bring to the boil or heat until too hot to touch. Stir while re-heating.

Keep food at safe temperatures:

- Do not leave cooked food at room temperature for more than 2 hours.
- Do not store food too long, even in a refrigerator.
- Do not thaw frozen food at room temperature.
- Food for infants and young children should ideally be freshly prepared and not stored at all after cooking.

Use safe water and raw materials:

- Use safe water or treat it to make it safe.
- Choose fresh and wholesome foods.
- Use pasteurised milk.
- Wash fruits and vegetables in safe water, especially if eaten raw.
- Do not use food beyond its expiry date.

Session 23: Preparation of commercial infant formula— Measuring amounts

Learning objectives

After completing this session participants will be able to:

- Specify amounts of formula needed for an infant who is not breastfed.
- Make measuring utensils for liquids.

Preparation

This session needs careful preparation. You will be demonstrating to participants how to measure different volumes of fluid and how to mark a mother's container so that she can measure this volume. Make sure that you have practised this before the session so that you are clear about what to do and do not confuse the participants.

Make sure you know which types of formula you are going to prepare in the Practical Session. This session requires some flexibility as the types of replacement milk that are appropriate for different areas will vary.

Be sure trainers stay with their groups to make sure that they understand what to do, and that they do it correctly and completely.

Materials

- Easily available see-through small containers—jars, glasses.
- Marker suitable for glass—ask permission before using a permanent marker on a participant's glass.
- Cloth for mopping spilt water.
- Water—about 2 litres of drinking water plus water for washing-up.
- Commercial infant formula.
- Make sure that each group finishes the session with a set of marked measures for liquid or formula. The set of measures can be used during the session 'Preparation of Commercial Infant Formula—Practical.'
- Make sure that **Slides 23/1 through 23/3** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.

Suggested time: 50 minutes

Session guide

Make these points:

- HIV-positive mothers who choose not to give breastmilk, and other caregivers, need to know how to prepare replacement feeds for their infants.
- Replacement feeds must be prepared in the safest possible way, to reduce the risk of illness. Mothers need to practise this skill with a health worker present, either in the health facility or at home, so they can do it easily and the same way every time.
- When a mother makes replacement feeds, it is very important that the formula and water are mixed in the correct amounts.
- Wrongly prepared feeds may make a baby ill, or he may be underfed. Repeated mistakes in measuring water or formula may have serious long-term consequences.

Amounts of formula needed

- In Session 14, we discussed cup-feeding a baby. Remember that a baby who is cup-fed can control how much he takes by refusing to take any more when he has had enough.
- The amount that a baby takes at each feed varies. But the caregiver must decide how much to put in a cup to offer the baby.

Ask: How much milk is needed for a cup-feed for a young infant?

Wait for a few replies and then continue.

- A term baby, weighing 2.5 kg or more, needs an average of 150 ml/kg body weight/day.
- This is divided into six, seven, or eight feeds according to the baby's age. The exact amount at one feed varies.

Show **Slide 23/1. Approximate amount of formula needed to feed a baby each day**

Approximate amount of formula needed to feed a baby each day 23/1			
Baby's age	Number of feeds per day	Amount of formula per feed	Total formula per day
Birth to 1 month	8	60 ml	480 ml
1 to 2 months	7	90 ml	630 ml
2 to 4 months	6	120 ml	720 ml
4 to 6 months	6	150 ml	900 ml

Make these points referring to the table:

- As you can see on the table, a newborn infant is fed small amounts frequently. The amount gradually increases as the infant grows.
- If a baby takes a very small feed, offer extra at the next feed, or give the next feed earlier, especially if the baby shows signs of hunger.
- Remember, if a baby is not gaining enough weight, he may need to be fed more often, or given larger amounts at each feed, according to his expected weight at that age.

Show **Slide 23/2. Approximate amounts of commercial infant formula needed by month**

23/2

Approximate amount of infant formula needed per month

Month	Number of 500 g tins per month	Number of 450 g tins per month	Number of 400 g tins per month
First month	4	5	5
Second month	6	6	8
Third month	7	8	9
Fourth month	7	8	9
Fifth month	8	8	10
Sixth month	8	9	10
Total for 6 months	40	44	51

Make these points:

- This table shows approximately how much commercial infant formula a baby needs in the first 6 months. The numbers are rounded rather than exact. An individual baby may need more or less than the amount listed. You will see that this table is also found on Counselling Card 12.

Ask participants to answer the following questions from the table.

- *How much commercial infant formula would you need to feed an infant for the first month?*
 - Choose the size of tin most commonly used in your area. Wait for a few replies and then continue. From the table you can see that you need about 2 kg or four 500 g tins of formula.
- *How much commercial infant formula would you need to feed an infant for the first 6 months?*
 - Wait for a few replies and then continue. If you add up all these months, you will find that a baby needs about 20 kg (40 x 500 g tins). (See the figures at the bottom of the table.)

A baby who is not breastfed needs a regular supply of commercial infant formula. A child continues to need infant formula after complementary foods are introduced, up to at least 1 year of age, and if possible 2 years. So, the mother needs to consider how she can provide infant formula for all this time.

Demonstration: Making measures

Now you will demonstrate how to make measures for the mother. Make these points:

- Commercial infant formula comes with a special measure (called a scoop) in the tin of powder. This should be used only for that brand of infant formula. Different brands may have different size measures.
- Scoops always have to be levelled. Use a clean knife or the handle of a spoon. Do not use heaped scoops.

- Show the measures from locally available commercial formula.
- You will have to show the mother how to measure water.

Ask: If a mother does not have a measuring jug or other container marked with amounts, how can she measure the water to make up a formula feed for her baby?

Wait for a few replies and then continue.

- A mother can bring a container from home that you can mark for her as a measure.
- The container should be:
 - Easily available.
 - Easy to clean and sterilise.
 - See-through.
 - Able to be marked with paint, permanent marker, or by scratching a line on it.
- Alternatively, the container could be used as a measure simply by filling it to the top.

Show some suitable containers. Explain that before a mother can use a container as a measure you need to mark the amount on the container, or show her how full it needs to be to measure the amount that she has to use.

Ask: How can you decide where to mark the mother's container?

Wait for a few responses and then continue.

- You can measure the correct amount of water or milk in your own measure, put it into the mother's measure, and make a mark at the level it reaches. If you have a measuring jug you can use that as your measure.

Using the measure which you have decided is most suitable, continue with these points to demonstrate measuring the water, and marking the mother's container (Slide 23/2). It does not matter what volumes you demonstrate to the participants—it is the principle of making a measure for a mother that is important.

Step 1: Decide what volume you are going to measure. This will depend on the type of milk you are preparing and the volume of the feed. For this example we will use 100 ml for a commercial infant formula feed for a baby during the first 2 weeks of life (the amount will continue to increase as the baby gets older).

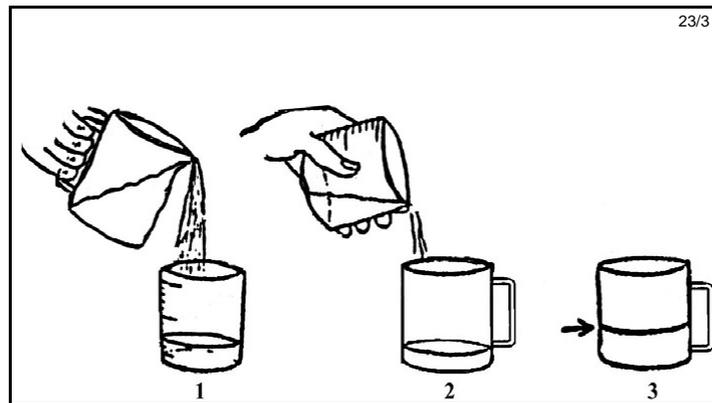
Step 2: Put water into your measure, to reach the 100 ml mark.

Step 3: Pour the 100 ml water from your measure into the mother's container.

Step 4: Help the mother to mark the level that the water reaches. For the measure to be accurate, the line should be thin and straight, not thick or sloped.

Explain to the mother that to make up a feed of 100 ml from commercial formula, she needs to measure this amount of water and add 4 scoops of commercial formula.

Show **Slide 23/3. Making measures**



Now ask each group to practise making different measures. Make sure you have prepared appropriate measuring containers for the practical session.

Ask participants if they have any questions, and try to answer them.

Remind participants that all the prepared measuring items will be used during Session 25, Practical Session 3—Preparation of commercial infant formula. Each person in a group will prepare a different volume of formula. One feed should be 50–70 ml (for a newborn baby). One feed should be 150 ml. You will practise making up different types of replacement feeds which are appropriate for the country.

Session 24: Practical Session 2—Preparation of commercial infant formula

Learning objectives

After completing this session participants will be able to:

- Demonstrate how to prepare replacement milk to a mother or caregiver.

Preparation and materials

- Make sure that **Slides 24/1 and 24/2** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- This session should have been discussed in detail beforehand. The milks you will prepare and the types of fuel you will use should be appropriate for your area and cover all local options. This session requires some flexibility as the types of replacement milk and fuels that are appropriate for different areas will vary. This session requires careful preparation by all trainers as the participants will work in small groups.
- The entire session can take place where the cooking will take place if it is suitable. The introduction and discussion are for the whole group together. For the rest of the time, the participants work in their small groups.
- Prepare a place where the groups can cook.
- Each group should use a different type of fuel commonly used in your area: e.g., wood, paraffin, charcoal. If there are six groups and only three types of fuel commonly used, then two groups will prepare feeds using the same type of fuel.
- Arrange for a fireplace or obtain enough stoves of a commonly used type for each group. Ensure that the stoves will work, that they have wicks and are filled with fuel.
- Obtain firewood, charcoal, paraffin, and/or other locally used fuels. Put wood where it will keep dry or dry out.
- Provide matches and any other necessary equipment—prickers for the stove, paper or kindling to start fires, etc.
- Mark each group's area, and try to allow enough space for their mats, utensils, and cookers.
- Discuss with the trainers their role during the session. Make sure all trainers are clear about what types of milk their group is preparing.
- You will follow the appropriate HIV and Infant Feeding Take Home Flyers as you prepare the replacement feeds. Make sure you have copies of the relevant flyers for your group.
- Be sure to emphasise that home-modified milks are not safe for replacement feeding and should only be used temporarily if a woman runs out of formula.

Time: 110 minutes

Session guide

Make these points:

- Helping mothers to prepare feeds is easier if you have done it yourself using equipment similar to what the mothers have at home.
- When counselling mothers on replacement feeding, knowing what is needed and how long these different options take to prepare is part of the information that you will need to give them.

- In this session, each participant in a small group will:
 - Prepare one type of commercial infant formula that is available locally.
 - Prepare a specific volume of feed.
 - Use one kind of fuel appropriate locally.
 - Give a clear demonstration to others in your group of what you do, as if you are demonstrating to a ‘mother,’ and check the ‘mother’ understands by helping her to practise making the feeds.
- You will also observe others preparing feeds, noticing what they do correctly (and praising them). If they do anything incorrectly, help them to improve their technique using your counselling skills.
- Consider the following as you observe others preparing feeds:
 - Are they preparing the feed in a clean and safe manner?
 - Are they mixing the correct amounts?
 - Are they heating and mixing the feeds correctly?
 - Are they explaining what they are doing in a clear way?

Explain the following:

- Until now when we have talked about replacement feeding we have talked about using only commercial infant formula. Animal milk, even if modified at home, is no longer recommended for replacement feeding during the first 6 months. This recommendation is based on studies and programs that have found that it is very difficult to prepare home-modified animal milk in a safe and nutritionally adequate way, and it can cause bleeding in the baby’s gut that cannot be seen. Therefore, home-modified animal milk should not be recommended as a feasible and safe long-term replacement feeding option for infants below the age of 6 months.

Ask: Are there any circumstances where home-modified animal milk could be used?

Allow participants to discuss.

Explain the following:

- The only time home-modified animal milk should be considered is when there is a temporary interruption (stock-out) in the supply of commercial infant formula; in addition, it should only be used for short-term feeding of non-breastfed infants below the age of 6 months. Messages about animal milk should only be given to women who have decided to give infant formula, and they should be encouraged to come in for additional counselling when their supply of formula is running low—before it runs out. At this time they can be counselled on modifying animal milk for a short time until they have infant formula. Home-modified animal milk is not a replacement feeding option during the first 6 months.
- If a family comes in with an infant whose mother has died, commercial infant formula is recommended. Refer the family to social welfare if they cannot afford to purchase infant formula. In an emergency, home-modified animal milk can be considered, taking into account that it is very nutritionally challenged.
- Home-modified animal milk is not recommended as a safe option. However, in an emergency (for example if there is a brief stock-out of commercial infant formula) it can be used if no safe options are available. Normally, micronutrients must be added to animal milk to be safe for human infants. If a baby is fed home-modified animal milk for a few days while waiting for commercial infant formula to be available, it would be acceptable (though not ideal) for it to be prepared without micronutrients. However, it is important to remember that home-modified animal milk should never be used as a long-term strategy.

Practical preparation of replacement feeds

Show each group where they will work. As soon as they are in their place, they can start to follow the instructions on the flyers. Encourage the group to take a note of how long each feed takes to prepare. If participants are preparing a fire and collecting water from a river, then the preparation time should start from this moment.

The trainers will work with their small groups to check that they:

- Have all their equipment and ingredients.
- Are doing the exercise correctly.
- Are working in a safe manner.
- Are observing and giving feedback to the others as appropriate.

Practical session discussion

Ask participants to come back to plenary to discuss what they learnt about preparing the feeds, and how easy or difficult it would be for mothers. Use the following questions to facilitate the discussion.

- *Which fuel was the easiest to use?*
- *Which milk was the most difficult to prepare and why?*
- *What are the things that a mother is most likely to have difficulty with, and perhaps make mistakes over and over?*
- *Would a mother be able to prepare these feeds many times a day?*
- *How could she manage at night?*
- *What special instructions would help her to prepare feeds both as safely and as easily as possible?*

Explain that there are several counselling cards that can be used when talking with mothers who have decided to replacement feed. Show **Slide 24/1. Counselling Card 10: How to prepare formula in a hygienic way**

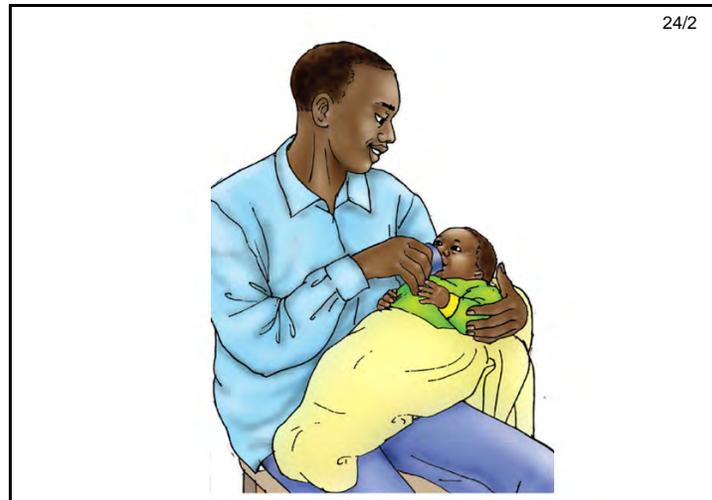


Ask: What do you see in this picture? How can women and families practice good hygiene when preparing formula?

Participants should mention the following:

- Wash your hands with soap and water before preparing formula or before feeding your child and also after going to the toilet.
- Wash your child's cup thoroughly with soap and clean, warm water.
- Keep food preparation surfaces clean using water and soap or detergent to clean them every day.
- The baby's dishes and utensils should only be used for feeding the baby.
- Always use water that has been boiled for mixing formula. Boiled water can be stored in a thermos and used for other feeds later in the day.

Project **Slide 24/2. Counselling Card 11. How to feed your baby formula with a cup**



Ask: What do you see in this picture? (Response: A baby is being fed by a cup.)

Explain the following:

- If a mother decides to feed her baby only formula for the first 6 months, it is best to feed from a cup. This is better than bottle feeding because:
 - It is harder to clean bottles and keep them clean, so they can have many germs that can make your baby sick.
 - Other members of the family can help feed the baby.

Using a doll, demonstrate how to feed a baby with a cup by doing the following:

- Clean the cup with soap and water before filling it with formula.
- Make sure your baby is awake. Sit in an upright position holding your baby. Put a cloth underneath his/her chin to catch any spills.
- Hold the cup to the baby's lips and pour it carefully so that the milk touches the lips and the baby swallows.
- Do not pour the milk quickly or push on the baby's lower lip. Let the baby take the milk at his/her own speed.
- When the baby closes the mouth and turns away, she/he has had enough.
- If your baby does not drink very much, offer him/her more at the next feed or feed him/her earlier than usual.
- Talk to your baby and look into your baby's eyes to show your love.

Trainer's notes

Fresh cow's milk or other animal's milk to be used for a baby also needs to be briefly boiled to kill harmful bacteria. Boiling also makes the milk more digestible. The milk and water can be boiled together. Milk sold in the shops may already have been heat-treated in various ways such as pasteurization, UHT (ultra-high temperature), or sterilization. These treatments kill the harmful micro-organisms, and they help the milk to keep longer if it is not opened. It can be used without boiling if it is used immediately on opening. After it is open, it will only keep as long as fresh milk. If it has been open more than an hour, it will need to be boiled before modifying it and giving it to a baby.

In addition to diluting, adding sugar, and boiling animal milk, it is necessary to give the micronutrients. Breastmilk contains the micronutrients that a baby needs, and if not breastfeeding these need to be provided in another way. Micronutrients are the vitamins and minerals that the body needs in small amounts to keep it working well. The micronutrients that may not be available easily from other milks are iron, zinc, vitamin A, vitamin C, and folic acid. Micronutrient supplements are added to commercial formula when it is manufactured. Infants who receive home-prepared infant formula need to be given extra micronutrients. Be aware of the locally recommended micronutrient formulations which will provide all the micronutrients needed for an infant aged 0 to 6 months. The recommended amounts of micronutrients are listed in this guide.

Some families keep water cool in a pottery jar, which allows evaporation of water from the surface. This method is not safe for milk storage.

If a mother is giving complementary foods, she should prepare them freshly each time she feeds the baby, especially if they are semi-liquid.

RECIPES FOR MODIFYING MILK IN EMERGENCIES

Note: Micronutrient supplements should be given with all these kinds of home-prepared milks.

Fresh cow's or goat's milk

40 ml milk + 20 ml water + 1 tsp sugar = 60 ml prepared formula

60 ml milk + 30 ml water + 1½ tsp sugar = 90 ml prepared formula

80 ml milk + 40 ml water + 2 tsp sugar = 120 ml prepared formula

100 ml milk + 50 ml water + 2½ tsp sugar = 150 ml prepared formula

Sheep's milk

30 ml milk + 30 ml water + ¾ tsp sugar = 60 ml prepared formula

45 ml milk + 45 ml water + 1¼ tsp sugar = 90 ml prepared formula

60 ml milk + 60 ml water + 1½ tsp sugar = 120 ml prepared formula

75 ml milk + 75 ml water + 2 tsp sugar = 150 ml prepared formula

MICRONUTRIENTS TO GIVE WITH HOME-MODIFIED ANIMAL MILK PER DAY

Minerals:

Manganese	7.5 µg
Iron	1.5 mg
Copper	100 µg
Zinc	205 µg
Iodine	5.6 µg

Vitamins:

Vitamin A	300 IU
Vitamin D	50 IU
Vitamin E	1 IU
Vitamin C	10 mg
Vitamin B ₁	50 µg
Vitamin B ₂	80 µg
Niacin	300 µg
Vitamin B ₆	40 µg
Folic acid	5 µg
Pantothenic acid	400 µg
Vitamin B ₁₂	0.2 µg
Vitamin K	5 µg
Biotin	2 µg

Session 25: Health care practices to support optimal infant feeding

Learning objectives

After completing this session participants will be able to:

- List and describe the health care practices summarised by The Ten Steps to Successful Breastfeeding.
- Explain why the Baby-Friendly Hospital Initiative (BFHI) is important in areas with high HIV prevalence.

Materials and preparation

- Make sure that **Slides 25/1 through 25/17** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Markers.
- Tape or other items for affixing papers on walls or chalkboards.
- Flip chart with The Ten Steps to Successful Breastfeeding listed as follows:

The Ten Steps to Successful Breastfeeding

Every facility providing maternity services and care for newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they are separated from their infants.
6. Give newborn infants no food or drink other than breastmilk, unless medically indicated.
7. Practise rooming-in—allow mothers and infants to remain together—24 hours a day.
8. Encourage breastfeeding on demand.
9. Do not give artificial teats or pacifiers (also called dummies or soothers) to infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Suggested time: 60 minutes

Session guide

Introduce The Ten Steps to Successful Breastfeeding and BFHI

Ask participants to refer to the flip chart with The Ten Steps to Successful Breastfeeding. (There is no need to read out the 'Ten Steps' as you will be covering them in detail during this session.)

Make these introductory points:

- Health care practices can have a major effect on breastfeeding.
- Poor practices interfere with breastfeeding, and contribute to the spread of artificial feeding.

- Good practices support breastfeeding, and make it more likely that mothers will breastfeed successfully, and will continue for a longer time.
- In 1989, WHO and UNICEF issued a Joint Statement called 'Protecting, Promoting and Supporting Breastfeeding: The Special Role of Maternity Services.' This describes how maternity facilities can support breastfeeding.
- The 'Ten Steps' are a summary of the main recommendations of the Joint Statement.
- They are the basis of the 'Baby-Friendly Hospital Initiative' (BFHI), a worldwide effort launched in 1991 by the WHO and UNICEF.
- If a maternity facility wishes to be designated 'Baby-friendly,' it must follow all of the 'Ten Steps.' There is clear evidence that where a combination of all the 'Ten Steps' are followed the outcome is better than if only a few steps are followed.

Make the following points:

- Since the launch of the BFHI in 1991 the growing HIV/AIDS pandemic, especially in sub-Saharan Africa and parts of Asia, has raised concerns and questions about promoting, protecting, and supporting breastfeeding where HIV is prevalent.
- These concerns arise because breastfeeding is known to be one of the routes for infecting infants with HIV.
- However, baby-friendly practices improve conditions for all mothers and babies, including those who are not breastfeeding.
- It is especially important to support breastfeeding for women who are HIV negative or of unknown status.

Explain The Ten Steps to Successful Breastfeeding

Explain that the following slides illustrate 'The Ten Steps to Successful Breastfeeding.'

Step 1: Have a written breastfeeding policy that is routinely communicated to all health staff

Show **Slide 25/1. Step 1.** Share the following information:

- Having a breastfeeding policy helps establish consistent care for mothers and babies.
- It also provides a standard that can be evaluated.
- The policy should cover:
 - The Ten Steps to Successful Breastfeeding.
 - An institutional ban on acceptance of free or low-cost supplies of breastmilk substitutes.
 - A framework for assisting HIV-positive mothers to make informed infant-feeding decisions that meet their individual circumstances and then support for this decision.

Step 2: Train all health care staff in skills necessary to implement this policy

Show **Slide 25/2. Step 2.** Share the following information:

- It is important that all staff members are trained to implement the breastfeeding policy.
- In hospitals where training is inadequate, health care practices do not improve.

Step 3: Inform all pregnant women about the benefits and management of breastfeeding

Show **Slide 25/3. Step 3,** and make the points that follow:

- It is important to talk to all women about breastfeeding when they come to an antenatal clinic. Show that you support breastfeeding, and that you want to help them.
- It is especially important to talk to young mothers who are having their first baby. They are the ones who are most likely to need help.
- There are some things that you can discuss with a group of mothers together, in an antenatal class. There are other things that it is usually better to discuss with mothers individually.

Present the following information about talking with pregnant women about breastfeeding.

- **With mothers in groups:**
 - Explain the benefits of breastfeeding, especially exclusive breastfeeding.
 - Most mothers decide how they are going to feed their babies a long time before they have the child—often before they become pregnant. If a mother has decided to use formula milk, she may not change her mind. But you may help mothers who are undecided, and give confidence to others who intend to breastfeed. You may encourage a mother to breastfeed exclusively instead of partially.
 - Talk about early initiation of breastfeeding and what happens after delivery; explain about the first breastfeeds and the practices in the hospital so that they know what to expect.
 - Give simple, relevant information on how to breastfeed (e.g., demand-feeding and positioning a baby).
 - Discuss mothers' questions.
 - Let the mothers decide what they would like to know more about, for example, some of them may worry about the effect that breastfeeding may have on their figures. It may help them to discuss these worries together.
- **With each mother individually:**
 - Ask about previous breastfeeding experience. If she breastfed successfully, she is likely to do so again. If she had difficulties, or if she formula-fed, explain how she could succeed with breastfeeding this time. Reassure her that you will help her.
 - Ask if she has any questions or worries.
 - She may be worried about the size of her breast or the shape of her nipples. It is not essential to examine breasts as a routine if she is not worried about them.
 - Build her confidence, and explain that you will help her.
 - Mostly you will be able to reassure that her breasts are all right, and that her baby will be able to breastfeed. Explain that you or another counsellor will help her.

Note: Antenatal education should not include group education on formula preparation.

Step 4: Help mothers initiate breastfeeding within an hour of birth
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Show **Slide 25/4. Step 4**, and **Slide 25/5. Early Initiation**. Have a participant read the fourth step.



Make the following points:

- This mother is holding her baby immediately after delivery. They are both naked, so that they have skin-to-skin contact.
- Help mothers initiate breastfeeding within an hour of birth. A mother should hold her baby like this as much as possible in the first two hours after delivery.

Ask: What can you do to prevent a baby from getting cold?

Participants should mention the following.

- Dry the baby, and cover both him and his mother with the same blanket.
- The mother should let the baby suckle when he shows that he is ready. Babies are normally very alert and responsive in the first 1 to 2 hours after delivery. They are ready to suckle, and easily attach well to the breast.
- Most babies want to feed between 30 minutes to 1 hour after delivery, but there is no exact fixed time.
- Try to delay non-urgent medical routines for at least 1 hour.

Ask: What medical routines occur in your hospital or clinic which could interrupt early contact between the mother and her baby?

Wait for a few replies. Encourage participants to think of ways in which these non-urgent medical routines could be postponed.

If the first feed is delayed for longer than about an hour, breastfeeding is less likely to be successful. A mother is more likely to stop breastfeeding early.

Show **Slide 25/6. Separation of mother and baby**, and make the following points:



- This baby was born about half an hour ago. He has been separated from his mother while she is resting and being bathed.

Ask: What is he doing with his mouth?

Wait for a few replies and then continue.

- He is opening his mouth and rooting for the breast. This shows that he is now ready to breastfeed but he is separated from his mother so she is not there to respond to him.
- Separating a mother and her baby in this way, and delaying starting to breastfeed should be avoided. These practices interfere with bonding, and make it less likely that breastfeeding will be successful.
- Remember mothers who have chosen not to breastfeed, for example, mothers who are HIV positive, and have decided to formula-feed, need encouragement to hold, cuddle, and have physical contact with their babies from birth onwards. This helps a mother to feel close and affectionate toward her baby. There is no reason that the baby of an HIV-positive mother should not have skin-to-skin contact after birth, even if the mother is not going to breastfeed.
- Mothers who are HIV positive and who have decided to breastfeed should be assisted to put the baby to the breast soon after delivery in the usual way.

Step 5: Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants

Show **Slide 25/7. Step 5**. Explain the following:

- Imagine a woman who has just delivered and the baby is having an early breastfeed. It is the first day of life. A midwife who has been trained in breastfeeding counselling has come to help the mother. Anyone competent at helping a mother to initiate breastfeeds could help a mother and baby with their first feeds.

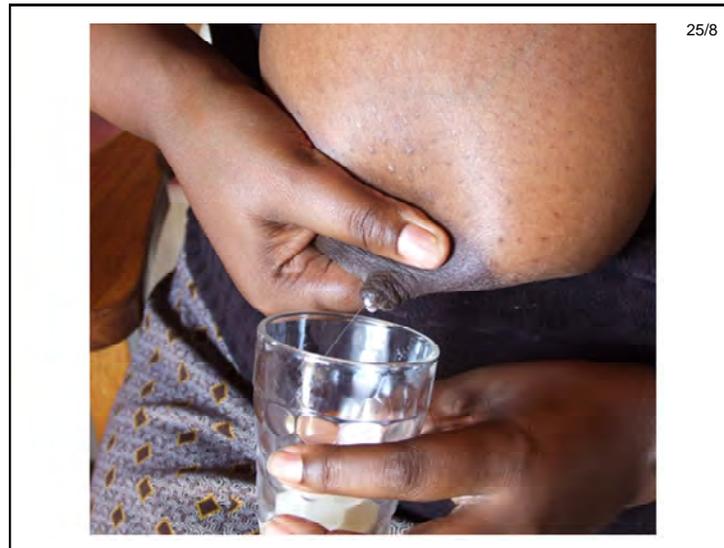
Ask: How would you suggest that this midwife help the mother?

Wait for a few replies. Participants should mention the following:

- Observing a breastfeed, helping the mother to position the baby, and giving her praise and relevant information.
- Keep a baby with his mother, and let him breastfeed when he shows that he is ready.

- Help his mother to recognize rooting and other signs that he is ready to breastfeed.
- It is a good idea for someone skilled in breastfeeding counselling to spend time with each mother during an early breastfeed to make sure that everything is going well. This should be routine in maternity wards before a mother is discharged. It need not take a long time.

Show **Slide 25/8. Expressing breastmilk**



Explain the following:

- Sometimes a baby has to be separated from his mother, because he is ill or of low-birthweight, and he needs special care.
- While they are separated, a mother needs a lot of help and support.
- She needs help to express her milk as you see a mother doing here. This is necessary both to establish and maintain lactation, and to provide breastmilk for her baby.

Make the following points:

- A mother may need help to believe that her breastmilk is important, and that giving it will really help her baby. She needs help to get her baby to suckle from her breast as soon as he is able.
- A common reason for babies to be separated from their mothers in some hospitals is after a caesarean section.
- It is usually possible for a mother to breastfeed within about 4 hours of a caesarean section—as soon as she has regained consciousness.
- Exactly how soon depends partly on how ill the mother is, and partly on the type of anaesthetic used. After epidural anaesthesia, babies can often breastfeed within 30 minutes to 1 hour.

Ask: Does a baby need a feed while he waits for his mother to breastfeed him?

Wait for a few replies and then continue.

- A healthy, term baby usually needs no food or drink before his mother can feed him.

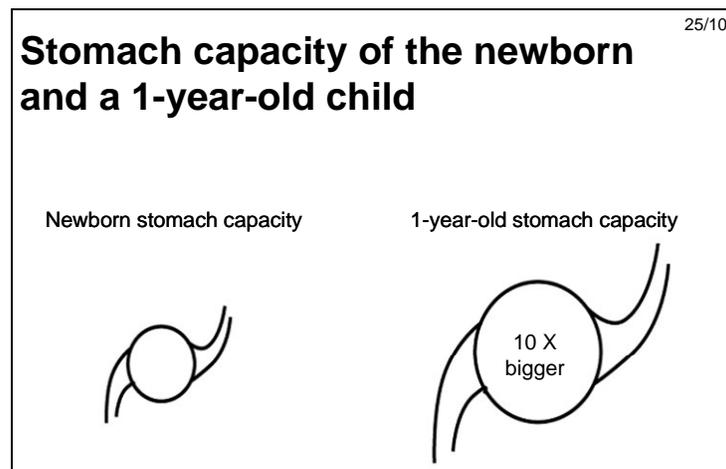
Step 6: Give newborn infants no food or drink other than breastmilk, unless medically indicated

Show **Slide 25/9. Step 6.** Have a participant read the step.

Make the following points:

- Any artificial feed given before breastfeeding is established is called a **prelacteal feed**.
- Prelacteal feeds replace colostrum as the baby's earliest feed. The baby is more likely to develop infections such as diarrhoea.
- If milk other than human milk is given to the baby, he is more likely to develop intolerance to the proteins in the feed.
- A baby's hunger may be satisfied by prelacteal feeds so that he wants to breastfeed less.
- If a baby has even a few prelacteal feeds, his mother is more likely to have difficulties such as engorgement. Breastfeeding is more likely to stop early than when a baby is exclusively breastfed from birth.
- Many people think that colostrum is not enough to feed a baby until the mature milk 'comes in.' However, the volume of an infant's stomach is perfectly matched to the amount of colostrum produced by the mother.

Show **Slide 25/10. Stomach capacity of the newborn and a 1-year-old child**



Explain that this slide shows that the volume of a newborn's stomach is approximately 10 times smaller than that of a 1-year-old child. The newborn does not need large quantities of milk in the first few days. Colostrum is sufficient.

Make the following points:

- Step 6 says that no food or drink should be given to newborn infants unless medically indicated.
- If a mother has been counselled, tested, and found to be HIV positive and has decided not to breastfeed, this is an acceptable medical reason for giving her newborn infant formula in place of breastmilk.
- Even if many HIV-positive mothers are giving replacement feeds, this does not prevent a hospital from being designated as baby-friendly, if those mothers have all been counselled and offered testing, and have made a genuine choice.

Step 7: Practise rooming-in: allow mothers and infants to remain together 24 hours a day

Show **Slide 25/11. Step 7.** Ask: *What are the advantages of rooming-in or bedding-in?*

Wait for a few replies and then continue. Participants should mention the following:

- It enables a mother to respond to her baby and feed him whenever he is hungry.
- This helps both bonding and breastfeeding.
- Babies cry less so there is less temptation to give bottle feeds.
- Mothers become confident about breastfeeding.
- Breastfeeding continues longer after the mother leaves the hospital.
- All healthy babies benefit from being near their mother, rooming-in or bedding-in.
- Mothers who are HIV positive do not need to be separated from their babies. General mother-to-child contact does not transmit HIV.

Step 8: Encourage breastfeeding on demand

Show **Slide 25/12. Step 8.** Ask: *What does breastfeeding on demand mean?*

Wait for a few replies and then continue.

- Breastfeeding on demand means breastfeeding whenever the baby wants, with no restriction on the length or frequency of feeds.

Ask: *What are the advantages of breastfeeding on demand?*

Wait for a few replies. Be sure that they mention the following advantages:

- There is earlier passage of meconium.
- The baby gains weight faster.
- Breastmilk 'comes in' sooner and there is a larger volume of milk intake on day 3.
- There are fewer difficulties such as engorgement.
- There is less incidence of jaundice.

Explain that a mother does not have to wait until her baby is upset and crying to offer him her breast. She should learn to respond to the signs that her baby gives, for example rooting, which show that he is ready for a feed.

Ask: *What would you suggest to a mother about how long she should let her baby suckle?*

Wait for a few replies and then continue.

- Let a baby suckle as long as he wants, provided he is well attached.
- Some babies take all the breastmilk they want in a few minutes; other babies take half an hour to get the same amount of milk, especially in the first week or two. They are all behaving normally.

Ask: *Would you suggest that a mother let her baby suckle from one breast, or from both breasts at each feed?*

Wait for a few replies and then continue.

- Let her baby finish feeding on the first breast, to get the fat-rich hindmilk. Then offer the second breast, which he may or may not want.
- It is not necessary to feed from both breasts at each feed. If a baby does not want the second breast, his mother can offer that side first next time, so that both breasts get the same amount of stimulation.

This step is still important for babies who are receiving infant formula. Their individual needs should be respected and responded to for both breastfed and artificially-fed infants. For example, rooting shows that he is ready for a feed.

Step 9: Give no artificial teats or pacifiers (also called dummies and soothers) to breastfeeding infants

Show **Slide 25/13. Step 9.** Have a participant read the step. Then show **Slide 25/14. Nipples, teats, and dummies.**



Make the following points:

- Teats, bottles, and pacifiers can carry infection and are not needed, even for the non-breastfeeding infant.
- Cup-feeding is recommended, as a cup is easier to clean and also ensures that the baby is held and looked at while feeding. It takes no longer than bottle feeding. You will remember that we learnt about cup feeding in Session 14.
- If a hungry baby is given a pacifier instead of a feed, he may not grow well.
- In this picture you see a low-birthweight baby being fed from a cup. We will discuss more about low-birthweight babies later in the course.

Step 10: Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital or clinic

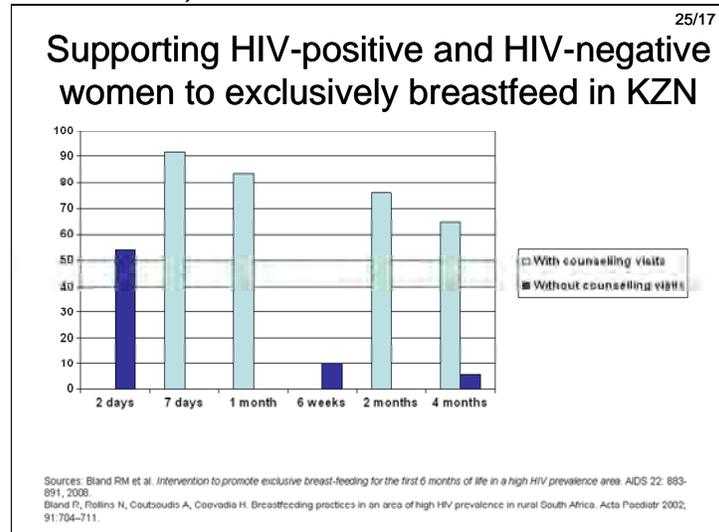
Show **Slide 25/15. Step 10,** and **Slide 25/16. Breastfeeding counselling and support.**



Explain the following:

- The key to best breastfeeding practices is continued day-to-day support for the breastfeeding mother within her home and community.
- Those who support breastfeeding mothers in the community do not have to be medically trained personnel.
- There is a lot of research which shows the effect of trained peer or lay counsellors on the duration of exclusive breastfeeding. These counsellors visit the mothers in their homes after discharge from the clinic or hospital, and support them to continue breastfeeding.

Show **Slide 25/17. Supporting HIV-positive and HIV-negative women to exclusively breastfeed in Kwa Zulu Natal, South Africa.**



Make the following points:

- This graph shows how trained lay counsellors in Kwa Zulu Natal, South Africa—an area with high HIV prevalence (roughly 40% among pregnant women) and low rates of exclusive breastfeeding—increased the proportion of infants of HIV-positive and HIV-negative mothers who were still exclusively breastfeeding at 4 months of age. The studied intervention significantly increased the likelihood of exclusive breastfeeding. At 4 months after birth, women who had received all of their scheduled counselling visits were more than twice as likely to be exclusively breastfeeding than those who had not.
- The light-green bars show the exclusive breastfeeding rates among study participants and the blue bars show the exclusive breastfeeding rates among participants in another study to assess breastfeeding practices that did not include an intervention.
- The study with the intervention using trained lay counsellors demonstrated high rates of exclusive breastfeeding in both HIV-positive and HIV-negative women in a high HIV prevalence area. This study shows that it is feasible to promote and sustain exclusive breastfeeding for 6 months with home support from well-trained lay counsellors, and that resolving conflicting messages around the role of breastfeeding is an integral part of this work.
- Lay counsellors were trained using the WHO Breastfeeding Counselling Course and the WHO Integrated Course (upon which this training is based). All participating women received one home counselling visit within 72 hours of delivery and breastfeeding mothers received three more visits in the first 2 weeks and biweekly visits until 6 months after delivery. All infant-feeding choices were discussed with the mothers during the visits, and the final choice of feeding method was up to the

mothers themselves. Study nurses also supported the mothers at their regular clinic visits.

- Many mothers need support regardless of their feeding method. Mothers with HIV who are not breastfeeding in a community where most mothers breastfeed may need extra support from a group especially concerned with HIV.

Ask participants if they have any questions, and answer them.

Trainer's notes

Examination of women's breasts: It is not essential to examine women's breasts routinely, because it is not often useful, and it can make a woman worry about them when she was quite confident before. However, it may be the policy in your health service to do so. If so, it gives you an opportunity to talk to the mother about breastfeeding. Almost always you will be able to reassure her that her breasts are good for breastfeeding.

Preparation of breasts for feeding: Preparing breasts physically for breastfeeding is not necessary. Traditional ways of preparing the breasts, that are culturally important, may give a mother confidence. If you feel that they help mothers psychologically, there is no need to discourage them. If a mother has flat or inverted nipples, doing stretching exercises, or wearing nipple shells during pregnancy, does not help. Most nipples improve towards the end of pregnancy and in the first week after delivery. A nipple that looked difficult in pregnancy may not be a problem after the baby is born. The most important time to help a mother is soon after delivery. If a mother is worried about inverted nipples, explain that they will improve, and that you can help her to breastfeed. Explain about how a baby suckles from the breast behind the nipple, not from the nipple itself. If a mother has a problem with her breasts that you are not sure about, such as previous breast surgery or burns, try to get help from someone more experienced. Meanwhile, it may help to encourage her that babies often can breastfeed from a breast which has had surgery, or that a baby can get enough milk from just one breast if necessary.

Bonding: Participants may need to discuss bonding at some length. Allow time to discuss this if necessary. Mothers may not be aware of bonding happening immediately. Strong affectionate ties grow gradually. But early close contact gives them the best possible start. Separation makes bonding more difficult, especially in high-risk families, for example, young mothers with poor support. However, the effects of early separation can be overcome, and bonding can also take place later, particularly during the first 9 months of a baby's life. If initiation of breastfeeding is delayed, for example, if a mother or her baby is ill, or for cultural reasons, breastfeeding can still be successfully established. It is helpful if the mother and baby have prolonged skin-to-skin contact as soon as possible, and if the mother is well supported. However, separation and delay put bonding and breastfeeding at risk, and should be avoided.

Reasons why mothers and babies are separated in hospital: There are four common reasons why mothers and babies are separated in hospital. The intentions behind them are often good, but the reasons themselves are unsound.

1. To allow the mother to rest. Immediately after delivery, both mother and baby are usually alert and need close contact. After this period, they can rest quite well together.
2. To prevent infection. There is no evidence that putting babies in nurseries reduces infection. On the contrary, it may increase cross-infection between babies, which can be carried by health care staff.

3. A lack of space in the wards for cots. Administrators can often overcome the problem of space if they realise how important rooming-in is. In many hospitals, babies stay in the same bed with their mothers, so there is no need for extra space.
4. To observe the baby. Health care staff can observe babies with their mothers just as well as in a nursery. Mothers observe their babies very closely, and they often notice something wrong before busy health care staff. There is no justification for separating mother and baby while waiting for a doctor to examine a baby.

Skin-to-skin contact and bacterial colonisation: Early skin-to-skin contact also enables harmless bacteria from the mother to be the first to colonise her baby. These harmless bacteria help to protect a baby against more harmful bacteria, such as those from the hospital and hospital staff.

Prophylaxis of eye infection: It may be health service policy to put either silver nitrate drops or tetracycline ointment into the eyes of all newborns to prevent gonococcal and chlamydial infection, which can lead to blindness. To be effective, the treatment must be given within 1 hour of delivery. To minimise any interference with breastfeeding, allow the baby to suckle if possible before putting in drops or ointment. Tetracycline ointment may be preferable, because it is less irritating than silver nitrate drops.

Medical indications for giving artificial feeds: Participants may want to discuss further the medical indications for giving artificial feeds. There are rare exceptions during which the infant may require other fluids or food in addition to, or in place of, breastmilk. The feeding programme of these babies should be determined by qualified health professionals on an individual basis.

The commonest reasons for giving prelacteal and supplementary feeds are:

- To prevent low blood sugar, or hypoglycaemia.
- To prevent dehydration, especially if a baby is jaundiced, and needs phototherapy.
- Because the mother's breastmilk has not 'come in.'

Full-term, normal-weight babies are born with a store of fluids and glycogen. Breastfeeding, which provides first colostrum and then mature milk, is all that they need. Sick or low-birthweight babies may require special feeding, for example, to prevent hypoglycaemia, or because they are unable to breastfeed. However, even for these babies, breastmilk is usually the best kind of feed to give. Babies who are jaundiced need more breastmilk, which helps to clear jaundice. Other fluids, such as glucose water, do not help to clear jaundice, and are only needed if the baby is dehydrated. Acceptable medical reasons for supplementation or replacement feeding include: severe illness in the mother if breastfeeding is difficult to achieve; maternal medications such as anti-metabolites, radioactive iodine, and some anti-thyroid drugs; absence of the mother; very-low-birthweight (<1500g) or born before 32 weeks gestational age (feeds are usually withheld for the first 24 hours); inborn errors of metabolism such as galactosaemia, PKU, and maple syrup urine disease; sick infants in intensive care; severe dehydration; and malnutrition.

Patterns of breastfeeding in the first few days: Babies differ very much in how often they want to feed. These patterns are all normal. For the first 1 to 2 days, a baby may not want many feeds. Some babies sleep for 8 to 12 hours after a good feed. Provided a baby is warm and well and not low-birthweight, and he has had at least one good breastfeed, it is not necessary to wake him at any fixed time for another feed. For the next 3 to 7 days, a baby may want to feed very often—as the milk supply becomes established. After that babies usually feed less often, but their habits continue to vary a lot. Any baby may want to feed more on some days and nights than on others.

Session 26: International Code of Marketing of Breast-milk Substitutes

Learning objectives

After completing this session participants will be able to:

- Explain how manufacturers promote formula milks.
- Summarise the main points of the International Code of Marketing of Breast-milk Substitutes.
- Describe how the International Code of Marketing of Breast-milk Substitutes helps to protect breastfeeding.
- Explain the difficulties with donations of formula milk.

Materials and preparation

- Make sure that **Slides 26/1 through 26/4** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart, with two pages labelled 'Promotion to the Public' and 'Promotion through Health Services.'
- Markers.
- If possible, gather some examples of promotional material from formula manufacturers.
- Ask two participants to prepare to give the demonstration.

Suggested time: 30 minutes

Session guide

Introduction

Introduce this session by making the following points:

- All manufacturers promote their products to try to persuade people to buy more of them. Formula manufacturers also promote their products to persuade mothers to buy more formula.
- This promotion undermines women's confidence in their breastmilk and makes them think that it is not the best for their babies. This harms breastfeeding.
- Breastfeeding needs to be protected from the effects of formula promotion. One essential way to protect breastfeeding is to regulate the promotion of formula, both internationally and nationally.
- Individual health facilities and health workers can also protect breastfeeding, if they resist letting companies use them to promote formula. This is an important responsibility.
- The government is in the process of finalizing the "Lesotho Code of Marketing of Certain Foods for Infants and Young Children, and of Feeding Bottles, Teats and Pacifiers"

Display the flip charts with the titles 'Promotion to the Public' and 'Promotion through Health Services.'

Ask: In what ways do manufacturers promote formula to the public?

Write participants' ideas on the flip-chart sheets with the title 'Promotion to the Public.' The list should include the following:

- Manufacturers stock shops and markets with formula and feeding bottles, so that mothers can always see them when they go shopping.

- They give free samples of formula to mothers. Sometimes this is part of another gift. We know that even mothers who intend to breastfeed are more likely to give up if they receive a free sample.
- They give coupons to mothers for a discount on formula.
- They advertise on radio, television, videos for hire, billboards, buses, and magazines.

Ask: In what ways do manufacturers use health workers and health facilities to promote formula?

Write participants' ideas on the flip-chart sheets with the title 'Promotion through Health Services.' The list should include the following:

- They give posters and calendars to health facilities to display on the walls. These are very attractive and make the place look better.
- They give attractive information materials to health facilities to distribute to families. Often there are no other materials to give to families, and some of the information is useful.
- They give useful bits of equipment, such as pens or growth charts, with the company logo on it. Sometimes they give larger items such as television sets or incubators to doctors or health facilities.
- They give free samples and free supplies of formula to maternity units.
- They give free gifts to health workers.
- They advertise in medical journals and other literature.
- They pay for meetings or conferences, workshops or trips, or they give free lunches for medical, nutrition, or midwifery schools.
- They fund and sponsor health services in many other ways, and give grants.

If you have any examples of promotional materials or free gifts from the manufacturers, show these to the participants at the end of the session or during the next break.

Describe the International Code of Marketing of Breast-milk Substitutes

Show **Slide 26/1. The International Code**

26/1

The International Code

- 1981 World Health Assembly adopted The Code, which aims to regulate promotion and sale of formula
- The Code is a code of **marketing**
- The Code covers all breastmilk substitutes – including infant formula, other milks or foods, including water and teas and cereal foods which are marketed for infants under 6 months, and teats and bottles

Share the following information:

- In 1981, the World Health Assembly (WHA) adopted the International Code of Marketing of Breast-milk Substitutes, which aims to regulate promotion and sale of formula. This Code is a minimum requirement to protect breastfeeding.
- The Code is a code of marketing. It does not ban infant formula or bottles, or punish people who bottle-feed. The Code allows baby foods to be sold everywhere, and it allows every country to make its own specific rules.
- The code covers all breastmilk substitutes—including infant formula and any other milks or foods, such as water, teas, and cereal foods, which are sometimes marketed as suitable for infants under 6 months of age, and also feeding bottles and teats.

Show **Slides 26/2 and 26/3** and review the main points.

26/2

Summary of the Main Points of the International Code

- No advertising of breastmilk substitutes and other products to the public.
- No free samples to mothers.
- No promotion in the health service.
- No company personnel to advise mothers.
- No gifts or personal samples to health workers.

26/3

Summary of the Main Points of the International Code (cont.)

- No pictures of infants, or other pictures idealizing artificial feeding, on the labels of products.
- Information to health workers should be scientific and factual.
- Information on artificial feeding, including that on labels, should explain the benefits of breastfeeding and the costs and dangers associated with artificial feeding.
- Unsuitable products, such as sweetened condensed milk, should not be promoted for babies.

Continue with the following points:

- Some people are confused and think that the Code no longer applies where there are women living with HIV, who may choose to feed their infants artificially.
- However, the Code is still relevant, and it fully covers the needs of mothers with HIV.
- If formula is made easily available, there is a risk that women who are HIV negative or who have not been tested will want to use it. They may lose confidence in

breastfeeding, and decide to feed their babies artificially. This spread is called 'spillover.'

- So implementing the Code is in fact even more important, both to protect HIV-positive mothers and to help prevent spillover.
- Supplies of breastmilk substitutes (where needed) should be distributed in a manner that is accessible and sustainable. They should be distributed in a way that avoids spillover to women who are breastfeeding.

Discuss and demonstrate the difficulties with donations of formula

Make these points:

- You may have heard that some manufacturers, distributors, or other organisations have offered to donate formula for women who are HIV positive. Let us look at what the Code says.

Show **Slide 26/4. Donated supplies**

26/4

Donated supplies

“ Where donated supplies of infant formula ... are distributed ... the institution or organization should take steps to ensure the supplies can be continued as long as the infants concerned need them ”

Make the following points

- Under the Code and its subsequent resolutions, these donations cannot be given through the health care system—that is, through maternity or paediatric wards, maternal and child health (MCH) or family planning clinics, private doctors' offices, or child care institutions.
- The health system, if it wishes, can provide free or subsidised formula to HIV-positive mothers, but the health service has to **buy** the formula to give to mothers, in the same way that it does for most drugs and food for patients and other supplies.
- In addition, the health service should ensure that the mother will have a supply of formula for as long as her infant needs it—that is, at least 6 months—and milk in some form after that.
- If hospitals and health centres have to buy formula, as they usually buy drugs and food, it is more likely that they will ensure that it is given out in a carefully controlled way, and not wasted or misused. Formula is more likely to be given only to mothers who are HIV positive, who have been counselled and who have chosen to use formula.

Ask the two participants whom you prepared to give the demonstration to read the words of the charity worker and Me Mamotlatsi.

Introduce the role play by making these points:

- Me Mamotlatsi has been counselled about HIV and about infant feeding, and has decided to use formula. The counsellor has referred her to a charity organisation to obtain free supplies of formula. She is talking to the charity worker who is **not** a counsellor.

DEMONSTRATION: DONATIONS OF INFANT FORMULA	
<i>Charity worker:</i>	'Good morning Me, how can I help you?'
<i>Me Mamotlatsi:</i>	(Nervous and embarrassed—looks around to see if anyone is observing her. Gives Charity Worker a letter.) 'Good morning, madam. The counsellor at the health centre gave me this letter to give you—she said that I can get some formula here to feed my baby, as I can't afford to buy any.'
<i>Charity worker:</i>	'Oh yes, I understand. Of course we can help you. I will give you these four tins of formula, which the company donated to us. This should be enough for 1 month. You learnt how to make it up in hospital, didn't you? Next time you go for the baby to be weighed, she will give you another note, and you can come back for more formula.'
<i>Me Mamotlatsi:</i>	'Thank you. I was so worried about how I would afford the tins. We have so little money. Now I know I will have enough to feed my baby.' (<i>Me leaves</i>)
Trainer:	Me returns to the charity worker 1 month later.
<i>Me Mamotlatsi:</i>	'Good morning—my baby is growing well on the formula that you gave me 1 month ago, but it is nearly finished, so I need some more.'
<i>Charity worker:</i>	'Oh dear, I am so sorry. I am afraid that we are out of stock at the moment, and we just don't have anything that we can give you. No more supplies have arrived—and all of the last delivery has been given out. I don't know what to suggest – I am really sorry, but there is nothing I can do. Can you come back next week? Perhaps some will have arrived.'
<i>Me Mamotlatsi: (crying)</i>	'What can I do now? My breastmilk has dried up, and I have no money to buy milk. How can I feed my baby?'

Ask: What points does this demonstration make? Does this happen in the country?

Let participants make some suggestions. They should mention at least some of the following points:

- Supplies need to be reliable and sustainable. Short-term supplies can be dangerous.
- It is risky to rely on donated supplies.
- When a woman has started to use formula, it is difficult to go back to breastfeeding.

Ask participants if they have any questions, and try to answer them.

Session 27: Importance of complementary feeding

Learning objectives

After completing this session participants will be able to:

- Explain the importance of continuing breastfeeding.
- Define complementary feeding.
- Explain the optimal age for children to start complementary feeding.
- List the Key Messages from this session.
- Discuss related complementary feeding activities.

Materials and preparation

- Make sure that **Slides 27/1 through 27/9** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart and markers.
- On the flip chart, write up the two Key Messages from this session. Arrange the words so that the first message can be uncovered with the second message still covered. (One way to do this is to have a sheet of blank flip-chart paper with tape on each side at the top. Move this cover down as needed.)
 - *Key Message 1: Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy.*
 - *Key Message 2: Starting when your child completes 6 months, give a variety of other foods in addition to breastmilk to grow well and be healthy.*
- Tape or other means of fixing the page to the wall or board.
- Scrap paper for participants to write their recommendations on. These will be used again in Session 33.
- Copies of Handout: 'Assess Your Practices' (located at the end of this session guide).

Suggested time: 45 minutes

Session guide

Make these points:

- The period from 6 completed months of age¹ until 2 years is of critical importance in the child's growth and development. You, as health workers, have an important role in helping families during this time.
- During the next few sessions we will list Key Messages to discuss with caregivers about complementary feeds.

Distribute scrap paper to each participant. Ask them to write down the most frequent recommendations or information that you give to caregivers about feeding children aged 6-24 months.

After participants have written on any piece of scrap paper, collect these and give them to the trainer who is conducting Session 34. We will come back to these recommendations in Session 34.

Discuss sustaining breastfeeding

Explain that:

- Starting at 6 completed months, a baby needs a variety of foods in addition to breastmilk because breastmilk alone no longer meets a baby's nutritional needs.

¹ Six completed months – 180 days, not the start of the sixth month.

Ask: *Why is it important to continue breastfeeding after 6 months?*

Wait for a few responses and then continue.

Make these points:

- In Session 2, we discussed the importance of continued breastfeeding. From 6 to 12 months, breastfeeding continues to provide half or more of the child's nutritional needs, and from 12 to 24 months at least one-third of their nutritional needs.
- As well as nutrition, breastfeeding continues to provide protection to the child against many illnesses and provides closeness and contact that helps psychological development.
- So remember to include this key point when talking about the baby over 6 months old.

Show **Slide 27/1. Key Message 1: Breastfeeding**, and ask a participant to read out the Key Message.

27/1

Key Message 1

Breastfeeding for two years or longer helps a child to develop and grow strong and healthy

Make the following points:

- IYCF counsellors can do a lot to support and encourage women who want to breastfeed their babies. You can help to protect good practices in a community. If you do not actively support breastfeeding, you may hinder it by mistake.
- Every time you see a mother, try to build her confidence. Praise her for what she and her baby are doing right. Give relevant information, and suggest something appropriate.
- Children who are not receiving breastmilk should receive another source of milk and need special attention. There are special recommendations for feeding the non-breastfed child from 6 to 24 months. We will be looking at these recommendations in the following sessions.

Define complementary feeding

Make these points:

- An age is reached when breastmilk alone is insufficient to meet the child's nutritional needs, and at this point complementary foods must be added. Let us examine what complementary feeding means.

Show **Slide 27/2. Definition of complementary feeding**, and read out the definition:

27/2

Definition of complementary feeding

- Providing other solid and semi-solid foods and liquids along with breastmilk or breastmilk substitute (e.g., commercial infant formula, animal milk) 6 to 24 months.

Explain:

- These additional foods and liquids are called **complementary foods**, as they are additional or complementary to breastfeeding, rather than adequate on their own as the diet. Complementary foods must be nutritious and in adequate amounts so the child can continue to grow.
- The term '**complementary feeding**' is used to emphasise that this feeding complements breastmilk rather than replacing it. Effective complementary feeding activities include support to continue breastfeeding.
- During the period of complementary feeding, the young child gradually becomes accustomed to eating family foods. In addition to the nutritional importance, it also contributes to psychomotor and behavioural development. Feeding includes more than just the foods provided. *How* the child is fed can be as important as *what* the child is fed.

Discuss the optimal age to start complementary feeding.

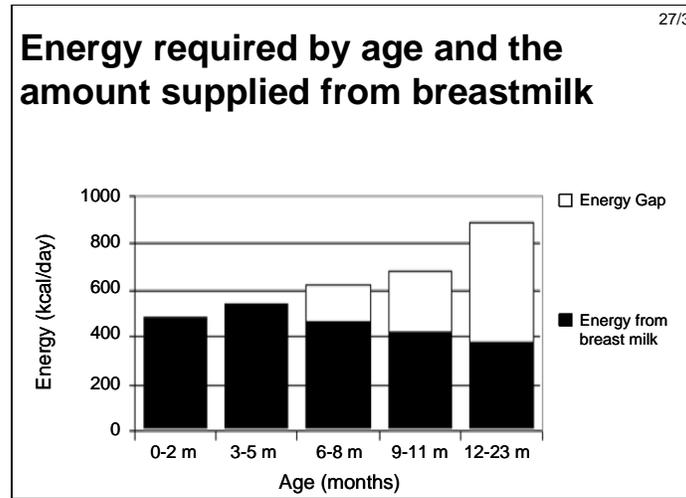
Ask: What do our bodies use food and nutrients for?

Allow participants to discuss quickly.

Explain energy needs:

- Our body uses food for energy to keep alive, to grow, to fight infection, to move around, and to be active. Food is like the wood for the fire—if we do not have enough good wood, the fire does not provide good heat or energy. In the same way, if young children do not have enough good food, they will not have the energy to grow and be active.

Show **Slide 27/3**. Energy required by age and the amount supplied from breastmilk



- On this graph, each column represents the total energy needed at that age. The columns become taller to indicate that more energy is needed as the child becomes older, bigger, and more active. The dark part shows how much of this energy is supplied by breastmilk. *(Point to the dark area on the graph.)*
- You can see that from about 6 months onwards there is a gap between the total energy needs and the energy provided by breastmilk. The gap increases as the child gets bigger. *(Point to the white area on the graph.)*
- This graph represents an 'average' child and the nutrients supplied by breastmilk from an 'average' mother. A few children may have higher needs and the energy gap would be larger. A few children may have smaller needs and thus a smaller gap.
- Therefore, for most babies, 6 months of age is a good time to start complementary foods. Complementary feeding from 6 completed months helps a child to grow well and be active and content.

Show **Slide 27/4**. Key Message 2: When to start complementary feeding

27/4

Key Message 2

- Starting when your child completes 6 months, give a variety of other foods in addition to breastmilk to grow well and be healthy.

A photograph showing a woman sitting at a table with a baby. She is holding a spoon and feeding the baby. There are bowls of food on the table.

- After 6 completed months, babies need to learn to eat thick porridge, puree, and mashed foods. These foods fill the energy gap more than liquids.
- When a baby completes 6 months of age it becomes easier to feed thick porridge and mashed food because babies:
 - Show interest in other people eating and reach for food.
 - Like to put things in their mouth.
 - Can control their tongue better to move food around their mouth.
 - Start to make up and down 'munching' movements with their jaws.
- In addition, at this age, babies' digestive systems are mature enough to begin to digest a range of foods.

Ask: What might happen if complementary foods are started too soon (before 6 months)?
Wait for a few replies, and then continue.

Show **Slide 27/5. Starting other foods too soon**

27/5

Starting other foods too soon

Adding foods too soon may

- take the place of breastmilk
- result in a low nutrient diet
- increase risk of illness
 - less protective factors
 - other foods not as clean
 - difficult to digest foods
- increase mother's risk of pregnancy

Adding complementary foods too soon may:

- Take the place of breastmilk, making it difficult to meet the child's nutritional needs.
- Result in a diet that is low in nutrients if thin, watery soups and porridges are used.
- Increase the risk of illness because less of the protective factors in breastmilk are consumed.
- Increase the risk of diarrhoea because the complementary foods may not be as clean or as easy to digest as breastmilk.
- Increase the risk of wheezing and other allergic conditions because the baby cannot yet digest and absorb non-human proteins well.
- Increase the mother's risk of another pregnancy if breastfeeding is less frequent.

Ask: What might happen to the child if complementary foods are started too late (older than 6 months)?

Wait for a few replies, and then continue.

Show **Slide 27/6. Starting other foods too late**

27/6

Starting other foods too late

Adding foods too late may

- result in child not receiving required nutrients
- slow child's growth and development
- risk causing deficiencies and malnutrition

Starting complementary foods too late is also a risk because the child:

- Does not receive the extra food required to meet his/her growing needs.
- Grows and develops more slowly.
- Might not receive the nutrients to avoid malnutrition and deficiencies such as anaemia from lack of iron.

Exploring feeding practices

Ask the following questions:

- *When do most mothers/caregivers start to give foods and liquids other than breastmilk in our country?*
- *What are the reasons why a family might start to give foods before a baby completes 6 months?*

Write all responses on a flip chart. Examples of possible responses include the following:

- Families may decide a young child is ready for complementary foods because they notice certain developmental signs, such as reaching for food when others are eating or starting to get teeth.
- Families may decide the baby needs additional foods because the baby is showing what they believe to be signs of hunger. Signs such as the baby putting his hands to the mouth may be normal developmental signs, not signs of hunger.
- Sometimes a family may decide to start complementary feeding because they believe that the baby will breastfeed less and the mother will be able to be away from the baby more.
- Complementary foods may be started because a baby under 6 months of age is not gaining weight adequately.
- A family may be influenced by what other people say to them about starting complementary foods. They may listen to a neighbour, their mother, a health worker, or even advertisements for baby food products.

Explain the following:

- Knowing why families start complementary foods helps you to decide how to assist them. For example, a mother may give foods to a very young baby because she

thinks she does not have enough breastmilk. Once you understand her reason, you can give her appropriate information.

- Complementary feeding should be started when the baby can no longer get enough energy and nutrients from breastmilk alone. For all babies this is 6 completed months of age.

Ask participants to read each of the reasons listed on the flip chart and ask for volunteers to list ways to address these reasons, one at a time. Facilitate a discussion and ask other participants if they think this is a good approach. Encourage participants to share their experiences talking with families about appropriate complementary feeding.

Ensuring adequate complementary feeding

Make the following points:

- Adequate nutrition in early childhood is essential for development.
- Poor nutrition during the first 2 years of life can permanently impair physical and mental development.

Show **Slide 27/7. Complementary foods should be...**

27/7

Complementary foods should be

- Rich in energy and nutrients
- Clean and safe
- Easy to prepare family foods
- Locally available and accessible

Ask the participants to describe how to meet young children's nutritional requirements. Write their answers on a flip chart.

Explain that health workers and IYCF counsellors should help mothers understand the key factors that impact the quality of complementary feeding.

Show **Slide 27/8**. Key factors to ensure proper complementary feeding

27/8

Key factors to ensure proper complementary feeding

- Amount of food consumed
- Consistency of food consumed
- Variety of food consumed
- Frequency of meals
- Safe and clean handling of foods
- Responsive feeding techniques

Inform participants that we will cover each of these in more detail over the upcoming sessions.

Examine the role of the health worker and the health facility

Show **Slide 27/9**.



Make these points:

- Parents of young children may receive information about feeding their child from many sources, such as families, health facility personnel, and community members.
- Here is a picture of a mother with her 7-month-old daughter. She has brought her daughter to the health facility regularly for immunisations and health checks.

Ask: Imagine she is coming to visit your health facility. What are all of the feeding or nutrition-related activities that she could have found on their visit to you or your health facility?

Write participants' comments on a flip chart.

Pass out copies of the handout: 'Assess Your Practices.' Ask participants to think about the health facility where they work.

Ask: When a young child comes to your facility—both well and sick children—what activities occur related to nutrition?

Share the following instructions:

- Fill in the table with the activities that occur.
- You may add comments to help clarify your marks in the table. For example, if all children who attend the well-baby clinic are weighed and measured but those who attend sick-baby clinic are just weighed, you can note this. For another example, if all children who see a nutritionist receive some nutrition counselling or discussion but children who do not see the nutritionist do not, you can note this.

Trainers go around their group as they are writing to ensure that participants understand the exercise. Encourage participants to think of their own situations. Allow about 10 minutes for this exercise.

Return to the larger group. Briefly summarise the findings of the exercise by asking the following questions:

- *What are the practices that occur most frequently at your place of work?*
- *What are the practices that occur least frequently?*

Make these points:

- The nutritional status of a child affects overall health. Health is not only growth and development but also the ability to fight off illness, and recover from illness. This means the nutritional status of children is important to all health staff, and that all health staff should promote good feeding practices.
- Creating a health facility environment that gives importance to children's nutrition will go a long way in promoting healthy children.

Summarise the session

Ask participants if they have any questions or if there are points you can make clearer.

Make these points:

- In this session, we discussed the importance of adequate and timely complementary feeding.
- We had two Key Messages.
 - Key Message 1: Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy.
 - Key Message 2: Starting when your child completes 6 months, give a variety of other foods in addition to breastmilk to grow well and be healthy.

Display the flip-chart pages with the Key Messages from this session. Keep these messages displayed throughout the course.

HANDOUT: ASSESS YOUR PRACTICES				
Does this practice occur?	With all children	With some children	Does not occur	Comments
Weigh child				
Measure child's length				
Review child's growth chart and determine if the child is underweight or (if possible) growing inadequately				
Discuss how the child is feeding				
Note on child's chart that feeding was discussed				
Carry out demonstrations of young children's food preparations and feeding techniques				
Make home visits to assess foods and feeding practices				
Other Activities				

Most frequent nutrition-related activities occurring in your health facility:

Least frequent nutrition-related activities occurring in your health facility:

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.

Materials and preparation

- Make sure that **Slides 28/1 through 28/4** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart and markers.
- Tape or other items for affixing papers on walls or chalkboards.
- On the flip chart, write up the Key Message from this session.
 - *Key Message 3: Foods that are thick enough to stay in the spoon give more energy to the child.*
- You need a bowl or plate that would be used when feeding a young child.
- Find out if germinated flour or fermented porridge is used in the area. If so, include the relevant section.
- Adapt lists of foods to reflect those available locally.
- You need food demonstration equipment as described below. Practise the demonstration beforehand.

CONSISTENCY DEMONSTRATION EQUIPMENT

- Extra table or tray in case porridge spills.
- Two empty see-through containers that will each hold 200 ml when filled to the top for the 'stomach.' This could be a drinking glass, or a plastic container such as a soft drink bottle, cut to the right size. Sharp scissors or knife to cut the soft drink bottles, if needed.
- Measuring jug or other means to measure 200 ml.
- 400 ml made-up porridge from a suitable local staple. Make up to a thick consistency so that it stays easily in the spoon when the spoon is tilted. Divide the cooked porridge into two even portions:
 - One portion put in a bowl or container that holds at least 500 ml. Later you will stir water into this portion.
 - The other portion you will use undiluted. The container size does not matter.
- Extra water (about 200 ml) to dilute porridge.
- A large eating spoon.
- Cleaning materials to tidy up afterwards, including hand-washing facilities.
- This session can be conducted with a second trainer carrying out the demonstration while the first trainer speaks.

Practise this demonstration to ensure the quantities of porridge are right for the 'stomach.' The first portion should be about twice as much (after diluted) as the stomach size. The second portion should all fit in with none left over and the stomach full.

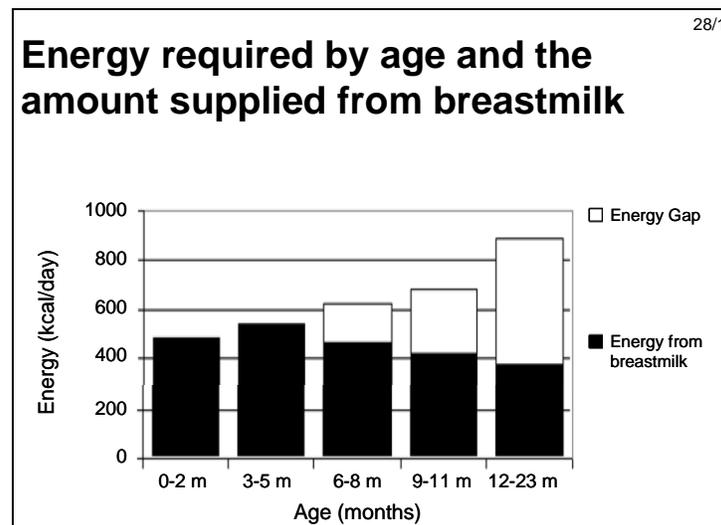
Suggested time: 40 minutes

Session guide

Make these points:

- 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.

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



Ask: Why do you think the gap becomes bigger as the child grows older (point to white space)?

Wait for a few replies and then continue.

- 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.

Outline foods that can fill the energy gap

Make these points:

- Think of the child's bowl or plate (*Hold up the child's bowl*).
- The first food we may think of 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.

Ask: What are the main staples eaten in your community?

Write participants' replies on the flip chart. Make sure that the following points are mentioned:

- 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.

Ask: Look again at the list of staples that you made on the flip chart. Which of these staples are given to young children?

Wait for a few replies and then continue. Mark which staples are given to children. Make these points:

- 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.

Ask: Does the staple used in this community depend on where you live or on the time of the year?

Wait for a few replies and then continue.

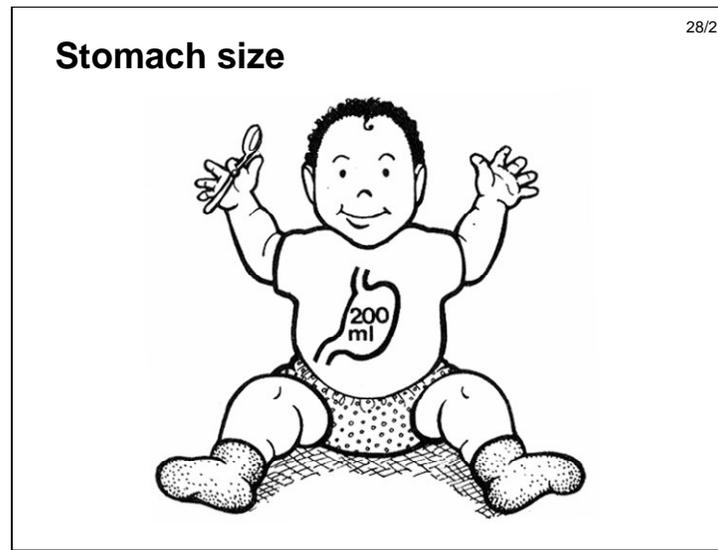
- Preparing the staple may take a lot of the caregiver's time. Sometimes a family will use a more expensive staple that requires less preparation or less fuel for cooking rather than use a cheaper staple.

Demonstrate using a thick consistency of food

Introduce the next section with these points:

- 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, be 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.

Show **Slide 28/2. Stomach size**, and make the points that follow:



- This is Seipati. He is 8 months old. At this age, Seipati's stomach can hold about 200 ml at one time. This is the amount that fits into this container.

Show the empty see-through container that holds 200 ml.

- 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.

Use one portion of the made-up porridge and dilute this portion of porridge to at least twice the volume and show to participants.

- Now the porridge looks like this (thin and watery).

Ask: Can all this thin porridge fit in his stomach?

Wait for a few replies. Spoon or pour the porridge into the see-through container 'stomach' as you ask the question. Wait for a response and then continue.

- No, it cannot all fit in his stomach, there is still porridge left in the bowl. Seipati's stomach would be full before he had finished the bowlful. So Seipati would not get all the energy he needs to grow.
- Seipati's mother has talked with you, the health worker, and you have suggested that she give thick porridge. The mother makes the porridge using the same amount of maize but does not add extra water. The porridge looks like this (thick).

Ask: Can all this thick porridge fit in Seipati's stomach?

Use the other portion of the made-up porridge but do not dilute it. Show the participants how thick it is. Spoon all the porridge into the see-through container 'stomach' as you ask the question. Wait for a few replies and then continue.

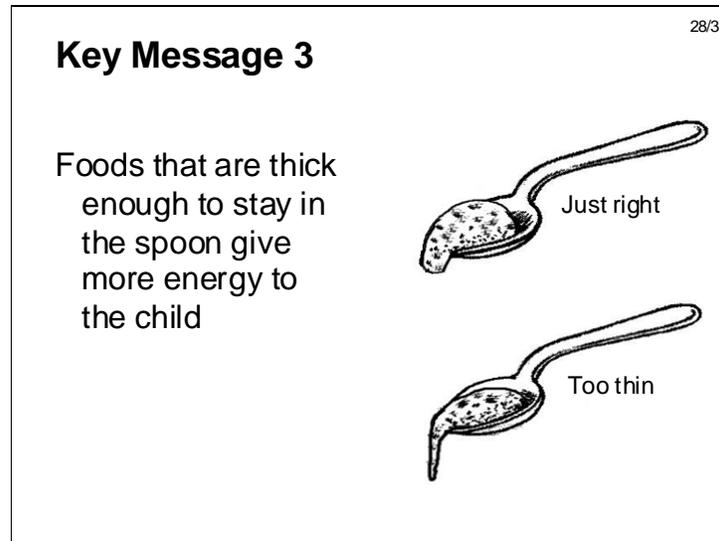
- Yes. Seipati can eat a bowlful, which will help meet his energy needs.

Now, use a spoon to demonstrate the consistency of the porridge.

- 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 to how well that food meets the young child's energy needs. Foods of a thick consistency help to fill the energy gap.
- So when you are talking with families, give this Key Message:

Show **Slide 28/3. Key Message 3: Thick foods**, and ask a participant to read out the Key Message:



Ways to enrich foods

Explain:

- 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.

Ask: How could families make the young child's food more energy-rich?

Wait for a few replies and then present the following information.

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.

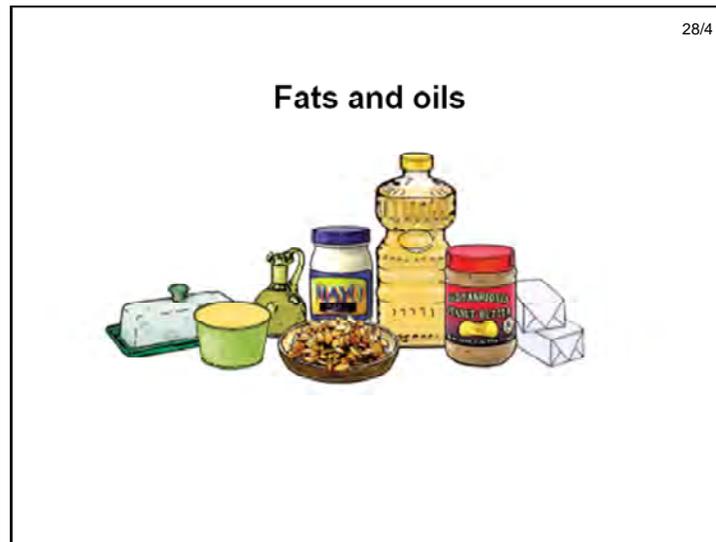
For a soup or stew

- 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, yogurt, 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.

Show **Slide 28/4. Fats and oils**, and make the points that follow:



Present the following information:

- 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 over 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.

Present the following information:

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 is 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 for 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.

Summarise the session

Ask participants if they have any questions or if there are points you can make clearer.

Make these points:

- In this session, we talked about *Key Message 3: Foods that are thick enough to stay in the spoon give more energy to the child.*

Display the flip-chart pages with the Key Message from this session. Keep this message together with previous Key Messages displayed throughout the course.

Feeding recommendations for the first 2 years

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

From the National IYCF 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.

Materials and preparation

- Make sure that **Slides 29/1 through 29/8** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart, markers, tape or other items for affixing papers on walls or chalkboards.
- Write up the three Key Messages from this session:
 - *Key Message 4: Animal-source foods are especially good for children, to help them grow strong and lively.*
 - *Key Message 5: Peas, beans, lentils, nuts, and seeds are good for children.*
 - *Key Message 6: Dark-green leaves and yellow-coloured fruit and vegetables help a child to have healthy eyes and fewer infections.*
- A bowl or plate that would be used when feeding a young child.
- Examples of locally available processed complementary foods (empty packets are suitable).
- Adapt lists of foods to reflect those available locally. Review the section on the use of animal-source foods and adapt it if necessary for the local situation.
- Copies of the handout 'What is in the bowl?' (Located at the end of this session.)

Time: 60 minutes

Session guide

Introduce the session by making the following points:

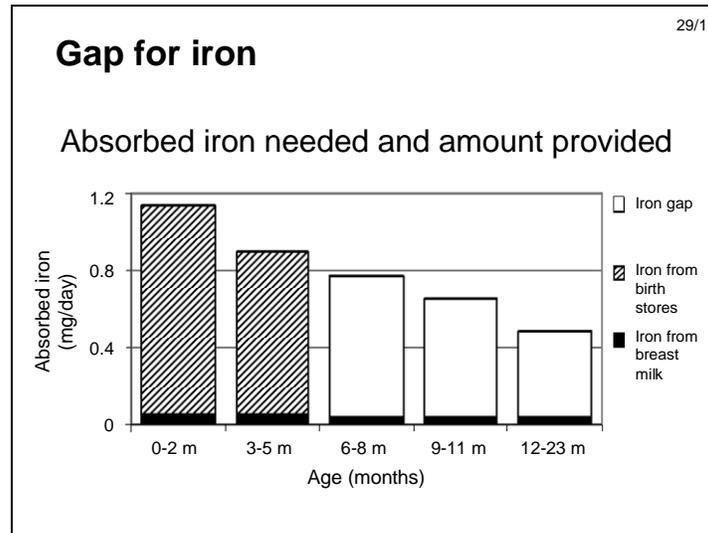
- So now, our child has an energy-rich, thick staple in their bowl to help fill the energy gap (*Hold up the child's bowl*).
- In a similar way, there are also gaps for iron and vitamin A.

Foods that fill the iron gap

Make these points:

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

Show **Slide 29/1**. **Gap for iron**, and make these points:



- 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. *(Point to 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. *(Point to black area.)*
- 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. So, after that time we see a gap between the child's iron needs and what they receive from breastmilk. This gap needs to be filled by complementary foods. *(Point to white area—this is the gap.)*

Ask: What happens if the child does not have enough intake of iron to fill this gap?

Wait for a few replies and then continue.

- 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 they 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.
 - To assist families to use these iron-rich foods to feed their young children.

The importance of animal-source foods

Explain that we will now look at the importance of animal foods in the child's diet. *Note: Read the following section only if meat is eaten in your area.*

- 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.

Ask: Which of these foods are commonly given to children in your area?

List the replies on the flip chart. Then make these points:

- 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.

Ask: What are some ways of making these foods easier for the young child to eat?

Wait for a few replies and then continue. Responses should include:

- 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 sieve before mixing with other foods.

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

Present the following:

- 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 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 talking with families, give this Key Message:

Show **Slide 29/2. Key Message 4: Animal-source foods**, and ask a participant to read out the Key Message:

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 carton of eggs, a wedge of Swiss cheese, a slice of cheddar cheese, a glass of milk, a whole chicken drumstick, a piece of salmon, and a stack of crab legs.

The importance of legumes

Show **Slide 29/3. Key Message 5: Legumes**, and read out the Key Message:

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 lentils, a pile of almonds, a pile of peanuts, and a jar of 'Old Fashioned Peanut Butter'. There are also some green peas and chickpeas.

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.

Ask: What types of legumes are used in our area?

Wait for a few replies and then continue. List the replies on the flip chart.

Ask: What are ways that legumes, nuts, and seeds could be prepared that would be easier for the child to eat and digest?

Wait for a few replies and then continue. Refer to participants' replies as you make these points.

- 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 (for example: rice and beans), or adding a milk product to a cereal or grain (maize meal with milk).

Iron absorption

Make these points:

- 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.

Show **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).

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*



Display the flip-chart page with the Key Messages from this section and read them out. Keep these Messages displayed throughout the course.

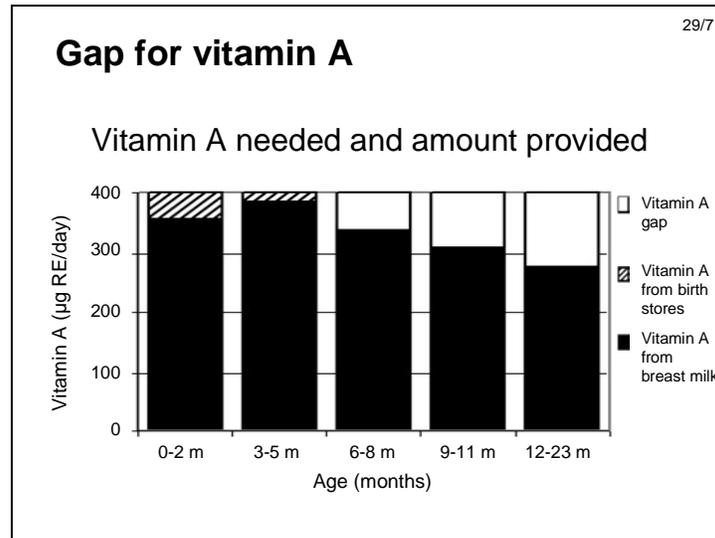
Note: Iron supplements are provided at health facilities.

Foods that can fill the vitamin A gap

Make these points:

- *(Show bowl)* 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.

Show **Slide 29/7. Vitamin A gap**



Make the following points:

- 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. (*Point to the white area—this is the gap to be filled.*)
- Good foods to fill this gap are dark-green leaves and yellow-coloured vegetables and fruits.

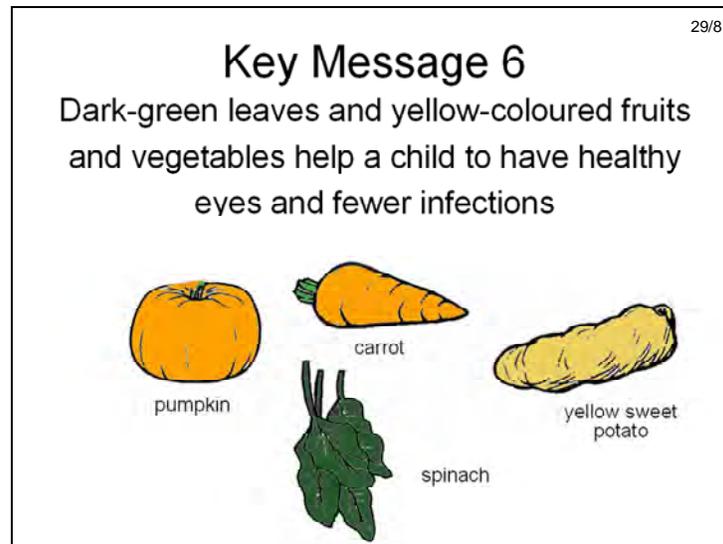
Ask: What fruits and vegetables are good sources of vitamin A?

Wait for responses.

- Participants should mention carrots, green leafy vegetables (spinach, beet-root greens), pumpkin, and apricots.
- 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 six months, with 100,000 international units given before one year of age, and 200,000 international units given thereafter through the age of five 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 six weeks post-partum.

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



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

Display the flip-chart page with the Key Message from this section. Keep this message displayed throughout the course.

Discuss the use of fortified complementary foods

Make these points:

- In some areas, there are fortified complementary foods available. For example, flour or a cereal product with added iron and zinc.

Ask: What products do you see in your area that are fortified?

Wait for a few replies, and then continue.

- 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.

Discuss the fluid needs of the young child

Make these points:

- 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 under 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.

Ask: What types of drinks are given to young children between 6 and 24 months old?

Wait for a few responses and then continue.

Present the following information:

- Water is good for thirst. A variety of pure fruit juices can be used also. 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 2 to 3 cups of water per day in a temperate climate and 4 to 6 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.

Exercise: ‘What is in the bowl?’

Divide the participants into four groups. Assign each group a child’s age—7 months, 10 months, 12 months, and 15 months. Pass out the handout: What is in the bowl?

Explain the exercise:

- Now we will put these recommendations or Key Messages into foods. Each group has a picture of a mother feeding a child from a bowl. In your group, think of the foods available to families in your area that could be used to form one meal that would be appropriate for a young child of your assigned age.
- Although we talk about types of foods such as staples, legumes, foods from animals, dark-green leaves, yellow-coloured fruits and vegetables, and so on, it is easier and more natural for caregivers to think in terms of the meals they usually prepare or foods that taste good together.
- Families may give complementary foods that are:
 - Specially-prepared foods, or
 - The usual family foods that are modified to make them easy to eat and provide enough nutrients.
- For example, a caregiver may specially prepare porridge for the baby while the rest of the family eats rice and bean stew. Or, the caregiver may take some suitable foods out of the family meal and mash these foods to a soft consistency that is easy for the young child to eat.
- In this exercise, try to use foods that would be eaten in an average family meal in your area, not a rich family.
- At this time, focus on an example of foods a family could use. We will discuss the quantity of food to give later.
- You will describe your meal to the other groups and give the Key Messages connected with the foods you have chosen.

Trainers sit with their group, helping as needed. Aim to get foods listed that reflect the Key Messages learnt so far (Key Messages 1 to 6). However, it is not necessary to use all six Key Messages with one meal. If unsuitable foods are listed, gently discuss why these foods might be considered and if others might be used instead. Allow 7 minutes to decide on the meal and why they chose each food. Remind participants that they can find a list of the Key Messages at the back of their manual.

Go back to the whole group. Ask one person from each group to present their meal. Ask the whole group if the ‘bowl’ includes foods that match the Key Messages.

Thank participants at the end for their meal suggestions. Display the exercise sheets so the groups can see them.

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?

Summarise the session

Ask participants if they have any questions or if there are points that you can make clearer.

Make these points:

- In the last two sessions, we talked about the recommendations about foods for young children.
- The most difficult gaps to fill are usually for:
 - Energy
 - Iron and zinc
 - Vitamin A
- In the previous sessions, we saw the Key Messages 1, 2, and 3 (Point to where they are displayed):
 - *Key Message 1: Breastfeeding for 2 years of age or longer helps a child to develop and grow strong and healthy.*
 - *Key Message 2: Starting other foods in addition to breastmilk at 6 months helps a child to grow well.*
 - *Key Message 3: Foods that are thick enough to stay in the spoon give more energy to the child.*
- In this session, there were three new Key Messages to use with families to discuss ways to fill the gaps for iron and vitamin A.
 - *Key Message 4: Animal-source foods are especially good for children, to help them grow strong and lively.*
 - *Key Message 5: Peas, beans, lentils, nuts, and seeds are good for children.*
 - *Key Message 6: Dark-green leaves and yellow-coloured fruit and vegetables help a child to have healthy eyes and fewer infections.*

In some areas there are supplementation programmes for other important micronutrients, for example iodine. If such programmes exist in your area mention them here.

Trainer's notes

Iron

Absorbed iron is referred to in the text. This is the iron that passes into the body after it has been released from food during digestion. Only a small proportion of the iron present in food is absorbed. The rest is excreted in the faeces.

If a baby is born preterm or of low birthweight, these body stores will be less, so these babies will need iron supplements, usually iron drops, from about 2 months of age.

If fresh liquid milk is given to young children it should be boiled or pasteurised.

It is very difficult, if not impossible, for young children to meet the recommended intake of iron and zinc from foods unless meats are eaten regularly (ideally daily, or as frequently as possible). Organ meats are highest in iron. Mineral and vitamin supplements may be needed by children who do not have meat.

In some parts of the world iron pots are used for cooking. Iron absorption is increased by cooking in iron pots, particularly if the food is acidic.

Vitamin A

If a mother is deficient in vitamin A during pregnancy, the baby will have lower stores at birth and there will be less vitamin A in the breastmilk. Supplements may be used for pregnant and newly-delivered mothers in areas where vitamin A deficiency is common.

Fluids

Large quantities of artificial sweeteners such as saccharine or aspartame are not good for young children.

When tea is referred to in the text this includes black tea, green tea, red tea, and herbal or bush teas.

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.

Materials and preparation

- Make sure that **Slides 30/1 through 30/9** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart, markers, tape, or other items for affixing papers on walls or chalkboards.
- Determine the local measures to use in the box AMOUNTS OF FOOD TO OFFER. Show approximate amounts using common local cup, bowl, or other containers.
- Write the Key Messages for this session on a flip-chart page. Keep covered until later in the session:
 - *Key Message 7: A growing child needs 2 to 4 meals a day plus 1 to 2 snacks if hungry: give a variety of foods.*
 - *Key Message 8: A growing child needs increasing amounts of food.*

Suggested time: 40 minutes

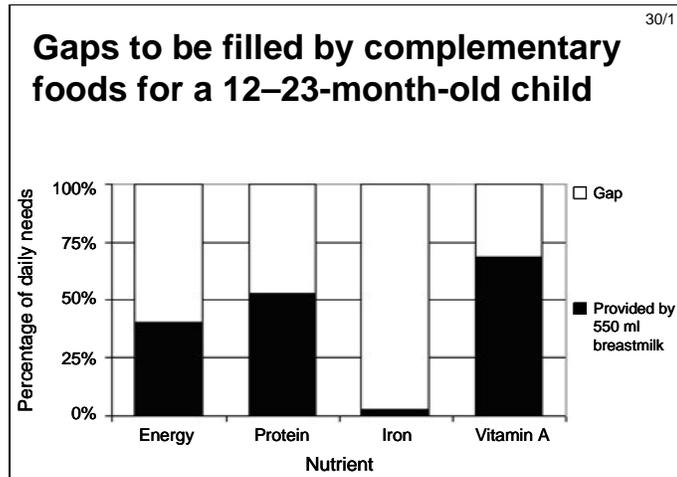
Session guide

The importance of using a variety of foods

Make these points:

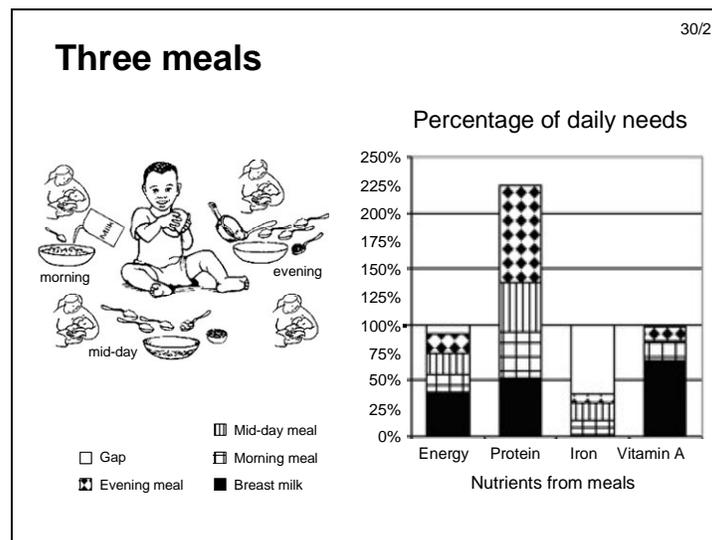
- Most adults and older children eat a mixture or variety of foods at mealtime. In the same way, it is important for young children to eat a mix of good complementary foods. Often the food preparations of the family meals include all or most of the appropriate complementary foods that young children 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 the young children's needs and the amount of energy, vitamin A, and iron supplied by breastmilk. If we put the day's needs onto one graph it looks like this:

Show **Slide 30/1**. **Gaps to be filled by complementary foods for a 12–23-month-old child**, and make the points that follow:



- In Session 2 of this course 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 to 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. Show Slide **30/2**. **Percentage of daily needs**. Make the points that follow and show how each meal builds on the graph:



- 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 breastfeeding² as well as eating complementary foods. The breastmilk gives energy, protein, some iron, and vitamin A. (*Show where breastmilk is on the graph—dark area at bottom.*)
- 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. (*Show where this meal is on graph.*)

Midday: 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. (*Show where this meal is on graph.*)

Evening: A full bowl of food—three big spoons of rice, one spoon of fish, one spoon of green leaves. (*Show where this meal is on graph.*)

- 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.

Ask: What do you see from the graph? Are these foods filling the gaps?

Wait for a few replies and then continue.

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

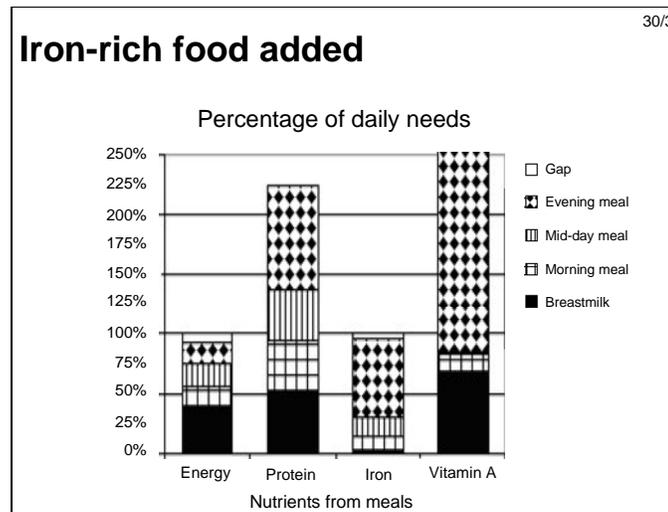
Ask: How could this child get more iron?

Wait for a few replies and then continue.

- 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.
- 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.

² Approximately 550 ml of breastmilk per day

Show **Slide 30/3. Iron-rich food added** and make the points that follow:



- If foods fortified with iron are available, these should be used to help fill the iron gap.³
- 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.

Discuss the frequency of feeding complementary foods

Make these points:

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

Ask: What can you suggest to Nthako's family to help fill the energy gap?

Wait for a few replies and then continue.

- 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,⁴ 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.

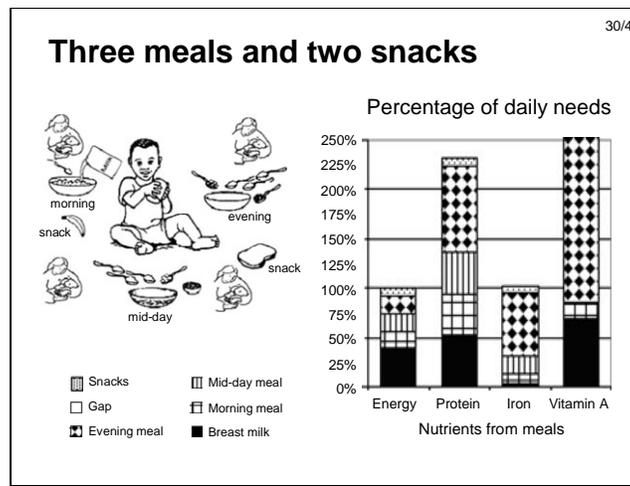
Ask: What kind of healthy snacks would be easy to feed this child? Wait for a few replies and then continue.

³ Remind participants of iron-fortified foods if discussed in the previous session.

⁴ Give examples of local processed foods that might be called snack foods.

- 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 potatoes⁵ 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.

Show **Slide 30/4. Percentage of needs with three meals and two snacks**, and make the points that follow:



- 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 this key message:

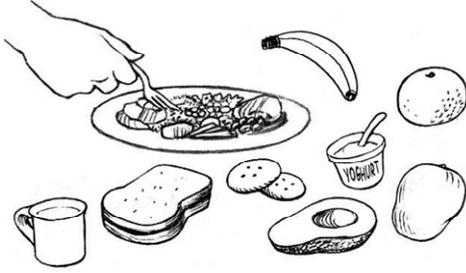
⁵ Cooked moist foods (such as potatoes) should not be kept more than 1 hour if there is no refrigeration.

Show **Slide 30/5. Key Message 7: Frequency of feeding**, and read out the Key Message:

30/5

Key Message 7

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

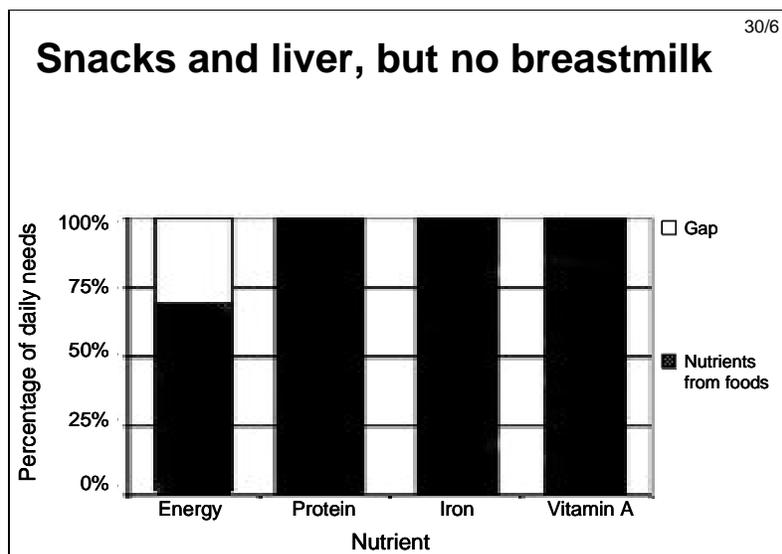


- When you are talking with a family about feeding their young child more frequently, suggest some options for them to consider. It can be difficult to feed a child frequently if the caregiver has many other duties and if additional foods are expensive or hard to obtain.
- Other family members can often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

Show **Slide 30/6 - Snacks and liver, but no breastmilk**, and make the points that follow:



- 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 to 240 ml (two half-cups) of milk (full-fat cow's milk or milk from another animal or formula milk⁶) 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 over 6 months of age 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.

Ask: What other recommendations have we discussed in previous sessions for children over 6 months of age who are not receiving breastmilk?

Wait for a few replies and then continue by displaying the next slide.

Show **Slide 30/7. Recommendations for feeding the non-breastfed child from 6 to 24 months**, and make the points that follow:

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.

⁶ Infant formula if affordable, acceptable and available

Outline the quantity of complementary food to be offered

Make these points:

- When a child starts to eat complementary foods, he needs time to get accustomed to the new taste and texture 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.

Ask: What amounts of food do the families in the area give to their young children?

Wait for a few replies and then continue.

Show **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.

Ask a participant to read out the first age group. Then ask another participant to read out the next age group until all the age groups are read out.

AMOUNTS OF FOODS TO OFFER			
Age	Texture	Frequency	Amount of food an average child will usually eat at each meal⁷
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 ½ 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	½ 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	³ / ₄ 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.			

Continue with these points:

- 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.⁸
- When you are talking with families, give this key message:

⁷ Adapt the 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.

⁸ Active encouragement of feeding is discussed in Session 34.

Show **Slide 30/9. Key Message 8: Amount of food**, and read out the key message.

30/9

Key Message 8

A growing child needs increasing amounts
of food

An illustration of a woman with dark hair tied back, wearing a blue tank top and a grey cardigan, sitting at a table and feeding a baby. The baby is wearing a white hoodie and pink pants. A green bowl is on the table in front of the woman. The background is plain white.

Make the following points:

- As you talk with caregivers, a frequent question you are asked may be how much and how often to give food. To practise these amounts, we will now do a drill. A drill is not a test. It is a way to help you learn to recall the amounts with speed and confidence.
- I will say an age of a child. The first person I call on will say how often to feed and how much food to give at the main meal.
- If the person cannot answer or answers incorrectly, we go to the next person. When the correct answer is given, I say a different age of child and we continue.
- Before we start take 2 minutes to look again at the box in your *Participant's Manual*.

Keep the pace lively and the mood cheerful. Congratulate participants as they improve in their ability to answer correctly or more quickly. If the group is very large, this drill can be conducted in the smaller groups with the trainer for each group asking the questions.

EXERCISE 30. AMOUNTS TO OFFER		
Age of child	Frequency	Amount
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	¾ 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	¾ of a cup
21 months	3 meals plus 2 snacks	Full cup
3 months	A trick question!	Only breastfeeding

The drill ends when all the participants have had an opportunity to answer and when you feel they are answering with confidence. You can repeat the ages if needed to give everyone enough opportunities to practice. Thank participants for their participation.

Summarise the session

Ask participants if they have any questions or if there are points that you can clarify.

Point to the flip -chart page and read out the two Key Messages:

- *Key Message 7: A growing child needs two to four meals plus one to two snacks if hungry: give a variety of foods.*
- *Key Message 8: A growing child needs increasing amounts of food.*

Trainer's notes

The amounts of food included in the table are recommended when the energy density of the meals is about 0.8 to 1.0 Kcal/g.

If the energy density of the meals is about 0.6 Kcal/g, recommend the mother to increase energy density of the meal (adding special foods) or increase the amount of food per meal. For example:

- For 6 to 8 months; increase gradually to 2/3 of cup.
- For 9 to 11 months give ¾ of cup.
- For 12 to 23 months give a full cup.

Find out what the energy content of complementary foods is in your setting and adapt the table according to this information.

Counsel the mother/caregiver to feed the child using the principles of responsive feeding, recognising the signs of hunger and satiety. These signs should guide the amount of food given at each meal and the need for snacks.

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 to 24 months.

Materials and preparation

- Counselling observation checklists for each group.
- Make sure that the participants have their copies of the counselling cards.
- Cut out slips of paper with the scenarios listed at the end of the session.

Time: 40 minutes

Session guide

Remind participants of the earlier sessions where we practiced counselling skills and giving support, specifically how to:

- Accept what a mother thinks.
- Accept what a mother feels.
- Praise what a mother and baby are doing right.
- Give a little, relevant information.
- Use simple language.
- Make one or two suggestions, not commands.

Demonstrate how to use Counselling Cards 13 to 15 on complementary feeding. Be sure to demonstrate the counselling and support skills mentioned above. After the demonstration, ask participants if they have any questions.



Divide participants into groups of three to role play using Counselling Cards 13 to 15, ask one to be the health worker, one to be the mother, and one to observe. Pass out copies of the Counselling Observation Checklist for the observer to use. Pass out copies of the scenarios to the participants playing the mother. Ask each group to do a role play similar to the one demonstrated using the counselling cards based on their scenario. Hand out the slips of paper containing the 11 different scenarios.

Circulate among the participants and give them the assistance they need. (All facilitators.) After 15 to 20 minutes, ask the group to come back to plenary. Facilitate a brief discussion about their role plays:

- Was there a particular step that was challenging? If yes, why? Does anyone have suggestions for overcoming these challenges?
- What techniques for listening and learning were demonstrated during the exercise?
- What could 'health workers' do differently to improve this counselling session?

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.

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.

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

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.

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

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

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

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.

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.

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

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

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.

Materials and preparation

- Have **Slide 32/1**. Review the text associated with the slide and be ready to present on it.
- Flip chart and marker.
- A typical bowl that a young child would use (one set for each group).
- Copies of the Food Intake Job Aid, 6–24 Months for the practice for each participant.
- Copies of the Instructions to Complete Food Intake Job Aid, 6–24 Months for each participant.
- One set of stories for each group for Food Intake Practice. Cut as shown. Keep the growth chart with the relevant story.
- Ask two participants or a trainer and a participant, to assist with the demonstration. Show them the text and forms. Ask them to read through them and to practise. The consistency pictures, a Food Intake Job Aid, 6–24 months, and a bowl will be needed, plus the growth chart.
- A flip chart with a blank Food Intake Reference Tool table (without the answers) and one with the answers. These tables are present in this session guide.

Suggested Time: 75 minutes

Session guide

Make these points:

- 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.

Demonstrate gathering information on feeding practices

Explain that 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 assess a breastfeed.

Pass out copies of the Food Intake Job Aid, 6–24 Months. Read through the job aid with the participants.

Enter ✓ in the Yes column if the practice is in place.

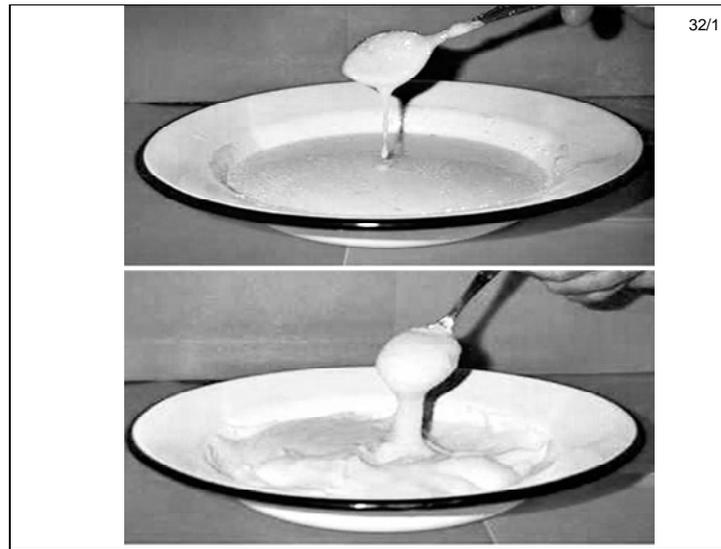
Enter your initials if a message is given (see Food Intake Reference Tool, 6-24 Months, for the message).

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 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?		

Make these points:

- 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 all 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.

Show **Slide 32/1**, showing two pictures of porridge. Ask participants to refer to these pictures, which demonstrate different consistencies. Point out how the pictures are different.



- If 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 a thick and a 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 a Key Message about.

Ask: Why is it important to choose just two to three Key Messages to give the mother?

Wait for a few replies and then continue.

- 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.

Ask participants to look at the Food Intake Reference Tool, 6–24 Months. Ask volunteers to suggest the ideal feeding practice and key message for each question. Write their responses in the blank table on the flip chart. After each question ask the entire group if they agree and allow a 2 to 3 minute discussion for each question until the chart has been completed. Refer to the completed table and correct any information as needed.

This is the blank copy of the Food Intake Reference Tool, 6–24 Months. The participants should fill in the sections on the ‘Ideal feeding practice’ and the ‘Key Messages to help counsel mothers.’ When the flip-chart version is completed, compare their answers with the filled-in chart (on the next page).

FOOD INTAKE REFERENCE TOOL, 6–24 MONTHS		
Feeding practice	Ideal feeding practice	Key Messages to help counsel mothers
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 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?		

FOOD INTAKE REFERENCE TOOL, 6–24 MONTHS

Feeding practice	Ideal feeding practice	Examples of practical suggestions to give
Growth curve rising?		<i>Look at the shape of the growth curve of the child: is the child growing?</i>
Child received breastmilk on demand?	Yes	Even though you're giving your child other foods now, breast milk is still very important for his growth and development and for protecting him from illness. It is good to keep breastfeeding your baby as often as he wants and to give other foods in between breastfeeds.
How many meals of a thick consistency did the child eat yesterday? (Use consistency photos as needed.)	3 meals	Foods that are thick enough to stay in the spoon give more energy to the child.
Child ate a dairy product yesterday?	Try to give dairy products daily	Dairy products foods are especially good for children to help them grow strong and lively.
Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)?	Animal-source foods should be eaten daily	Animal-source foods should be given every day. Every time your family eats fish or meat, can you mash some up and give it to your baby?
Child ate pulses, nuts, or seeds yesterday?	If meat is not eaten pulses or nuts should be eaten daily, with an iron enhancer such as a vitamin C-rich food	When you cannot feed animal-source foods it's especially important to give peas, beans, lentils, nuts, and/or seeds every day. Can I show you how to prepare legumes for your baby?
Child ate a dark-green or yellow vegetable or yellow fruit yesterday?	A dark-green or yellow vegetable or yellow fruit should be eaten daily	Dark-green leaves and yellow-coloured fruits and vegetables help the child to have healthy eyes and fewer infections. It is important for your child to eat these every day.
Child ate sufficient number of meals and snacks yesterday, for his/her age?	Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry Child 9–23 months: 3–4 meals plus 1–2 snacks if hungry	Since your child is 7-months old, give 2-3 meals plus 1-2 snacks every day. Can you try to give snacks, such as a piece of fruit or bread, each day?
Quantity of food eaten at main meal yesterday appropriate for child's age?	Child 6–8 months: gradually increase to approx. ½ cup at each meal Child 9–11 months: approx. ½ cup at each meal Child 12–23 months: approx. ¾ – 1 cup at each meal	A growing baby needs more and more food as he gets bigger. Since your baby is 9 months old now, he needs at least ½ cup of food at each meal.
Mother assisted the child at mealtimes?	Yes, assists with learning to eat	A young child needs to learn to eat: encourage and give help... with lots of patience.
Child took any vitamin or mineral supplements?	Vitamin and mineral supplements may be needed if child's needs are not met by food intake	<i>Explain how to use vitamin and mineral supplements if they are needed</i>
Child ill or recovering from an illness?	Continue to eat and drink during illness and recovery	Encourage the child to drink and eat during illness and give extra food after illness to help them recover quickly.

Remind participants that the suggestions in the right-hand column are just examples and that the specific message will depend on the mother's/baby's specific problem and her baby's age.

Pass out copies of the Instructions to Complete Food Intake Job Aid, 6–24 Months to each participant.

Explain that now we will see this Food Intake Job Aid, 6–24 Months in use. During the demonstration, you can follow the completed Food Intake Job Aid, 6–24 Months, in your manual. Later, you will use this job aid with mothers in the practical session. In this demonstration, listen for open questions and other listening and learning skills that we discussed in Session 5.

INSTRUCTIONS TO COMPLETE 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 pictures 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 to 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 the 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

Ask the two participants whom you prepared to come forward and demonstrate. One person is the mother and one is the health worker who fills in the Food Intake Job Aid, 6–24 Months.

How to set up the room: Have seats with no desk or barrier between the health worker and mother. If the health worker needs a desk to write on, place it to one side (right-hand side if

the health worker writes with the right hand). They are already sitting. Health worker has a Food Intake Job Aid, 6–24 Months; Food Intake Reference Tool, 6–24 Months; consistency pictures; and a typical bowl. Mother has a growth chart for the child.

Find out the mother and child's 'names,' then introduce the demonstration:

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 only rising slowly though he is generally healthy. So the health worker asks Me Puleng to talk to her about how Thabo is eating.

DEMONSTRATION: LEARNING WHAT A CHILD EATS

<i>Health worker:</i> (show growth chart)	'Thank you for coming today. Me Puleng, your child's weight line is going upwards which shows that he has grown since I last saw him. Because Thabo lost some weight when he was ill, the line needs to rise some more. Could we talk about what Thabo ate yesterday?'
<i>Mother:</i>	'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.'
<i>Health worker:</i>	'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> (shows two consistency pictures)	'Which of these drawings is most like the porridge you gave to Thabo?'
<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: (shows two consistency pictures)</i>	'Which picture is most like this food that you fed Thabo yesterday in the middle of the day?'
<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: (shows two consistency pictures)</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?'
<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 had no more foods.'
<i>Health worker: (shows typical bowl)</i>	'Using this bowl, can you show me about how much food Thabo ate at his main meal yesterday?'
<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.'

Reviewing the interview

When they finish, explain:

- As you can see from the example form in your manual, the health worker has gathered information on the foods the child ate in the previous day and filled in the first column.
- Let us go through the questions. First we will talk about the general feeding practices. The variety of foods eaten is looked at next. Then we check the frequency of meals and the amount of food.

Ask: Is the growth curve heading upwards?

Wait for a few replies and then continue.

- Yes, however, it is only going upwards 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 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 this 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 to 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 to give relevant information on? What Key Message could you give to this mother?

Wait for a few replies and then continue.

- After you had praised the practices, you would then discuss:
 - The amount of food in each meal—suggest increasing so that by 12 months the child has a full bowl.
 - To make 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 only 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 practices which could be improved with the mother, giving the relevant Key Messages.
- The health worker puts her initials at 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.

Practice

Divide participants into small groups of three to four and have one trainer sit with each group. Explain what they will do:

- You will now use role play to practise gathering information to assess complementary feeding practices.
- You will take turns to be a 'mother' or a 'health worker.' When you are the 'mother,' play the part of the story on your card. The 'health worker' gathers information about your child's feeding. The other participants in the group observe.

Give each participant one of the Stories for Food Intake Practise 1–6. Each group of participants should have a set of four stories plus growth charts, so that each participant can have a different one to practise. There are extra stories if the group is larger than four or if there is extra time available.

Give each participant a blank Food Intake Job Aid, 6–24 Months. Make sure each group has a set of the consistency pictures and a child's bowl. Ask participants to read through their own story to themselves. Allow 2 minutes, and then continue with the explanation:

- When you are the 'mother':
 - You are the only one in your group with that story. Do not let the others see it. Look only at your own story.
 - Give yourself and your child names and tell them to your 'health worker.'
 - Answer the health worker's questions from your story. Do not give all the information at once.
 - If the information to answer a question is not in your story, make up information to fit with the history.
 - If your health worker uses good listening and learning skills, and makes you feel that she is interested, you can tell her more.
- When you are the 'health worker':
 - Greet the 'mother' and introduce yourself. Ask for her name and her baby's name, and use them.
 - Ask one or two open questions to start the conversation and to find out in general how the child is.
 - Explain that you would like to learn about how her child is eating. Ask the mother to tell you about the child's eating on the previous day. Prompt as needed. Fill out the Food Intake Job Aid, 6–24 Months as you listen.
 - Try to praise the things the mother is doing right. At the end of the counselling session, try to think of suggestions you would make and Key Messages to give to the mother.
- When you are the 'observer':
 - Follow the pair practise with the Food Intake Job Aid, 6–24 Months and observe if the 'health worker' gathers useful information.
 - Notice which counselling skills the health worker uses and which she does not use.
 - After the role play, be prepared to praise what the health worker does right, and suggest what she could do better.

Trainers each sit with one group of three to four participants. Make sure that the participants understand the exercise and do it as intended—and that the 'mother' does not give all the information at once.

Follow the story in your *Trainer's Guide*. If the pair is doing well, let them go on until they finish. If they make many mistakes, or get confused, stop them, and give them a chance to correct themselves. Ask them how they feel they are doing, and what they think they could do differently.

When they have completed the stories, discuss the role play briefly in each small group.

- Ask the mother how she felt, did she say all she wanted to, or did she feel restricted?
- Ask the other participants in the group to say what they observed.
- Then say what you think. Praise what the pair did right and then comment on how well the 'health worker' gathered information.
- In particular go with the group through the points to praise the 'mother.' Make sure that the relevant Key Messages were focussed on.
 - If necessary, let the pair try again, at least for a short time. Try to finish the exercise with participants doing some things well. Thank the pair and congratulate them for their efforts.
 - Ask another pair to practise. Make sure each member of the group has a chance to be a 'health worker' at least once.

In the large group, summarise the session and ask participants if they have any questions or if there are points you can make clearer.

Stories for Food Intake Practice

Story 1:

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

Early morning: Breastfeed, half bowlful 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 spoon 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.

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 full 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.

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), $\frac{1}{2}$ 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.

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 $\frac{1}{2}$ a bowl), breastfeed.

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

During the night: Breastfeed.

Story 5:

Child is six and a half 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.

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 $\frac{1}{2}$ 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 ($\frac{1}{2}$ a bowl). Drink of water.

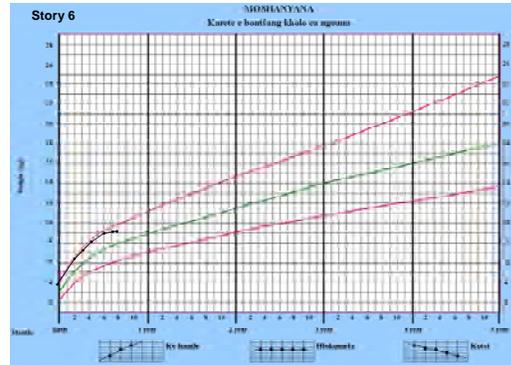
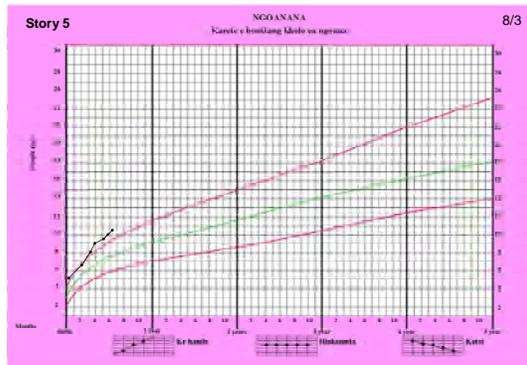
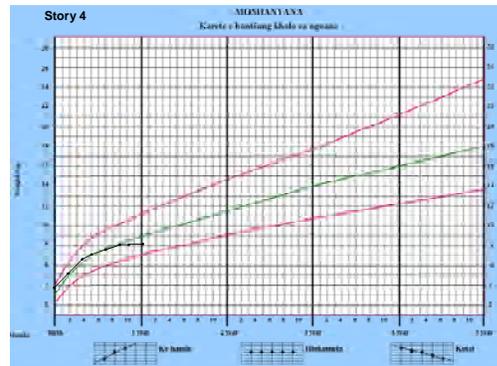
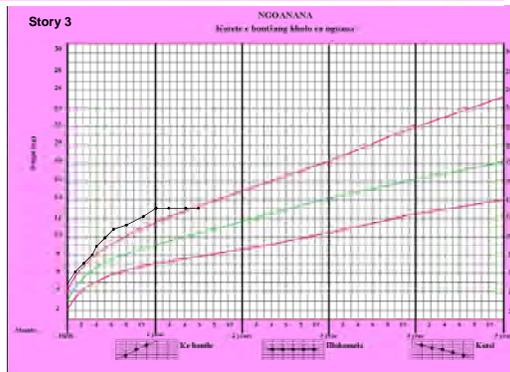
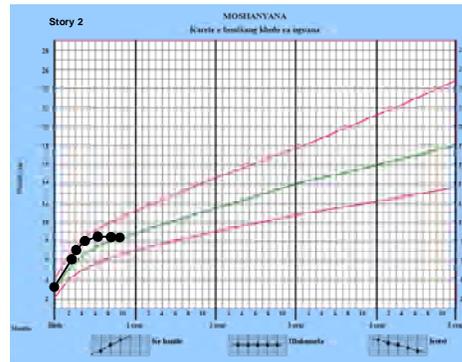
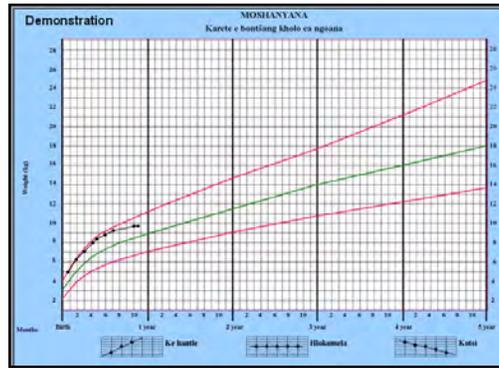
Mid-afternoon: One sweet biscuit, breastfeed.

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

Bedtime: Breastfeed.

During the night: Breastfeed.

WEIGHT CHARTS FOR SESSION



Trainer's notes

Notes on stories for trainers to refer to during feedback

Story 1: *Female child age 15 months. Growing well along z-score 2.*

- Mother is still breastfeeding frequently.
- Received three meals of a thick consistency .
- Ate fish (animal-source food).
- Had milk on porridge.
- Ate beans at mid-day.
- Ate greens with evening meal and mango at mid-day.
- Had three meals and two snacks.
- Amount of food for a 15-month-old child is $\frac{3}{4}$ to one cup (250 ml) per meal. This child had a half-cup in the morning. However, quantities at other meals were appropriate.
- Mid-morning snack was bread with nothing on it.
- Suggest discussing quantities of food per meal for a child aged 15 months old.
- Suggest healthy snacks to offer—e.g., putting margarine or peanut butter on the bread or biscuit.

Story 2: *Male child age 9 months. Birth weight between 0 and 2 z-score. Grew well until 4th month, but the child's growth has been poor since then.*

- Mother is not breastfeeding.
- Received one meal of a thick consistency (evening meal) but the other two meals were thin.
- Ate meat (animal-source food).
- Had cow's milk – one and a half cups = 375 ml (this child is not breastfeeding so he should receive one to two cups of milk per day).
- Ate beans at mid-day.
- Although ate vegetables it is not clear from story whether these were green or yellow.
- Had three meals and three snacks.
- Received half a bowl of food for meals (at 9 months should be receiving $\frac{1}{2}$ a bowl).
- Suggest making morning porridge and mid-day soup of a thicker consistency.
- As child is not breastfeeding he should have three to four meals + one snack + an extra one to two meals per day. Suggest that one of the snacks (e.g., mid-afternoon) is larger in quantity so this would count as an extra meal.
- Suggest enriching porridge with peanut butter, oil, or margarine. Suggest giving an extra half-cup of milk per day. Suggest putting some margarine or peanut butter on the bread at bedtime.

Story 3: *Female child age 18 months. Growth good to 10 months but growth curve beginning to flatten. Mother is still breastfeeding.*

- Received two meals of a thick consistency (early morning and mid-day meals).
- No animal-source foods.
- Ate beans at mid-day.
- Although ate vegetables with mid-day meal it is not clear from story whether these were green or yellow.
- Had three meals and one snack (mid-afternoon)—the mid-morning snack was a drink of diluted fruit juice.
- Received full bowl of food for early morning and mid-day meals, but the evening meal was less than one bowl—at 18 months should be receiving $\frac{3}{4}$ to one full bowl.
- Suggest a larger quantity of food at the evening meal. E.g., staple, animal-source food, and green/yellow vegetables.

- Suggest a healthy snack mid-morning.
- Suggest breastfeeds and water for drinks, or undiluted fruit juice rather than diluted fruit drinks.
- Suggest giving some animal-source foods each day if possible.
- Suggest increasing the energy of the morning porridge with oil, peanut butter, or margarine.

Story 4: *Male child age 12 months. Poor growth since 5 months of age. Mother is still breastfeeding.*

- Evening meal of thick consistency, but early morning porridge and mid-day meal of a thin consistency.
- Meat given at the mid-day and evening meals.
- Ate mango.
- Had three meals and three snacks, which is appropriate frequency of feeds for a 12-month-old child who is breastfeeding.
- Received half a bowl of porridge in the early morning and the evening meal was not a full bowl. At 12 months the child should be receiving $\frac{3}{4}$ to one full bowl.
- Suggest making the food thicker.
- Suggest giving a larger quantity of food at meals – $\frac{3}{4}$ to one full bowl.
- Suggest increasing the energy of the morning porridge with oil, peanut butter, or margarine.

Story 5: *Female child age 6 $\frac{1}{2}$ months. Child has just started complementary feeds. Growing well.*

- Appropriate number of meals and amount per day—two meals; two to three tablespoons.
- Suggest making porridge thicker.

Story 6: *Male child age 8 months. Child had good growth until 6 months but now growth curve flattening. Mother is still breastfeeding frequently.*

- Mid-day meal of thick consistency, but early morning porridge of a thin consistency.
- Small piece of egg given at the mid-day meal.
- Ate mashed greens at mid-day.
- Had two meals and two snacks (the evening ‘meal’ was more like a snack)—a child of 8 months who is breastfeeding should receive two to three meals a day.
- At 8 months the child should be receiving $\frac{1}{2}$ a bowl of food three times a day. The quantity of food offered to this child was less than $\frac{1}{2}$ bowl in the morning and evening.
- Suggest making the porridge thicker.
- Suggest giving a larger quantity of food three times a day— $\frac{1}{2}$ a bowl.
- Suggest increasing the energy of the morning porridge with oil, peanut butter, or margarine.
- If possible suggest increasing the amount of animal-source foods given daily.

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.

Materials and preparation

- Make sure that you have **Slides 33/1 and 33/2**. Study the text that goes along with them and be prepared to present it.
- Have ready the feeding recommendations which participants wrote down during Session 27.
- Ask two participants to assist with the Demonstrations 1, 2, and 3.
- For demonstrations you will need a spoon; a feeding bowl with some mashed food in it; a biscuit or piece of bread or other finger food; a cloth to use as a bib; and a basin, water, soap, and towel for hand-washing. You will also need a mat or chairs to sit on while feeding the child; whatever is common in your area.
- Flip chart and markers.
- A flip chart with the list of Responsive Feeding Practices. Keep it covered until needed.
 - Assist children to eat, being sensitive to their cues or signals.
 - Feed slowly and patiently, encourage but do not force.
 - Talk to children during feeding with eye-to-eye contact.
- Write the Key Message from this session on a page of flip-chart paper. Keep it covered until later in the session:
 - *Key Message 9: A young child needs to learn to eat: encourage and give help...with lots of patience.*

Suggested time: 40 minutes

Session guide

Explain:

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

Make two columns on the flip chart. Write 'WHAT TO FEED' at the top of one column and 'HOW TO FEED' at the top of the other. Read out the recommendations on complementary feeding which participants wrote on paper in Session 27, one by one. Remember these were the most frequent recommendations or information that participants give to caregivers about feeding young children. After you read out each recommendation put a tick mark in the column that relates to the recommendation. For example, the recommendations 'Give fruits' or 'Give animal-source foods' or 'Give more food' go in the WHAT column; the recommendations 'Pay attention to the child while feeding' or 'Wash your hands before feeding the child' go in the HOW column.

Ask: What do you see? Which type of information do you give most often? Which column has the most tick marks in it?

Wait for a few responses, and then continue.

- It is probably the WHAT column.

- Often health workers talk about what foods to give 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 also 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.

Make these points:

- A child needs food, health, and care to grow and develop. Even when food and health care are limited, good care-giving 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

Uncover the first Responsive Feeding Practice on the flip-chart list, and make these points:

- 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 lots 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 they do not have the skill of moving it to the back of their 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.

Ask: At what age do caregivers in your community expect young children to be able to eat by themselves?

Wait for a few replies and then continue.

- 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 under 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 to 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 is that the **children are left to feed themselves**. The caregiver believes that the child will eat if hungry. The caregiver may also believe when the child stops eating that 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 difference 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.

Ask the two participants whom you prepared to give Demonstrations 1, 2, and 3. One participant plays the part of a child aged about 18 months and another participant is the 'caregiver.' Have the items for the demonstration ready.

Demonstration 1: Controlled Feeding

The 'young child' is sitting next to the caregiver (or on the caregiver's knees). The caretaker prevents the child from putting his/her 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.

Ask: What style of feeding did we see here?

Wait for a few replies and then continue.

- This is an example of controlled feeding. Children may not learn to regulate their intake, which may lead to obesity and food refusal later.

Ask: How do you think this child feels about eating?

Wait for a few replies and also ask the 'child' how he felt.

- The 'child' may feel eating is very frightening and uncomfortable. He may feel scared.

Now we see another way of feeding a young child.

Demonstration 2: Leave to Themselves

The 'young child' 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 the bowl, looks to caregiver for help, eats a little, cannot manage a spoon well, he tries with his hands but drops the food, he gives up and moves away. Caregiver says, 'Oh, you aren't hungry' and takes the bowl away.

Ask: What style of feeding did we see here?

Wait for a few replies and then continue.

- This is an example of feeding by leaving children to do it themselves. If the child has a poor appetite or is too young to manage the skills of eating, this can result in malnutrition.

Ask: How do you think this child feels about eating?

Wait for a few replies and also ask the 'child' how he felt.

- The 'child' may feel eating is very difficult. He may be hungry or sad.

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/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.

Ask: How did the child feel this time about feeding?

Wait for a few replies. Ask the 'child' too.

- The child may feel happy about eating. He may like the contact and the praise and enjoy feeding himself.

Ask: What style of feeding did we see in the last demonstration?

Wait for a few replies and then continue.

- In this last demonstration, the caregiver was feeding the child in response to the child's cues.
- The child's cue or signal that he is hungry may include restlessness, reaching for food, or crying.
- Cues or signals that he does not want to eat more may include turning away, spitting out food, or crying.
- Caregivers need to be aware of their child's cues, interpret them accurately, and respond to them promptly, appropriately, and consistently.

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

Uncover the second Responsive Feeding Practice on the flip-chart list.

Ask: What good practices did we see in the last demonstration that we could encourage?

Write participants' responses on the flip chart and then continue.

- 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.

Ask participants to take it in turns to read out the points.

RESPONSIVE FEEDING TECHNIQUES

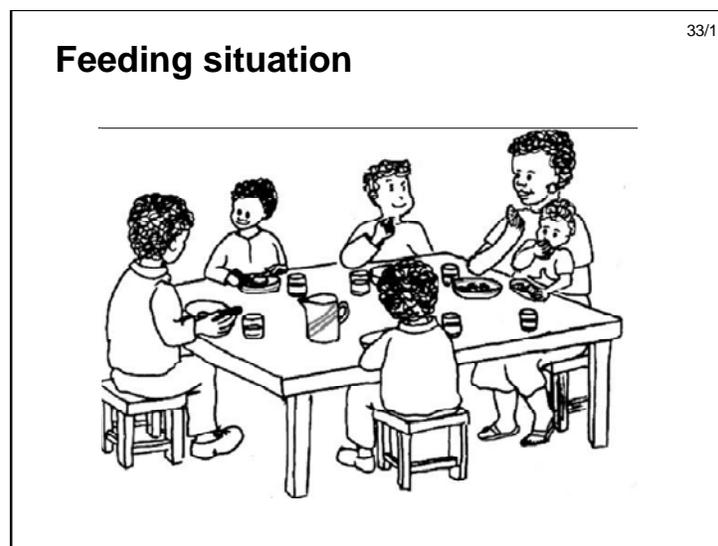
- Respond positively to the child with smiles, eye contact, and encouraging words.
- Feed the child slowly and patiently with good humour.
- Try different food combinations, tastes, and textures to encourage eating.
- Wait when the child stops eating and then offer again.
- Give finger foods that the 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 with eye-to-eye contact.

Uncover the third Responsive Feeding Practice on the flip-chart list, and make these points:

- Feeding times are periods of learning and love. Children may eat better if 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.

Show **Slide 33/1. Feeding situation**, and ask the question:



Ask: What can we see in this feeding situation that could encourage the young child to eat? Write participants' responses on the flip chart and then continue. Refer to the responses as you make these points:

- 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 (point to list):
 - Assist children to eat, being sensitive to their cues or signals.
 - Feed slowly and patiently, encourage but do not force.
 - Talk to children during feeding with eye-to-eye contact.

Show **Slide 33/2. Key Message 9: Responsive feeding**, and read out the message.

33/2

Key Message 9

A young child needs to learn to eat:
encourage and give help
... with lots of patience



Summarise the session

Ask participants if they have any questions or if there are points that you can make clearer.

Make these points:

- In this session, we discussed the importance of feeding and care practices to assist in feeding a young child.
- We learnt another Key Message in this session.

Point out the Key Message on the flip chart.

Explain that a summary of this session can be found in the *Participant's Manual*.

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 6–24-month-old child.

Materials and preparation

- Ensure you know exactly where the practice will be held and what times you are expected there.
- Make sure that two copies of the Food Intake Job Aid, 6–24 Months and two copies of the Counselling Skills Checklist are available for each participant.
- Make sure that each trainer has a copy of the Practical Discussion Checklist to help conduct discussions.
- Make sure that one set of the food consistency pictures is available for each participant.
- Each group needs a typical bowl that a young child would use.

Suggested time: 125 minutes

Session guide

Preparation

Explain what the participants should take with them:

- 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 picture of the thick and thin consistency.
 - Common bowl used to feed a young child—between each pair of participants.

Distribute two blank copies to each person of the Counselling Skills Checklist, the Food Intake Job Aid, 6–24 Months, and consistency pictures.

Explain how the participants will work:

- You will work in groups of three to four, and each group will have one trainer.
- One participant talks with the mother, filling in the Food Intake Job Aid, 6-24 Months at the same time.
- Talk with mothers of children 6–24 months.
- The others in the group observe and fill in the counselling checklist.
- Do not offer suggestions for treatment of an ill child.

When talking to 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 on 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 that 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.

Encourage participants to notice feeding practices such as:

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

Use the Practical Discussion Checklist to guide you as you give feedback to the participants.

Discuss arrangements for travel (if needed) and any other details of the Practical Session and whether the discussions will be done at the site or back at the classroom.

Conduct the practice

These notes are for the trainers. Trainers should read these notes to ensure that they know what to do. There is no need to read these notes to the participants.

- Take your group to the working area and introduce your group to the person in charge. Listen to any directions that this contact person gives. This may include suitable areas to use as well as children and mothers not to talk with.
- Remind the participants to try and find mothers of children over 6 months of age.

- If you cannot find any more children over 6 months of age, you can take a feeding history from mothers with children under 6 months of age using the Feeding History Job Aid, 0–6 Months from Session 13.
- About 10 minutes before the end of the time, remind the groups to start finishing up.

Discuss the findings as a whole group (one trainer)

Return to the whole class group. Discuss what the participants learnt from listening to the mothers and from the completed Food Intake Job Aid, 6–24 Months.

Ask: What did you observe in general looking around the health centre?

Wait for a few replies. Prompt if needed—posters, leaflets, food for sale, children with food/bottles/soothers?

Look at the Food Intake Job Aids, 6–24 Months which you filled in.

- What practices are mothers doing that you could praise and encourage?
- What areas need improvement?
- Give some examples of suggestions you made to mothers about complementary feeding practices.
- Would these suggestions be easy to carry out?

Ask participants if they have any questions or if there are points you can make clearer.

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.

Materials and preparation

- Prepare two flip charts: one with the Listening and Learning Skills and one with the Confidence and Support Skills. Have a blank flip chart ready to list the two new skills we will be discussing in this session.
- Study the instructions for Demonstration 1, so that you are clear about the ideas they illustrate, and you know what to do. Ask participants to be prepared to read the parts of the mother and the health workers in the demonstration.

Suggested time: 30 minutes

Session guide

Make these introductory points:

- In this session you will learn two further skills to help support mothers:
 - Checking understanding.
 - Arranging follow-up.

Demonstrate the skills: Checking understanding

Put up on the wall two lists: one of the Listening and Learning Skills and another of the Building Confidence and Giving Support Skills. Then put up a blank flip chart and on this write 'Checking Understanding.'

Make these points:

- 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.

Ask the two participants whom you have prepared to give Demonstration 1. The trainer briefly discusses what the participants have observed after each section.

DEMONSTRATION 1: CHECKING UNDERSTANDING	
<i>Health worker:</i>	'Now, (name), have you understood everything that I've told you?'
<i>Mother:</i>	'Yes, ma'am.'
<i>Health worker:</i>	'You don't have any questions?'
<i>Mother:</i>	'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 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.'
Comment:	What did you observe this time? 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. If you get an unclear response, ask another checking question. Praise the mother for correct understanding or clarify any information as necessary.

Demonstrate the skills: Arrange follow-up or referral

Write 'Arrange Follow-up or Referral' on the flip chart below 'Checking Understanding.'

Make these points:

- 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.

Ask participants if they have any questions, and try to answer them.

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.

Materials and preparation

- Copies for each group of Exercise: Prepare a Young Child's Meal.
- Display all the Counselling Skills and Key Messages from previous sessions.
- To prepare the plate of food you need:
 - A room in which you can bring food.
 - A table for each group to work at.
 - A variety of common foods (cooked if needed) that young children would eat, enough to make a child-size bowlful for each group, from the kitchen at the course facilities or elsewhere. Include some inappropriate food, if possible. Do not divide the food for the groups. Cover the food until you are ready to use it.
 - One plate, knife, fork, and eating spoon for each group.
 - A local measure that holds 250 ml as used in Session 30, marked at $\frac{1}{2}$ and $\frac{3}{4}$ full. Do not distribute this until after the plate of food is prepared by the group.
 - Facilities for washing hands before and after preparing food.
 - Waste container and materials for cleaning up afterwards.
- You will need a small amount of food and a set of equipment similar to the plate of food exercise above for the demonstration.
- Ask one participant and one trainer to assist you in the demonstration. Choose names for the people in the story. Adapt foods in the story as needed.

Suggested time: 45 minutes

Session guide

Helping a mother learn to prepare a suitable meal

Ask: In your experience, what is the best way to teach a mother a new skill or behaviour? For example, teaching a mother to prepare a new food recipe?

Wait for a few replies and then continue:

- 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. (*Point to the list of Counselling Skills.*)
- You can use your skills to:
 - Use open questions to find out if the mother understands.
 - Avoid words which sound judging 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.

Ask the participant and the trainer whom you prepared to give the demonstration. They should both stand at the same side of the table facing the rest of the group. A small selection of food and the equipment listed is on the table or beside it. Have the food and equipment clean and covered with a clean cloth.

Introduce the role play by making the following points:

- Likelehi has 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 observation, 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 to 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	
<i>Health worker:</i>	‘Good morning, Me Likelehi. How are you and Makalo today?’
<i>Mother:</i>	‘We are well, thank you.’
<i>Health worker:</i>	‘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?’
<i>Mother:</i>	‘It is good. One time he had about a half of a banana. Another time he had a piece of bread with some butter on it.’
<i>Health worker:</i>	‘Those sound like good snacks. Now, we want to talk about how much food to give for his main meal.’
<i>Mother:</i>	‘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.’ (Shows a bowl—about 250 ml size.) ⁹
<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.’ (Uncovers food.) ‘First we need to wash our hands.’
<i>Mother:</i>	‘Yes, I have some water here.’ (Washes hands with soap and dries them on clean cloth.)
<i>Health worker:</i>	‘Now, what could you start with for the meal?’
<i>Mother:</i>	‘I guess we would start with some rice.’ (Puts in two large spoonfuls.)
<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.’ (Puts in one large spoonful.)
<i>Health worker:</i>	‘Fish is a good food for Makalo. A little animal-source food each day helps him to grow well.’

⁹ If a different size cup or bowl is used, adjust the text according. 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>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?' (Puts in some.)
<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 ½ 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 would 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 ½ full 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?'
<i>Health worker:</i>	'Thick foods 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 bowl for each meal?'
<i>Mother:</i>	'I will fill it ½ full.'
<i>Health worker:</i>	'Very good. And how often each day will you give him some food?'
<i>Mother:</i>	'I will give ½ bowlful 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.'

Ask: What did you observe about how the health worker taught this mother?

Wait for a few replies, which should include the following points:

- 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.

Ask: How will this mother manage with preparing food for her child?

Encourage participants to discuss. Continue the discussion with the following points:

- Remember to use the counselling skills when you teach a mother. This supportive teaching can help to build her confidence as well as making 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.

Ask: What practices would the health worker look for when the child was being fed?

Wait for a few replies and then continue.

- The health worker would be looking for techniques such as:
 - Assist children to eat, being sensitive to their cues or signals.
 - Feed slowly and patiently, encourage but do not force.
 - Talk to children during feeding with eye-to-eye contact.
- We discussed these responsive feeding practices in Session 34.

Prepare a plate of food

Divide participants into four groups. Assign an age to each group. Add other ages as needed for more groups. Give participants the following instructions:

- Each group will now prepare a bowl or plate of food suitable for the age of child they are assigned: 6½ month old, 8 month old, 10 month old, 15 month 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 what foods mothers in your community give to young children.
- You are a busy mother. Do this task quickly.
- Be prepared afterwards 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.

Trainers observe their group and assist as needed.

- First, the group should discuss the foods and agree on choices rather than taking spoonfuls of all of the different foods and then deciding what they will use.
- Allow 10 minutes to choose and prepare the meal.
- Keep to the time, a mother would do this very quickly.

Discuss the meals prepared

Gather all the groups together with their finished plates of food. Distribute Exercise: Preparing a Young Child's Meal to each group.

Ask each group to score their own meal using the worksheet.

Allow a few minutes for the group to fill in the worksheet.

Ask each group in turn to explain their meal. Make sure that they answer the following:

- *Why did you choose those foods?*
- *Why did you prepare it in the way you did (mashed finely, chopped, etc.)?*
- *How thick is the consistency (for a young child—test with a spoon)?*
- *Are there any additional foods you would include that are not available?*
- *What are the one or two Key Messages you would use in a demonstration for mothers?*
- *Why did you give this amount?*

Except for the group with the baby of 6½ months,¹⁰ give the group the 250-ml container to measure the amount of food they prepared for their child.

- They are not allowed to ‘test’ the size of the meal during preparation.
- They must wait until they have finished to see if they have judged correctly.
- See the box Quantities of Food to Offer a Young Child for a Meal.
- *Is it the correct amount for a child of that age?*
- *How many meals of this size does a child of this age need each day?*

Ask the whole group: Were all the recommendations contained in the meal? Any suggestions you could give this group?

Repeat so each group has the opportunity to explain and discuss their meal.

Summarise the session

Ask participants if they have any questions or if there are points that you can make clearer.

Make these points:

- To be effective, when teaching mothers about feeding and care practises it is important to be supportive, using counselling skills.
- In addition to watching a demonstration, mothers may need to practise new skills under the gentle supervision of the counsellor, until they are competent and confident.
- Food demonstrations can be carried out individually or in groups in the community. A group demonstration reaches more families and can help to reinforce Key Messages on feeding.

¹⁰ The baby of 6½ months would have two to three spoonfuls.

Quantities of Food to Offer a Young Child for a Meal			
Age	Texture	Frequency	Amount of food an average child will usually eat at each meal ¹¹
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 ½ 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	½ 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	³ / ₄ 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.			

¹¹ Adapt the 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.

EXERCISE: PREPARING A YOUNG CHILD'S MEAL		
Group:		
Task	Achieved	Comments
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.

Planning guide for a group demonstration of the preparation of young children's food

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 a simple and nutritious food for young children using local ingredients (to learn through doing).
2. Demonstrate to mothers the appropriate consistency (thick) 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 (see Key Messages, inside back cover).
- Follow each message with a checking question (a question that you cannot answer 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 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 lots 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 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 are 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 opinion (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.
- Then the health worker reads out the list of the foods again.
- Ask the mothers when they think they can prepare this food for their young child (e.g., 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^{12,13} Fill in the food and the amount needed.

Recipe 1

Family food for a 10-month-old child's main course
(about 1/2 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 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 foods 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 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.

¹² The amounts indicated are recommended if the energy content of the meals is 0.8–1.0 Kcal/g. These amounts should be adjusted if the foods are diluted.

¹³ If there is need to increase the amounts of food for each meal, instruct the participants to make the change 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.
- List the Key Message from this session.

Materials and preparation

- Make sure that **Slides 37/1 through 37/5** are in the correct order. Study the slides and the text that goes with them so that you are able to present them.
- Flip chart and markers.
- Write the Key Message for this session on a flip-chart page. Keep covered until later in the session.
 - *Key Message 10: Encourage the child to drink and to eat during illness and provide extra food after illness to help the child recover quickly.*
- The flip-chart list of Responsive Feeding Practices from Session 34.
- A flip chart of all the Key Messages from earlier sessions.
- Find out what percentage of babies are low-birthweight in your area.

Suggested time: 35 minutes

Session guide

Make these points:

- 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 if 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

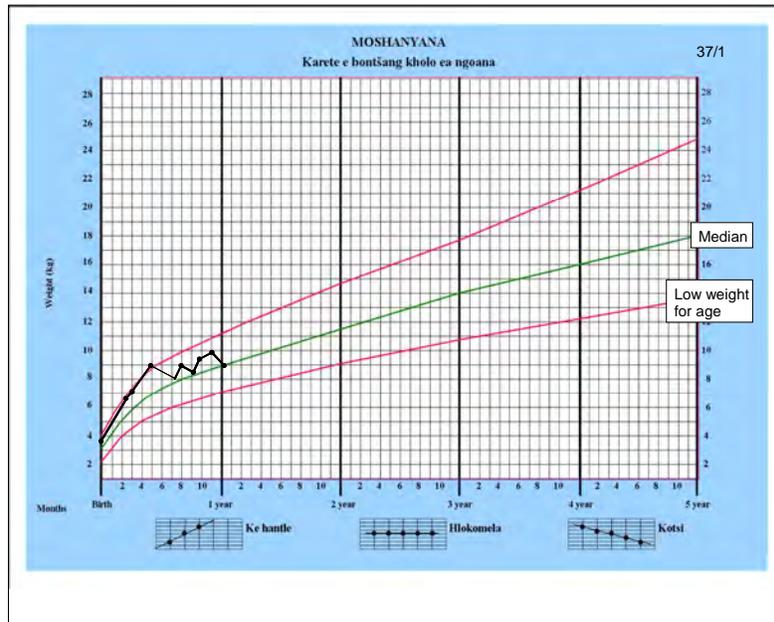
Ask: Why might a young child feed less during illness?

Write participants' replies on the flip chart. Refer to their responses as you make these points:

- 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.

Show **Slide 37/1**. Explain that this is the growth chart of Thabo who is 12 months old.



Ask: What do you think of the growth chart?

Wait for a few replies and then continue.

- 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 towards 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.

Show **Slide 37/2. Key Message 10: Feeding during and after illness**, and read it out.

37/2

Key Message 10

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

A black and white line drawing showing a woman on the left feeding a young child with a spoon. Another child is sitting next to them, looking on. There is a bowl on the table in front of them.

- 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

Show **Slide 37/3. Feeding the child who is ill**, and ask a participant to read out the points.

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

Then show **Slide 37/4. Feeding during recovery**, and ask a participant to read out the points.

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.

Discuss feeding of low-birthweight babies

Ask: What does the term low-birthweight mean?

Wait for a few replies and then share the following information:

- The term *low-birthweight* means a birthweight of less than 2,500 grams (up to and including 2,499 g), regardless of gestational age. (Babies who weigh less than 1,500 g 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 to 20 percent of all babies are low-birthweight.

Ask: How many babies are low-birthweight in this country?

Wait for a few replies and then continue:

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

Ask: Why is it sometimes difficult for low-birthweight babies to breastfeed exclusively?

Wait for a few replies and then continue. (Participants may give answers such as: low-birthweight babies are not able to suckle strongly at the breast; they need more of some nutrients than breastmilk can provide; it can be difficult for mothers to express enough breastmilk).

¹⁴ Lesotho National Nutrition Survey Report, November-December 2007.

- 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.

Ask: When should a mother with a low-birthweight baby start to express her milk?

Wait for a few replies and then continue. Encourage participants to think back to Session 15 on expressing breastmilk and explain the following:

- 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.

Ask: At what age can low-birthweight babies suckle from the breast?

Wait for a few replies and then continue by displaying the next slide.

Show **Slide 37/5. Feeding low-birthweight babies**, and make the points that follow:

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

- Babies of about 32 weeks gestational age or more are able to start suckling on the breast.
- Babies between about 30 to 32 weeks gestational age can take feeds from a small cup, or from a spoon.
- Babies below 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 to 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.

Continue with these points:

- 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.

AMOUNT OF MILK FOR LOW-BIRTHWEIGHT BABIES WHO CANNOT BREASTFEED

What milk to give:

Choice 1: Expressed breastmilk if possible from the baby's mother).

Choice 2: Formula made up according to the instructions.

Steps to take for babies who weigh less than 2.5 kg (low birthweight):

1. Start with 60 ml/kg body weight.
2. Increase the total volume by 20 ml per kg per day, until the baby is taking a total of 200 ml per kg per day/night.
3. Divide the total into 8 to 12 feeds over 24 hours, to feed every 2 to 3 hours.
4. If the baby is extremely low-birthweight (weighing 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 (weighing between 1.5 and 2.5 kg), continue until the baby weighs at least 1.8 kg or more, and is fully breastfeeding.
5. Check the baby's 24-hour intake.

Note: The size of individual feeds may vary.

Summarise the session

Ask participants if they have any questions or if there are points you can make clearer.

Point to the flip-chart page and remind participants of the Key Message:

Key Message 10: Encourage the child to drink and to eat during illness and provide extra food after illness to help the child recover quickly.

Trainer's notes

Whenever possible, low-birthweight babies should be under the care of a health worker with specialist training. However, this information may help you if specialist care is not easily available.

Time of first oral feed

If oral feeding is possible as soon as a baby is born, the first feed should be given within the first 2 hours, and every 2 to 3 hours thereafter to prevent hypoglycaemia (low blood sugar).

Cup-feeds

Cup-feeds give a baby valuable experience of taking food by mouth, and the pleasure of taste. They stimulate the baby's digestion. Many babies show signs of wanting to take things into their mouths at this stage, yet they are not able to suckle effectively at the breast.

Development of coordinated suckling

Babies can already swallow and suck long before 32 weeks gestation. From about 32 weeks, many babies can suckle from the breast, and some can breastfeed fully from this age, but they may have difficulty in coordinating suckling, swallowing, and breathing. They need to pause during a breastfeed to breathe. They can suckle effectively for a short time, but they often cannot suckle long enough to take all the breastmilk that they need. By about 36 weeks, most babies can coordinate suckling and breathing, and they can take all that they need by breastfeeding.

Weight as a guide to feeding method

Gestational age is a better guide to a baby's feeding ability than weight. However, it is not always possible to know gestational age. Many babies start to take milk from the breast when they weigh about 1.3 to 1.5 kg. Many can breastfeed fully when they weigh about 1.6 to 1.8 kg or less.

Skin-to-skin contact and kangaroo care

Skin-to-skin contact between a mother (or father) and baby has been found to help both bonding and breastfeeding, probably because it stimulates the secretion of prolactin and oxytocin.

If a baby is too sick to move, contact can be between the mother's hand and the baby's body. If a baby is well enough, let his mother hold him next to her body. Usually the best place is between her breasts, inside her clothes.

This is called *kangaroo care*. It has the following advantages:

- The warmth of the mother's body keeps her baby warm. He does not get cold, and he does not use up extra energy to keep warm. There is less need for incubators.
- The baby's heart works better, and he breathes more regularly.
- The baby cries less and sleeps better.
- It is easier to establish breastfeeding.