# INFANT AND YOUNG CHILD FEEDING COUNSELLING: AN INTEGRATED COURSE

## Participant's manual

**Second edition**

unicef

World Health Organization

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# Contents

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# Abbreviations used in this course

These abbreviations are mentioned throughout the course, either in this *Participant's manual* or in accompanying material. They are listed here for ease of reference.

| | |
|---|---|
| AIDS | acquired immunodeficiency syndrome |
| ART | antiretroviral therapy |
| ARV | antiretroviral |
| ARV3 | triple antiretroviral treatment (i.e. 3 doses per day) |
| AZT | azidothymidine |
| BFHI | Baby-friendly Hospital Initiative |
| BMI | body mass index |
| CBR | crude birth rate |
| CSB++ | milk-fortified corn–soy blend |
| DTG | dolutegravir |
| EFV | efavirenz |
| FTC | emtricitabine |
| GMP | growth monitoring and promotion |
| HIV | human immunodeficiency virus |
| HMIS | health management information system |
| IgA | immunoglobulin A |
| IgG | immunoglobulin G |
| ILO | International Labour Organization |
| IMCI | Integrated Management of Childhood Illness |
| IQ | intelligence quotient |
| IUD | intrauterine device |
| IYCF | infant and young child feeding |
| LQAS | lot quality assurance sampling |
| MGRS | WHO Multicentre Growth Reference Study |
| MNP | multiple micronutrient powder |
| MTCT | mother-to-child transmission of HIV |
| NVP | nevirapine |
| ORS | oral rehydration solution |
| PIP | programme impact pathway |
| PMTCT | prevention of mother-to-child transmission of HIV |
| RDT | rapid diagnostic test |
| RUSF | ready-to-use supplementary food |
| RUTF | ready-to-use therapeutic food |
| SD | standard deviation |
| SMART | specific, measurable, achievable, relevant, time-bound |
| 3TC | lamivudine |
| TB | tuberculosis |
| TDF | tenofovir |
| UHT | ultra-high temperature |
| UNAIDS | Joint United Nations Programme on HIV/AIDS |
| UNICEF | United Nations Children's Fund |
| USA | United States of America |
| WASH | water, sanitation and hygiene |
| WHA | World Health Assembly |
| WHO | World Health Organization |

# Glossary

**Absorbed iron:** 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.

**Accuracy:** Correctness. The accuracy of a measurement depends on whether the instrument is correctly calibrated and whether the observer measures correctly (i.e. takes, reads and records the measurement correctly).

**Active encouragement:** Assistance given to encourage a child to eat. This includes praising, talking to the child, helping the child put food on the spoon, feeding the child, making up games.

**Afterpains:** Contraction of the uterus during breastfeeding in the first few days after childbirth, owing to release of oxytocin.

**AIDS:** Acquired immune deficiency syndrome, which means that a person who is living with HIV has progressed to active disease.

**Allergy:** Symptoms when fed even a small amount of a particular food (so it is not dose related).

**Alveoli:** Small sacs of milk-secreting cells in the breast.

**Amenorrhoea:** Absence of menstruation.

**Anaemia:** Lack of red cells or lack of haemoglobin in the blood.

**Antenatal preparation:** Preparation of a mother for the delivery of her baby.

**Antibodies:** Proteins in the blood and in breast milk that fight infection.

**Anti-infective factors:** Factors that prevent or that fight infection. These include antibodies.

**Appropriate touch:** Touching somebody in a socially acceptable way.

**Areola:** Dark skin surrounding the nipple.

**Artificial feeding:** Feeding an infant on a breast-milk substitute.

**Artificial feeds:** Any kind of milk or other liquid given instead of breastfeeding.

**Artificially fed:** Receiving artificial feeds only, and no breast milk.

**Asthma:** Wheezing illness.

**Attachment:** The way a baby takes the breast into their mouth; a baby may be well attached or poorly attached to the breast.

**Baby-friendly Hospital Initiative (BFHI):** An approach to transforming maternity practices, as recommended in the joint World Health Organization (WHO)/United Nations Children's Fund (UNICEF) statement on *Protecting, promoting and supporting breastfeeding: the special role of maternity services* (1989).[1]

**Baby-led feeding:** *See* **Demand feeding**.

**Bedding-in:** A baby sleeping in bed with their mother, instead of in a separate cot.

**Bilirubin:** Yellow breakdown products of haemoglobin, which cause jaundice.

**Blocked duct:** A milk duct in the breast becomes blocked with thickened milk, so that the milk in that part of the breast does not flow out.

**BMI:** Body mass index; a ratio that indicates a person's weight in proportion to their length/height, calculated as $kg/m^1$.

**BMI-for-age:** A growth indicator that relates BMI to age.

**Bonding:** Development of a close loving relationship between a mother and her baby.

**Bottle-feeding:** Feeding an infant from a bottle, whatever is in the bottle, including expressed breast milk, water, formula milk, etc.

**Breast pump:** Device for expressing milk.

**Breast refusal:** A baby not wanting to suckle from their mother's breast.

**Breastfeeding history:** All the relevant information about what has happened to a mother and baby, and how their present breastfeeding situation developed.

**Breastfeeding supplementer:** A device for giving a baby a supplement while they are suckling at a breast that is not producing enough milk.

**Breastfeeding support:** A group of mothers who help each other to breastfeed.

**Breast-milk substitute:** Any food being marketed or otherwise represented as a partial or total replacement for breast milk, whether or not it is suitable for that purpose.

**Calibration:** Checking a measuring instrument for accuracy and adjusting if necessary and possible.

**Calories (or kilocalories):** A measure of the energy available in food.

[1] Protecting, promoting and supporting breastfeeding: the special role of maternity services. A joint WHO/UNICEF statement. Geneva: World Health Organization; 1989 (http://apps.who.int/iris/bitstream/10665/39679/1/9241561300.pdf).

***Candida*:** Yeast that can infect the nipple, and the baby's mouth and bottom. Also known as "thrush".

**Care for development:** Care intended to stimulate emotional, intellectual and motor development.

**Casein:** Protein in milk, which forms curds.

**Cessation of breastfeeding:** Completely stopping breastfeeding, including suckling.

**Chapati:** A flat bread made by mixing whole-wheat flour with water and then shaping pieces of the dough into flat circles and baking on a griddle (hot metal sheet). Traditionally eaten in India and Pakistan.

**Cleft lip or palate:** Abnormal division of the lip or palate.

**Closed questions:** Questions that can be answered with "yes" or "no".

**Colic:** Regular crying, sometimes with signs suggesting abdominal pain, at a certain time of day; the baby is difficult to comfort but otherwise well.

**Cold compress:** Cloths soaked in cold water to put on the breast.

**Colostrum:** The special breast milk that women produce in the first few days after delivery; it is yellowish or clear in colour.

**Confidence:** Believing in yourself and your ability to do things.

**Contaminated:** Containing harmful bacteria or other harmful substances.

**Commercial infant formula:** A breast-milk substitute formulated industrially, in accordance with applicable *Codex Alimentarius* standards,[1] to satisfy the nutritional requirements of infants during the first months of life up to the introduction of complementary foods.

**Complementary feeding:** The child receives both breast milk, or a breast-milk substitute, and solid (or semi-solid) food.

**Complementary food:** Any food, whether manufactured or locally prepared, used as a complement to breast milk or to a breast-milk substitute.

**Counselling:** A way of working with people so that you understand their feelings and help them to develop confidence and decide what to do.

**Cup-feeding:** Feeding from an open cup without a lid, whatever is in the cup.

**Deficiency:** Shortage of a nutrient that the body needs.

**Dehydration:** Lack of water in the body.

**Demand feeding:** Feeding a baby whenever they show that they are is ready, both day and night. This is also called "unrestricted" or "baby-led" feeding.

**Distraction (during feeding):** A baby's attention is easily taken from the breast by something else, such as a noise.

**Ducts, milk ducts:** Small tubes that take milk to the nipple.

**Dummy:** An artificial nipple made of plastic for a baby to suck. Also known as a pacifier/soother.

**Early contact:** A mother holding her baby during the first hour or two after delivery.

**Eczema:** Skin condition, often associated with allergy.

**Effective suckling:** Suckling in a way that removes the milk efficiently from the breast.

**Empathize:** Show that you understand how a person feels from her/his point of view.

**Engorgement:** The breast is swollen with breast milk, blood and tissue fluid. Engorged breasts are often painful and oedematous and the milk does not flow well.

**Essential fatty acids:** Fats that are essential for a baby's growing eyes and brain, and that are not present in cow's milk or most brands of formula milk.

**Exclusive breastfeeding:** An infant receives only breast milk and no other liquids or solids, not even water. Drops or syrups consisting of vitamins, mineral supplements or medicines, including oral rehydration solution, are permitted.

**Expressed breast milk:** Milk that has been removed from the breasts manually or by using a pump.

**Express:** To squeeze or press out.

**Family foods:** Foods that are part of the family meals.

**Fat:** A nutrient that provides energy.

**Feeding history:** All the relevant information about what has happened to a mother/caregiver and baby, and how their present feeding situation developed.

**Fermented foods:** Foods that are soured. For example, yoghurt is fermented milk. These substances can be beneficial and kill pathogens that may contaminate food.

**Fissure:** Break in the skin, sometimes called a "crack".

**Flat nipple:** A nipple that sticks out less than average.

**Foremilk:** The watery breast milk that is produced early in a feed.

**Formula milks:** Artificial milks for babies made out of a variety of products, including sugar, animal milks, soybean and vegetable oils. They are usually in powder form, to mix with water.

**Fortified foods:** Foods that have certain nutrients added to improve their nutritional quality.

[1] Codex Alimentarius. International food standards (http://www.fao.org/fao-who-codexalimentarius/en/).

**Full breasts:** Breasts that are full of milk, and hot, heavy and hard, but from which the milk flows.

**Fully breastfed:** Exclusively breastfed.

**Gastric suction:** Sucking out a baby's stomach immediately after delivery.

**Germinated seeds/flour:** Seeds that have been soaked and allowed to sprout. The sprouted seeds can be dried and milled to make germinated flour. If a little of this flour is added to warm thick porridge, it makes the porridge soft and easy to eat.

**Gestational age:** The number of weeks a baby has completed in the uterus.

**Ghee:** Butter that has been heated so that the fat melts and the water evaporates. It looks clear. It can be made from cow's or buffalo's milk and is widely used in India. In the Middle East, it is called *samna*.

**Gross motor development:** Development of movement and body control related to use of the larger muscles (e.g. development of crawling and walking skills), as contrasted with fine motor development (e.g. use of the hands and fingers to grasp small objects). *See also* **Gross motor milestones**.

**Gross motor milestones:** Important achievements related to movement and body control, including sitting without support, standing with assistance, hands-and-knees crawling, walking with assistance, standing alone and walking alone.

**Growth factors:** Substances in breast milk that promote growth and development of the intestine, and that probably help the intestine to recover after an attack of diarrhoea.

**Growth spurt:** Sudden increased hunger for a few days.

**Gruel:** Another name for thin porridge. Examples are *atole* in Central America and *uji* in Africa.

**Gulp:** Loud swallowing sounds, owing to swallowing a lot of fluid.

**"High-needs" babies:** Babies who seem to need to be carried and comforted more than other babies.

**Hindmilk:** The fat-rich breast milk that is produced later in a feed.

**HIV:** Human immunodeficiency virus, which causes AIDS. *See also* **AIDS**.

**HIV infected:** Refers to a person infected with HIV, but who may not know that they are infected.

**HIV negative:** Refers to a person who has been tested for HIV with a negative result and who knows their result.

**HIV positive:** Refers to a person who has been tested for HIV, whose results have been confirmed and who knows and/or their parents know that they tested positive.

**HIV status unknown:** Refers to a person who has been tested for HIV or who does not know the result of their test.

**HIV testing and counselling:** Testing for HIV status, preceded and followed by counselling. Testing should be voluntary and confidential, with fully informed consent. The expression means the same as the terms: "counselling and voluntary testing", "voluntary counselling and testing", and "voluntary and confidential counselling and testing". Counselling is a process, not a one-off event: for the client living with HIV, it should include life planning, and, if the client is pregnant or has recently given birth, it should include infant feeding considerations.

**Hormones:** Chemical messengers in the body.

**Hypoglycaemia:** Low blood sugar.

**Immune system:** Those parts of the body and blood, including lymph glands and white blood cells, that fight infection.

**Immunity:** A defence system that the body has to fight diseases.

**Ineffective suckling:** Suckling in a way that removes milk from the breast inefficiently or not at all.

**Infant:** A child not more than 12 months of age.

**Infant feeding counselling:** Counselling on breastfeeding, on complementary feeding, and, for women who are living with HIV, on HIV and infant feeding.

**Infantometer:** A board designed to be placed on a horizontal surface to measure the length (lying down) of a child aged less than 2 years.

**Infective mastitis:** Mastitis resulting from bacterial infection.

**Inhibit:** To reduce or stop something.

**Inspection**: Examination by looking.

**Intolerance (of food):** Inability to tolerate a particular food.

**Inverted nipple:** A nipple that goes in instead of sticking out, or that goes in when the mother tries to stretch it out.

**Jaggery:** Brown sugar made from the sap of the palm flower. It is widely used in the Indian subcontinent.

**Jaundice:** Yellow colour of the eyes and skin.

**Judging words:** Words that suggest that something is right or wrong, good or bad.

**Kwashiorkor:** A form of severe undernutrition characterized by generalized oedema, thin, sparse hair and dark or cracking/peeling patches of skin.

**Lactation:** The process of producing breast milk.

**Lactation amenorrhoea method:** Using the period of amenorrhoea after childbirth as a method for family planning.

**Lactogogue:** A special food, drink or herb that people believe increases a mother's supply of breast milk.

**Lactose:** The special sugar present in all milks.

**Length/height-for-age:** A growth indicator that relates length or height to a child's age.

**Lipase:** Enzyme to digest fat.

**Low birth weight:** Weighing less than 2.5 kg at birth.

**Marasmus:** A form of severe undernutrition referred to alternatively as "non-oedematous malnutrition". A child with marasmus is severely wasted and has the appearance of "skin and bones".

**Mastitis:** Inflammation of the breast (*see also* **Infective mastitis** and **Non-infective mastitis**).

**Matooke:** Green banana.

**Mature milk:** The breast milk that is produced a few days after birth.

**Meconium:** The first dark stools produced by a baby soon after birth.

**Median:** The middle value in a rank-ordered series of values.

**Median duration of breastfeeding:** The age in months when 50% of children are no longer breastfed.

**Micronutrients:** Essential nutrients required by the body in small quantities (such as vitamins and some minerals).

**Micronutrient supplements:** Preparations of vitamins and minerals.

**Milk ejection:** Milk flowing from the breast due to the oxytocin reflex, which is stimulated in response to the sight, touch or sound of the baby.

**Milk stasis:** Milk staying in the breast and not flowing out.

**Mistaken idea:** An idea that is incorrect.

**Milk expression:** Removing milk from the breasts manually or by using a pump.

**Mixed feeding:** Feeding both breast milk and other foods or liquids.

**Montgomery's glands:** Small glands in the areola that secrete an oily liquid.

**Multiple birth:** Birth of more than one child at the same time, e.g. twins.

**Natural (passive) immunity:** The protection a baby inherits from their mother.

**"Nipple confusion":** A term sometimes used to describe the way babies who have fed from a bottle may find it difficult to suckle effectively from a breast.

**Nipple sucking:** When a baby takes only the nipple into their mouth, so that they cannot suckle effectively.

**Non-infective mastitis:** Mastitis due to milk leaking out of the alveoli and back into the breast tissues, with no bacterial infection.

**Non-verbal communication:** Showing your attitude through your posture and expression.

**Nutrients**: Substances the body needs that come from the diet. These are carbohydrates, proteins, fats, minerals and vitamins.

**Nutritional needs:** The amounts of nutrients needed by the body for normal function, growth and health.

**Mother-support group:** A community-based group of women providing support for optimal breastfeeding and complementary feeding.

**Mother-to-child transmission:** Transmission of HIV to a child from a woman infected with HIV during pregnancy, delivery or breastfeeding.

**Obese:** Severely overweight; weight-for-length/height or BMI-for-age above the 3 *z*-score line.

**Obesity:** The condition of being obese.

**Oedema:** Swelling due to fluid in the tissue.

**Offal/organs:** Liver, heart, kidneys, brain, intestines, blood.

**Open questions:** Questions that can only be answered by giving information, and not with just a "yes" or a "no".

**Overweight:** Weighing too much for one's length/height; weight-for-length/height or BMI-for-age above the 2 *z*-score line.

**Oxytocin:** The hormone that makes the milk flow from the breast.

**Pacifier:** Artificial nipple made of plastic for a baby to suck, a dummy.

**Palpation:** Examining by feeling with the hand.

**Partially breastfed** or **mixed fed:** Breastfed and given some artificial feeds, either milk or cereal, or other food.

**Pasteurized:** Food (usually milk) made safe by heating it to destroy disease-producing pathogens.

**Pathogen:** Any organism that causes disease.

**Perinatal:** Around the time of birth.

**Perpendicular:** Positioned at a right angle (90° angle).

**Persistent diarrhoea:** Diarrhoea that starts as an acute attack, but that continues for more than 14 days.

**Pesticides:** Substances (usually sprays) used by farmers to prevent pests from attacking crops.

**Phytates:** Substances present in cereals, especially in the outer layer (bran), and in peas, beans and nuts. Phytates combine with iron, zinc and calcium in food to form substances that the body cannot absorb. Eating foods containing vitamin C helps protect iron from the adverse effect of phytates.

**Pneumonia:** Infection of the lungs.

**Poorly protractile:** Used to describe a nipple that is difficult to stretch out to form a "teat".

**Porridge:** Made by cooking cereal flour with water until it is smooth and soft. Grated cassava or other root, or grated starchy fruit can also be used to make porridge.

**Positioning:** How a mother holds her baby at her breast; the term usually refers to the position of the baby's whole body.

**Postnatal check:** Routine visit to a health facility after a baby is born.

**Precision:** The smallest exact unit that an instrument can measure. For example, the UNISCALE measures with precision to the nearest 0.1 kg.

**Predominantly breastfed:** Breastfed as the main source of nourishment, but also given small amounts of non-nutritious drinks such as tea, water and water-based drinks.

**Prelacteal feeds:** Artificial feeds given before breastfeeding is established.

**Premature, preterm:** Born before 37 weeks' gestation.

**Prolactin:** The hormone that makes the breasts produce milk.

**Protein:** Nutrient necessary for growth and repair of the body tissues.

**Protractile:** Used to describe a nipple that is easy to stretch out.

**Psychological:** Mental and emotional.

**Pulses:** Foods that include peas, lentils, beans and groundnuts.

**Puree:** Food that has been made smooth by passing it through a sieve or mashing it with a fork, pestle or other utensil.

**Quinoa:** A cereal grown at high altitude in the Andes in South America.

**Recumbent:** Lying down.

**Reflect back:** Repeat back what a person says to you, in a slightly different way.

**Reflex:** An automatic response through the body's nervous system.

**Rejection of baby:** The mother not wanting to care for her baby.

**Relactation:** Re-establishment of breastfeeding after a mother has stopped, whether in the recent or distant past.

**Replacement feeding:** The process of feeding a child who is not receiving any breast milk with a diet that provides all the nutrients they need until they are fully fed on family foods. During the first 6 months, this should be with a suitable breast-milk substitute. After 6 months, it should be with a suitable breast-milk substitute, as well as complementary foods made from appropriately prepared and nutrient-enriched family foods.

**Responsive feeding:** Feeding infants directly and assisting older children when they feed themselves, being sensitive to their hunger and satiety cues.

**Restricted breastfeeds:** When the frequency or length of breastfeeds is limited in any way.

**Retained placenta:** A small piece of the placenta remaining in the uterus after delivery.

**Rooming-in:** A baby staying in the same room as their mother.

**Rooting:** A baby searching for the breast with their mouth.

**Rooting reflex:** A baby opening their mouth and turning to find the nipple.

**Rubber teat:** The part of a feeding bottle from which a baby sucks.

**Scissor hold:** Holding the breast between the index and middle fingers while the baby is feeding.

**SD score:** Standard deviation score. *See* ***z*-score**.

**Secrete:** Produce a fluid in the body.

**Self-weaning:** A baby more than 1 year old deciding by themself to stop breastfeeding.

**Sensory impulses:** Messages in nerves that are responsible for feeling.

**Silver nitrate drops:** Drops put into a baby's eyes to prevent infection with gonococcus or chlamydia.

**Skin-to-skin contact:** A mother holding her naked baby against her own skin.

**Sore nipples:** Pain in the nipple and areola when the baby feeds.

**"Spillover":** A term used to designate the feeding behaviour of new mothers who either know that they are HIV negative or are unaware of their HIV status – they do not breastfeed, or they breastfeed for a short time only, or they mix-feed, because of unfounded fears about HIV, misinformation or the ready availability of breast-milk substitutes.

**Stadiometer:** A board for measuring the standing height of children age 2 years or older.

**Stagnation:** Staying the same. A flat growth line indicates stagnation of growth.

**Stunted:** Short for one's age; length/height-for-age below the −2 *z*-score line; **severely stunted** is below the −3 *z*-score line.

**Sucking:** Using negative pressure to take something into the mouth.

**Sucking reflex:** A reflex that allows a baby to automatically suck something that touches their palate.

**Suckling:** The action by which a baby removes milk from the breast.

**Supplements:** Drinks or artificial feeds given in addition to breast milk.

**Sustaining:** Continuing to breastfeed up to 2 years or beyond; helping breastfeeding mothers to continue to breastfeed.

**Swallowing reflex:** A reflex whereby a baby automatically swallows when their mouth fills with fluid.

**Symmetrical:** The same (mirror images) on opposite sides separated by a straight line.

**Sympathize:** Show that you feel sorry for a person, from your point of view.

**Tare:** As used in these modules, to store a weight in the memory of a scale so that an additional weight can be registered independently. In **tared weighing**, the scale is reset to zero while an adult is still standing on it; when the adult is then given a child to hold, only the child's weight appears.

**Taring scale:** A scale that can be reset to zero while someone (who has just been weighed) is still standing on it. When they then hold a child on the scale, only the child's weight appears.

**Tarwi:** A bean grown in the Andes in South America.

**"Teat":** Stretched out breast tissue from which a baby suckles.

**Thrush:** Infection caused by the yeast *Candida*; in the baby's mouth, thrush forms white spots

**Tortilla:** A flat bread made by mixing maize flour and water and then making the dough into a thin round shape. It is cooked on a hot metal griddle. It is traditionally eaten in Central America. Wheat flour can also be used.

**Toxin:** A poisonous substance.

**Undernourished:** Any of the following:

- underweight or severely underweight (below the −2 or −3 *z*-score line in weight-for-age)
- wasted or severely wasted (below the −2 or −3 *z*-score line in weight-for-length/height or BMI-for-age)
- stunted or severely stunted (below the −2 or −3 *z*-score line in length/height-for-age). However, if overweight or trending toward overweight, the child is no longer considered as primarily undernourished.

**Undernutrition:** The condition of being undernourished.

**Underweight:** Weighing too little for one's age; weight-for-age below the −2 *z*-score line; **severely underweight** is below the −3 *z*-score line.

**UNISCALE:** An electronic scale made by UNICEF that allows tared weighing.

**Unrestricted feeding:** *See* **Demand feeding**.

**Wasted:** Weighing too little for one's length/height; weight-for-length/height or BMI-for-age below the −2 *z*-score line; **severely wasted** is below the −3 *z*-score line.

**Warm compress:** Cloths soaked in warm water to put on the breast.

**Weight-for-age:** A growth indicator that relates weight to age.

**Weight-for-length/height:** A growth indicator that relates weight to length (for children aged less than 2 years) or height (for children aged 2 years and older).

**Whey:** Liquid part of milk that remains after removal of casein curds.

**Young child:** A person from the age of more than 12 months up to the age of 3 years (36 months).

***z*-score:** A score that indicates how far a measurement is from the mean, also known as "standard deviation (SD) score". The reference lines on the growth charts (labelled 1, 2, 3, −1, −2, −3) are called ***z*-score lines**; they indicate how far points are above or below the mean (*z*-score 0).

# Checklist of counselling skills

## Listening and learning skills

1. Use helpful non-verbal communication
    - Keep your head level with the mother/caregiver
    - Pay attention
    - Remove physical barriers
    - Take time/allow the mother or caregiver time to talk
    - Use appropriate touch
2. Ask open questions
3. Use responses and gestures that show interest
4. Reflect back what the mother/caregiver says
5. Empathize – show that you understand how the mother/caregiver feels
6. Avoid using words that sound judging

## Skills for building confidence and giving support

1. Accept what a mother/caregiver thinks and feels. Let the mother/caregiver talk through their concerns before correcting any wrong ideas or misinformation
2. Recognize and praise what a mother/caregiver and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

### Key messages for complementary feeding

1. Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy
2. Starting other foods in addition to breast milk at 6 completed months helps a child to grow well
3. Foods that are thick enough to stay on the spoon give more energy to the child
4. Animal-source foods are especially good for children, to help them grow strong and lively
5. Peas, beans, lentils, nuts and seeds are good for children
6. Dark-green leaves and yellow-coloured fruits and vegetables help the child to have healthy eyes and fewer infections
7. A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods
8. A growing child needs increasing amounts of food
9. A young child needs to learn to eat: encourage and give help… with lots of patience
10. Encourage the child to drink and eat during illness, and provide extra food after illness to help them recover quickly

# Introduction to the course

## Why this course is needed

Breastfeeding and appropriate, safe and timely complementary feeding are fundamental to the health and development of children, and important for the health of their mothers. The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have long recognized the need for promotion of exclusive breastfeeding in the first 6 months of life, and sustained breastfeeding together with adequate complementary foods up to 2 years of age or beyond, to reduce child morbidity and mortality.

WHO and UNICEF developed the *Global strategy for infant and young child feeding*[1] in 2003, to revitalize world attention to the impact that feeding practices have on the nutritional status, growth, development, health and survival of infants and young children. The sixty-third World Health Assembly Resolution WHA63.23 urges Member States to implement the *WHO child growth standards* by their full integration into child health programmes.[2]

In 2015, with the endpoint of the United Nations' Millennium Development Goals[3] and the transition to the Sustainable Development Goals,[4] a new set of 17 goals defined the global agenda to end poverty, protect the planet and ensure prosperity for all. The second goal (end hunger, achieve food security and improved nutrition and promote sustainable agriculture) and the third goal (ensure healthy lives and promote well-being for all at all ages) directly link to nutrition actions, though most of the other goals also reflect nutrition issues. *The global strategy for women's, children's and adolescents' health 2016–2035*[5] aims to achieve the highest attainable standard of health for all, by putting women, children and adolescents at the heart of the Sustainable Development Goals.

The *WHO child growth standards*,[6] published in 2006, were developed using a sample of children from six countries: Brazil, Ghana, India, Norway, Oman and the United States of America. The WHO Multicentre Growth Reference Study (2004)[7] was designed to provide data describing how children should grow, by including in the study's selection criteria certain recommended health behaviours (for example, breastfeeding, providing standard paediatric care and not smoking). A key characteristic of the new standards is that they explicitly identify breastfeeding as the biological norm and establish the breastfed child as the normative model for growth and development,[8] and are a most appropriate complement to the WHO/UNICEF *Global strategy for infant and young child feeding*.[1]

Many mothers have difficulty breastfeeding from the beginning, and health-care practices in many facilities hinder the process of appropriate infant and young child feeding. However, even mothers who initiate breastfeeding satisfactorily often start complementary feeds or stop breastfeeding within a few weeks of delivery, and children, even those who have grown well for the first 6 months of life, may not receive adequate complementary foods. This may result in malnutrition, which is an increasing problem in many countries. More than one third of children aged under 5 years are undernourished – whether stunted, wasted or deficient in vitamin A, iron or other micronutrients. On the other hand, inappropriate feeding is probably contributing to an increased incidence of overweight/obesity in childhood. Application of the *WHO child growth standards* and counselling on infant and young child feeding, as presented in this course, aim to address the practices that lead to undernutrition, as well as those that predispose to the accumulation of excessive weight.

Information on how to feed young children comes from family beliefs, community practices and information from health workers. Advertising and commercial promotion by food manufacturers is sometimes the source of information for many people, both families and health workers. It has often been difficult for health workers to discuss with families how best to feed their young children, owing to the confusing, and often conflicting, information available. Inadequate knowledge about how to breastfeed, the appropriate complementary foods to give, and good feeding practices is often a greater determinant of malnutrition than the availability of food.

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[1] Global strategy for infant and young child feeding. Geneva: World Health Organization; 2003 (http://apps.who.int/iris/bitstream/10665/42590/1/9241562218.pdf).
[2] Resolution WHA63.23. Infant and young child nutrition. In: Sixty-third World Health Assembly, Geneva, 17–21 May 2010. Resolutions and decisions, annexes. Geneva: World Health Organization; 2010: 47–50 (http://apps.who.int/gb/ebwha/pdf_files/WHA63-REC1/WHA63_REC1-en.pdf).
[3] The Millennium Development Goals Report 2015. New York: United Nations; 2015 (https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf).
[4] Sustainable Development Knowledge Platform. Sustainable Development Goals (https://sustainabledevelopment.un.org/sdgs).
[5] The global strategy for women's, children's and adolescents' health 2016–2030. Survive, thrive, transform. Geneva: World Health Organization; 2015 (http://www.who.int/pmnch/media/events/2015/gs_2016_30.pdf).
[6] The WHO child growth standards. In: Child growth standards [website]. Geneva: World Health Organization; 2021 (https://www.who.int/toolkits/child-growth-standards/standards).
[7] de Onis M, Garza C, Victora CG, Bhan MK, Norum KR, editors. WHO Multicentre Growth Reference Study: rationale, planning and implementation. Food Nutr Bull. 2004;25 (Suppl. 1):S15–26. doi:10.1177/15648265040251S103.
[8] de Onis M, Garza C, Onyango AW, Martorell R, guest editors. WHO child growth standards. Acta Paediatr. 2006;Suppl. 450:1–101.

All health workers who care for women and children during the postnatal period and beyond have a key role to play in establishing and sustaining breastfeeding and appropriate complementary feeding. Many health workers cannot fulfil this role effectively because they have not been trained to do so. Little time is assigned to counselling and support skills for breastfeeding and infant feeding, in the pre-service curricula of either doctors, nurses, midwives or other professionals.

Hence, there is an urgent need to train all those involved in infant feeding counselling, in all countries, in the skills needed to support and protect breastfeeding and good complementary feeding practices. The materials in this training course are designed to make it possible for trainers, even those with limited experience on teaching the subject, to conduct up-to-date and effective training.

The counselling material available from WHO/UNICEF includes modules related to:

- counselling skills
- breastfeeding
- complementary feeding
- growth assessment
- HIV and infant feeding.

In addition, there is material on policies and programmes related to infant and young child feeding; supportive supervision/mentoring and monitoring; and tools/Job aids.

The material could be used to hold a 5-day course on infant and young child feeding counselling, a 5-day course on growth assessment and infant and young child feeding counselling, or courses on specific subjects, such as breastfeeding counselling.

**"Counselling"** is an extremely important component of this course material. The concept of "counselling" is new to many people and can be difficult to translate. Some languages use the same word as **"advising"**. However, counselling means more than simply advising. Often, when you advise people, you tell them what you think they should do. When you counsel, you listen to the people and help every person decide for themselves what is best for them, from various options or suggestions, and you help them to have the confidence to carry out their decision. You listen to them and try to understand how they feel. This course aims to give health workers basic counselling skills, so that they can help mothers and caregivers more effectively.

The course material can be used to complement existing courses, or as part of the pre-service education of health workers.

This course material does NOT prepare people to have responsibility for the nutritional care of young children with severe malnutrition or nutrition-related diseases such as diabetes or metabolic problems. In addition, it does not prepare people to conduct full voluntary confidential counselling and HIV testing – which includes pre-test and post-test counselling for HIV, and follow-up support for those living with HIV. Nor does it cover in depth the topics on treatment, care and management of people living with HIV, including the use of antiretroviral drugs or antiretroviral therapy. The material covers only aspects specifically related to infant feeding in the context of HIV. Participants are encouraged to refer mothers or young children for further services and care as necessary.

During the course, you will be asked to work hard. You will be given a lot of information, and you will be asked to do a number of exercises and practical sessions to develop your counselling skills. Hopefully, you will find the course interesting and enjoyable, and the skills that you learn will make your work with mothers and babies in future more helpful for them, and more rewarding for you.

## Course objectives

After completing this course, participants will be able to counsel and support mothers to carry out WHO/UNICEF-recommended feeding practices for their infants and young children, from birth up to 24 months of age.

Each session of the course has a set of learning objectives that participants are expected to fulfil.

## The course and the manual

The course is divided into various modules and will take different times, according to the modules and sessions selected. The course can be conducted consecutively in a working week, or can be spread in other ways. The sessions use a variety of teaching methods, including lectures, demonstrations and work in smaller groups, including classroom practical sessions and exercises and clinical practice sessions in wards and clinical facilities. Sessions can be arranged in different ways to suit the local situation. Your course director and facilitators will plan the course that is most suitable for your needs, and will give you a timetable.

This manual, the *Participant's manual*, is your main guide to the course, and you should keep it with you at all times, except during clinical practice sessions. You will be provided the modules selected for your training.

In the material provided, you will find a summary of the main information from each session, including descriptions of how to conduct each of the skills that you will learn. You do not need to take detailed notes during the sessions, though you may find it helpful to make notes of points of particular interest, for example from discussions. Keep your *Participant's manual* after the course, and use it as a source of reference as you put what you have learnt into practice.

Your manual also contains:

- copies of the key slides that you might want to memorize or refer back to
- forms, lists and checklists for exercises and practical and clinical practice sessions
- written exercises that you will be asked to do individually.

You will receive separate copies of the forms, lists and checklists to use for the practical and clinical practice sessions, so that you do not have to carry your manual at these times.

You will receive answer sheets for each written exercise after you have done the exercise. These enable you to check your answers later, and to study any questions that you may not have had time to complete.

# MODULE 1

## Introduction to infant and young child feeding and growth assessment

# Session 1

## Introduction to infant and young child feeding

### Objectives

After completing this session, participants will be able to:

- list evidence-based interventions targeting infants and young children
- describe global initiatives or strategies promoting nutrition interventions targeting the first 1000 days of life
- state the current recommendations for feeding children from 0 up to 24 months of age

### Introduction

We will start this course by looking at the global data supporting interventions in infancy and childhood.

### The window of opportunity

New analyses, using the *WHO child growth standards*, confirm the importance of pregnancy and the first 2 years of life as a window of opportunity for growth promotion. The findings highlight the need for prenatal and early-life interventions to prevent the growth failure that primarily happens during the first 2 years of life, including the promotion of appropriate infant feeding practices.

The document *Essential nutrition actions: improving maternal, newborn, infant and young child health and nutrition* is a compilation of current guidelines targeting mothers, infants and young children. Infant and young child feeding is a core element of the guidelines. The document starts reviewing data related to the health and nutrition of children, to highlight the importance of appropriate infant and young child feeding practices.

### Breastfeeding for the first 6 months of life

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants. As a global public health recommendation, infants should be *exclusively* breastfed for the first 6 months of life, to achieve optimal growth, development and health.

#### DEFINITION OF EXCLUSIVE BREASTFEEDING

Exclusive breastfeeding means giving a baby only breast milk, and no other liquids or solids, not even water. Drops or syrups consisting of vitamins, mineral supplements or medicines, including oral rehydration solution (ORS), are permitted.

Mothers need skilled practical help from people like yourself, who can help to build their confidence, improve their feeding technique and prevent or resolve breastfeeding problems, if they are to succeed in breastfeeding exclusively.

## Actions to protect, promote and support breastfeeding

The *Global strategy for infant and young child feeding*, launched in 2002, was developed by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) jointly, to revitalize world 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.

The *Global strategy* builds on key global instruments, including:

- the *International code of marketing of breast-milk substitutes* (1981) and subsequent relevant World Health Assembly (WHA) resolutions (the Code)
- the Baby-Friendly Hospital Initiative (BFHI), launched in 1991
- the International Labour Organization (ILO) *Maternity Protection Convention No. 183* (2000).

## Complementary feeding

After 6 months of age, all babies require other foods to complement breast milk – we call these foods **complementary foods**. When complementary foods are introduced, breastfeeding should still continue up to 2 years of age or beyond.

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

- **timely** – meaning that they are introduced when the need for energy and nutrients exceeds what can be provided through exclusive and frequent breastfeeding (at 6 months)
- **adequate** – meaning that they are age-appropriate in terms of feeding frequency, amount, thickness/texture and variety from 6 up to 24 months of age
- **properly fed** – meaning that they are given in response to a child's signals of hunger, engaging the child in a manner that makes eating/feeding a positive experience, and with a meal frequency and feeding methods that are suitable for the child's age
- **safe** – meaning that they are hygienically stored, and prepared and fed with clean hands, using clean utensils.

## Global targets – *Comprehensive implementation plan on maternal, infant and young child nutrition*

In yet another commitment to address global nutrition challenges, the World Health Assembly endorsed a *Comprehensive implementation plan on maternal, infant and young child nutrition* in 2012. The plan includes six global targets to identify priority areas and catalyse global change. Global target 5 increases the target for exclusive breastfeeding in the first 6 months, from the estimated global average of 37% during the period 2006–2010 to 50% by 2025.

# Notes

# Notes (contd)

# Notes (contd)

# Session 2

## Introduction to the *WHO child growth standards*

### Objectives

After completing this session, participants will be able to:

- describe the significance of the *WHO child growth standards*
- list the benefits of the *WHO child growth standards*

### Introduction

Now we will look at the *WHO child growth standards*.

### Development of the *WHO child growth standards*

The World Health Organization (WHO) developed growth standards based on a sample of children from six countries: Brazil, Ghana, India, Norway, Oman and the United States of America (USA). The WHO Multicentre Growth Reference Study (MGRS) was designed to provide data describing how children **should** grow, by including in the study's selection criteria certain recommended health behaviours (for example, breastfeeding, providing standard paediatric care and not smoking). The study followed term babies from birth to 2 years of age, with frequent observations in the first weeks of life; another group of children, aged 18 to 71 months, were measured once, and data from the two samples were combined to create the growth standards for birth to 5 years of age.

### The WHO Multicentre Growth Reference Study

The *WHO child growth standards* differ from many existing single-country references, which merely describe the size of children assumed to be healthy. By including children from many countries who were receiving recommended feeding and care, the Multicentre Growth Reference Study resulted in prescriptive standards for normal growth, as opposed to simply descriptive references.

The standards:

- show what growth can be achieved with recommended feeding and health care (e.g. immunizations, care during illness)
- can be used anywhere in the world, since the study also showed that children everywhere grow in similar patterns when their nutrition, heath and care needs are met.

### Benefits of the new growth standards

The new standards establish the breastfed infant as the model for normal growth and development. As a result, health policies and public support for breastfeeding will be strengthened. The new standards will help better identify stunted and overweight/obese children. New standards, such as for **body mass index** (BMI), are useful for measuring the increasing worldwide epidemic of **obesity**. Charts that show standard patterns of the expected growth rate over time enable health-care providers to identify children at risk of becoming undernourished or overweight early, rather than waiting until a problem level is reached.

### Gross motor milestones

In addition to standards for physical growth, the *WHO child growth standards* include six **gross motor-development milestones**: sitting without support, standing with assistance, hands-and-knees crawling, walking with assistance, standing alone and walking alone. All healthy children are expected to achieve these milestones during specified age ranges between 4 and 18 months. The expected age ranges for achieving these milestones (or "windows of achievement") are included in the WHO Boy's growth record and Girl's growth record provided with this course. This course, however, focuses on assessment of physical growth and does not provide training on assessing motor development.

# Notes

# Session 3

## Local infant and young child feeding situation

### Objectives

After completing this session, participants will be able to:

- describe the infant and young child feeding trends in the country
- state the current recommendations for feeding children from 0 up to 24 months of age

### Introduction

In this session, you will examine local data on infant and young child feeding practices.

### Good and poor practices in your experience

In the table below, there are some questions about infant feeding practices.
Next to each question there are boxes for three alternative answers: "few", "half", "most".
Choose the answer to each question that fits best with your experience, by putting a mark in the box.

| | Few | Half | Most |
|---|---|---|---|
| How many babies have immediate skin-to-skin contact? | | | |
| How many breastfeed within 1 hour after delivery? | | | |
| How many have other foods or drinks before they start breastfeeding? | | | |
| How many breastfeed exclusively for 6 months? | | | |
| How many have other foods or drinks before: | | | |
| 1 day? | | | |
| 1 month? | | | |
| 2 months? | | | |
| 3 months? | | | |
| 4 months? | | | |
| 6 months? | | | |
| How many continue to breastfeed for more than: | | | |
| 6 months? | | | |
| 12 months? | | | |
| 24 months? | | | |

| | Few | Half | Most |
|---|---|---|---|
| How many children start solid/semi-solid foods: | | | |
| Before 6 months of age? | | | |
| Between 6 and 8 months of age? | | | |
| After 8 months of age? | | | |
| How many children aged 6 up to 24 months: | | | |
| Receive an appropriate variety of foods?[1] | | | |
| Receive an appropriate frequency of foods?[2] | | | |
| Receive an appropriate amount of food for each meal?[3] | | | |
| Receive an appropriate consistency of foods?[4] | | | |

# Notes

[1] Children should receive foods from 4 or more out of 7 foods groups. The 7 foods groups are: (1) grains, roots and tubers, (2) legumes and seeds, (3) dairy products (milk, yogurt, cheese), (4) flesh foods (meat, poultry, fish, liver), (5) eggs, (6) vitamin-A rich fruits and vegetables (mango, papaya, passion fruit, oranges, dark green leaves, carrots, yellow sweet potato, pumpkin), (7) other fruits and vegetables.

[2] From 6 up to 9 months: 2–3 meals per day; depending on the child's appetite, 1–2 snacks may be offered. From 9 up to 12 months: 3–4 meals per day; depending on the child's appetite, 1–2 snacks may be offered. From 12 up to 24 months: 3–4 meals per day; depending on the child's appetite, 1–2 snacks may be offered.

[3] From 6 up to 9 months: start with 2–3 tablespoonfuls per feed, increasing gradually to ½ of a 250 mL cup. From 9 up to 12 months: ½ of a 250 mL cup/bowl. From 12 up to 24 months: ¾ to 1 250 mL cup/bowl.

[4] From 6 up to 9 months: start with thick porridge, well-mashed foods, continue with mashed family foods with finger foods that baby can pick up from 8 months. From 9 up to 12 months: finely chopped or mashed foods, and finger foods. From 12 up to 24 months: family foods, chopped or mashed if necessary.

# Notes (contd)

# Notes (contd)

# Session 4

## Local nutrition situation

### Objectives

After completing this session, participants will be able to:

- describe the nutrition trends in the country
- list the common nutritional problems in the country

### Introduction

In this session, we will look at the local nutrition situation.

### Good and poor practices in your experience

In the table below, there are some questions about the nutrition situation.

Next to each question there are boxes for three alternative answers: "few", "half", "most".

Choose the answer to each question that fits best with your experience, by putting a mark in the box.

| | Few | Half | Most |
|---|---|---|---|
| How many children aged under 5 years have acute severe malnutrition? | | | |
| How many children aged under 5 years have acute moderate malnutrition? | | | |
| How many children aged under 5 years are overweight/obese? | | | |
| How many women of childbearing age are overweight/obese? | | | |
| How many children aged under 5 years of age have anaemia? | | | |
| How many women of childbearing age have anaemia? | | | |
| How many children start solid/semi-solid foods at 6 months of age? | | | |

## Notes

# Notes (contd)

# MODULE 2

## Counselling skills

# SESSION 5

## Listening and 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 infant and young child feeding

## Introduction

**Counselling** is a way of working with people in which you try to understand how they feel, and help them to decide what they think is best to do in their situation. In this session, we will discuss mothers who are feeding young children and how they feel.

Counselling mothers about feeding their infants is not the only situation in which counselling is useful. Counselling skills are useful when you talk to patients or 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.

The first three sessions on counselling skills are about "listening and learning". A mother may not talk easily 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 less likely to "turn off" and say nothing.

## LISTENING AND LEARNING SKILLS

### Skill 1. Use helpful non-verbal communication

"**Non-verbal communication**" means showing your attitude through your posture, your expression, everything except through speaking. Helpful non-verbal communication makes a mother feel that you are interested in her, so it helps her to talk to you.

### Skill 2. Ask open questions

**Open questions** are very 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. They tell a mother the answer that you expect, and she can answer them with a "Yes" or "No". They usually start with words such as "Are you?", "Did he?", "Has he?", "Does she?"; for example: "Did you breastfeed your last baby?" If a mother says "Yes" to this question, you still do not know whether she breastfed exclusively, or whether she also gave some artificial feeds.

To start a conversation, general open questions are helpful; for example: "Tell me about your baby?"

To continue a conversation, a more specific open question may be helpful; for example: "How old is your baby now?"

Sometimes it is helpful to ask a closed question, to make sure about a fact; for example: "Are you giving him any other food or drink?"

If the mother says "Yes", you can follow up with an open question, to learn more; for example: "What made you decide to do that?"

## Skill 3. Use responses and gestures that show interest

Another way to encourage a mother to talk is to use gestures such as nodding and smiling, and simple responses such as "Mmm", or "Aha". They show a mother that you are interested in her.

## Skill 4. Reflect back what the mother/caregiver says

"**Reflecting back**" means repeating back what a mother has said to you, to show that you have heard, and to encourage her to say more. Try to say it in a slightly different way. For example, if a mother says: "I don't know what to give my child, she refuses everything", you could say: "Your child is refusing all the food you offer her?"

## Skill 5. Empathize – show that you understand how the mother/caregiver feels

**Empathy** or **empathizing** means showing that you understand how a person feels.

For example, if a mother says: "My baby wants to feed very often and it makes me **feel so tired**", you could say: "You are **feeling very tired** all the time then?"

This shows that you understand that she feels tired, so you are empathizing.

If you respond with a factual question, for example, "How often is he feeding? What else do you give him?", you are not empathizing.

## Skill 6. Avoid using words that sound judging

"**Judging words**" are words such as: right, wrong, well, badly, good, enough, properly. If you use these words when you ask questions, you may make a mother feel that she is wrong, or that there is something wrong with her baby. However, sometimes you need to use the "good" judging words to build a mother's confidence (see SESSION 8: BUILDING CONFIDENCE AND GIVING SUPPORT).

## HELPFUL NON-VERBAL COMMUNICATION

- Keep your head level with the mother/caregiver
- Pay attention
- Remove physical barriers
- Take time/allow the mother or caregiver time to talk
- Use appropriate touch

## LISTENING AND LEARNING SKILLS

1. Use helpful non-verbal communication
2. Ask open questions
3. Use responses and gestures that show interest
4. Reflect back what the mother/caregiver says
5. Empathize – show that you understand how the mother/caregiver feels
6. Avoid using words that sound judging

# Notes

# Notes (contd)

# Session 6

## Listening and learning: exercises 1



### Introduction

You will now practise the six LISTENING AND LEARNING SKILLS that you learnt about in Session 5.

EXERCISES 6.A to 6.C. are individual written exercises.

- For each exercise, read the instructions HOW TO DO THE EXERCISE and the EXAMPLE of what do do.
- Then write your answers in the section that says TO ANSWER.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer.
- Trainers will give feedback individually as you do the exercises, and will give you Answer sheets at the end of the session.

EXERCISE 6.D. is a group exercise on judging words.

### EXERCISE 6.A ASKING OPEN QUESTIONS

#### How to do the exercise:

**Questions 1–4** are "closed" and it is easy to answer "yes" or "no".

Write a new "open" question, which requires the mother to tell you more.

#### Example:

| "Closed" question | "Open" question |
|---|---|
| Do you breastfeed your baby? | How are you feeding your baby? |

#### To answer:

| "Closed" questions | "Open" questions |
|---|---|
| 1. Does your baby sleep with you? | |
| 2. Are you often away from your baby? | |
| 3. Does Sara eat porridge? | |
| 4. Do you give fruit to your child often? | |

## Exercise 6.B Reflecting back what a mother/caregiver says

### How to do the exercise:

Statements 1–3 are some things that mothers might tell you.

Underneath statements 1–3 are three responses. Mark the response that "reflects back" what the statement says. For statement 4, make up your own response that "reflects back" what the mother says.

### Example:

"My mother says that I don't have enough milk."

| | |
|---|---|
| | a. Do you think you have enough? |
| | b. Why does she think that? |
| ✓ | c. She says that you have a low milk supply? |

### To answer:

1. "Mika does not like to take thick porridge."

| | |
|---|---|
| | a. Mika does not seem to enjoy thick foods? |
| | b. What foods have you tried? |
| | c. It is good to give Mika thick foods as he is over 6 months old. |

2. "He doesn't seem to want to suckle from me."

| | |
|---|---|
| | a. Has he had any bottle feeds? |
| | b. How long has he been refusing? |
| | c. He seems to be refusing to suckle? |

3. "I tried feeding her from a bottle, but she spat it out."

| | |
|---|---|
| | a. Why did you try using a bottle? |
| | b. She refused to suck from a bottle? |
| | c. Have you tried to use a cup? |

4. "My husband says our baby is old enough to stop breastfeeding now."

## Exercise 6.C Empathizing – showing that you understand how the mother/caregiver feels

### How to do the exercise:

Statements 1–4 are things that mothers might say.

Underneath statements 1–4 are three responses that you might make.

Underline the words in the mother's statement that show something about how she feels. Mark the response that is most empathetic.

For stories 5 and 6, underline the feeling words, then make up your own empathizing response.



### Example:

My baby wants to feed so often at night that I feel exhausted.

| | |
|---|---|
| | a. How many times does he feed altogether? |
| | b. Does he wake you every night? |
| ✓ | c. You are really tired with the night feeding. |

### To answer:

1. James has not been eating well for the past week. I am very worried about him.

| | |
|---|---|
| | a. You are anxious because James is not eating? |
| | b. What did James eat yesterday? |
| | c. Children often have times when they do not eat well. |

2. My breast milk looks so thin – I am afraid it is not good.

| | |
|---|---|
| | a. That's the foremilk – it always looks rather watery. |
| | b. You are worried about how your breast milk looks? |
| | c. Well, how much does the baby weigh? |

3. I feel there is no milk in my breasts, and my baby is a day old already.

| | |
|---|---|
| | a. You are upset because your breast milk has not come in yet? |
| | b. Has she started suckling yet? |
| | c. It always takes a few days for breast milk to come in. |

4. I am anxious that if I breastfeed I will pass HIV on to my baby.

| | |
|---|---|
| | a. I can see you are worried about breastfeeding your baby. |
| | b. Would you like me to explain to you about how the HIV virus is passed from mothers to babies? |
| | c. What have you heard about other options for feeding your baby? |

5. Angelique brings Sammy to see you. He is 9 months old. Angelique is worried. She says: "Sammy is still breastfeeding and I feed him three other meals a day, but I am so upset, he still looks so thin".

*What would you say to Angelique to empathize with how she feels?*

6. Catherine comes to the clinic. She is pregnant with her first baby and has found out she has HIV. She says: "I am so frightened that my mother-in-law might find out".

*What would you say to Catherine to empathize with how she feels?*

## Exercise 6.D Translating judging words

### Judging words

| Well | Normal | Enough | Problem |
|---|---|---|---|
| good | correct | adequate | fail |
| bad | proper | inadequate | failure |
| badly | right | satisfied | succeed |
| | wrong | plenty of | success |
| | | sufficient | |

### Using and avoiding judging words

| English | Local language | Judging question | Non-judging question |
|---|---|---|---|
| Well | . . . . . | Does he suckle well? | How is he suckling? |
| Normal | . . . . . | Are his stools normal? | What are his stools like? |
| Enough | . . . . . | Is he gaining enough weight? | How is your baby growing? |
| Problem | . . . . . | Do you have any problems breastfeeding? | How is breastfeeding going for you? |

# Notes

# Notes (contd)

# Session 7

## Listening and learning: exercises 2 – breastfeeding



### Introduction

You will now practise the six LISTENING AND LEARNING SKILLS that you learnt about in Session 5, with an emphasis on breastfeeding.

EXERCISES 7.A to 7.C are individual written exercises.

- For each exercise, read the instructions HOW TO DO THE EXERCISE and the EXAMPLE of what to do.
- Then write your answers in the section that says TO ANSWER.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer.
- Trainers will give feedback individually as you do the exercises, and will give you Answer sheets at the end of the session.

EXERCISE 7.D is a group exercise on judging words.

### EXERCISE 7.A ASKING OPEN QUESTIONS

#### How to do the exercise:

Questions 1–4 are "closed" and it is easy to answer "yes" or "no".

Write a new "open" question, which requires the mother to tell you more.

#### Example:

| "Closed" question | "Open" question |
|---|---|
| Do you breastfeed your baby? | *How are you feeding your baby?* |

#### To answer:

| "Closed" questions | "Open" questions |
|---|---|
| 1. Does your baby sleep with you? | |
| 2. Are you often away from your baby? | |
| 3. Are your nipples sore? | |

### 4. Optional short story exercise

(To do if you have time, or need more practice)

Joseph and Mabel bring 3-month-old Johnny to the clinic. They want to talk to you because he is not gaining weight.

Write two open questions that you would ask Joseph and Mabel. The questions must be ones that they cannot say just "yes" or "no" to.

## EXERCISE 7.B REFLECTING BACK WHAT A MOTHER/CAREGIVER SAYS

### How to do the exercise:

Statements 1–3 are some things that mothers might tell you.

Underneath statements 1–3 are three responses. Mark the response that "reflects back" what the statement says. For statements 4 and 5 make up your own response that "reflects back" what the mother says.

### Example:

My mother says that I don't have enough milk.

| | |
|---|---|
| | a. Do you think you have enough? |
| | b. Why does she think that? |
| ✓ | c. She says that you have a low milk supply? |

### To answer:

1. My baby is passing a lot of stools – sometimes eight in a day.

| | |
|---|---|
| | a. He is passing many stools each day? |
| | b. What are the stools like? |
| | c. Does this happen every day, or only in some days? |

2. He doesn't seem to want to suckle from me.

| | |
|---|---|
| | a. Has he had any bottle feeds? |
| | b. How long has he been refusing? |
| | c. He seems to be refusing to suckle? |

3. I tried feeding her from a bottle, but she spat it out.

| | |
|---|---|
| | a. Why did you try using a bottle? |
| | b. She refused to suck from a bottle? |
| | c. Have you tried to use a cup? |

For statements 4 and 5, make up your own responses that "reflect back" what the mother says.

4. Sometimes he doesn't pass a stool for 3 or 4 days.

5. My husband says our baby is old enough to stop breastfeeding now.

## 6. Optional short story exercise

(To do if you have time, or need more practice)

You meet Cora in the market with her 2-month-old baby. You say how well the baby looks, and ask how she and the baby are doing. She says "Oh, we're doing fine. But she needs a bottle feed in the evening".

*What do you say, to reflect back what Cora says?*

## EXERCISE 7.C EMPATHIZING – SHOWING THAT YOU UNDERSTAND HOW THE MOTHER/CAREGIVER FEELS

### How to do the exercise:

Statements 1–4 are things that mothers might say.

Underneath statements 1–4 are three responses that you might make.

Underline the words in the mother's statement which show something about how she feels. Mark the response that is most empathetic.

For statements 5 and 6 and stories 7 and 8, underline the feeling words, then make up your own empathizing response.

### Example:

My baby wants to feed so often at night that I feel exhausted.

| | |
|---|---|
| | a. How many times does he feed altogether? |
| | b. Does he wake you every night? |
| ✓ | c. You are really tired with the night feeding. |

### To answer:

1. James has not been eating well for the past week. I am very worried about him.

| | |
|---|---|
| | a. You are anxious because James is not eating? |
| | b. What did James eat yesterday? |
| | c. Children often have times when they do not eat well. |

2. My breast milk looks so thin – I am afraid it is not good.

| | |
|---|---|
| | a. That's the foremilk – it always looks rather watery. |
| | b. You are worried about how your breast milk looks? |
| | c. Well, how much does the baby weigh? |

3. I feel there is no milk in my breasts, and my baby is a day old already.

| | |
|---|---|
| | a. You are upset because your breast milk has not come in yet? |
| | b. Has he started suckling yet? |
| | c. It always takes a few days for breast milk to come in. |

4. I am anxious that if I breastfeed I will pass HIV on to my baby.

| | |
|---|---|
| | a. I can see you are worried about breastfeeding your baby. |
| | b. Would you like me to explain to you about how the HIV virus is passed from mothers to babies? |
| | c. What have you heard about other options for feeding your baby? |

5. My breasts leak milk all day at work – it is so embarrassing.

6. I have bad pains in my stomach when he is breastfeeding.

7. Edna brings baby Sammy to see you. She looks worried. She says "Sammy breastfeeds very often, but he still looks so thin!"

*What would you say to Edna to empathize with how she feels?*

8. Catherine comes to the clinic. She is pregnant with her first baby and has found out she has HIV. She says: "I am frightened that my mother-in-law might find out".

*What would you say to Catherine to empathize with how she feels?*

## EXERCISE 7.D TRANSLATING JUDGING WORDS

### JUDGING WORDS

| Well | Normal | Enough | Problem |
|---|---|---|---|
| good | correct | adequate | fail |
| bad | proper | inadequate | failure |
| badly | right | satisfied | succeed |
| | wrong | plenty of | success |
| | | sufficient | |

### USING AND AVOIDING JUDGING WORDS

| English | Local language | Judging question | Non-judging question |
|---|---|---|---|
| Well | . . . . . | Does he suckle well? | How is he suckling? |
| Normal | . . . . . | Are his stools normal? | What are his stools like? |
| Enough | . . . . . | Is he gaining enough weight? | How is your baby growing? |
| Problem | . . . . . | Do you have any problems breastfeeding? | How is breastfeeding going for you? |

# Notes

# Notes (contd)

# Session 8

## Building confidence and giving support



## Objectives

After completing this session, participants will be able to:

- list the six SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT
- give an example of each skill
- demonstrate the appropriate use of the skills when counselling on infant and young child feeding

## Introduction

This counselling skills session is about building confidence and giving support. A mother easily loses confidence in herself. This may lead her to feel that she is a failure and to give in to pressure from family and friends. You may need these 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, with how she is feeding her child, or with her breast milk 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.

## SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT

### Skill 1. Accept what a mother/caregiver thinks and feels

Sometimes a mother has a **mistaken idea** that you do not agree with. If you disagree with her, or criticize, you make her feel that she is wrong and she may not want to say any more to you. This reduces her confidence. If you agree with her, it is difficult later to suggest something different.

It is more helpful to **accept** what she thinks. Accepting means responding in a neutral way, and not agreeing or disagreeing. Reflecting back and using responses and gestures that show interest are both useful ways to show acceptance, as well as being useful listening and learning skills.

Sometimes a mother feels very upset about something that you know is not a serious problem. If you say something such as "Don't worry, there is nothing to worry about!", you make her feel that she is wrong to feel the way that she does. This makes her feel that you do not understand, and it reduces her confidence. If you accept that she is upset, it makes her feel that it is alright to feel the way she does, so it does not reduce her confidence. Empathizing is one useful way to show acceptance of how a mother feels.

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

As health workers, we are trained to look for problems. Often this means we see only what we think people are doing wrong, and we try to correct them. As counsellors, we must learn to look for and recognize what mothers and babies do right. 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.

## Skill 3. Give practical help

Sometimes, practical assistance is more effective in helping the mother than speaking. For example:

- when a mother feels tired or dirty or uncomfortable
- when she is hungry or thirsty
- when she has had a lot of information already
- when she has a clear practical problem.

Some ways to give practical help are these:

- help to make her clean and comfortable
- give her a drink, or something to eat
- hold the baby yourself while she gets comfortable, or washes, or goes to the toilet.

Practical help also includes showing caregivers how to prepare feeds, rather than just giving them a list of instructions. It further includes practical help with breastfeeding, such as helping a mother with positioning and attaching, expressing breast milk, relieving engorgement or preparing complementary feeds.

## Skill 4. Give a little, relevant information

Relevant information is information that is useful for a mother **now**.

When you give a mother information, remember these points:

- tell her things that she can do today, not in a few weeks' time
- explaining the reason for a 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 she is tired and has already received a lot of advice
- give information in a positive way, so that it does not sound critical; this is especially important if you want to correct a mistaken idea
- wait until you have built her confidence, by accepting what she says and praising what she and her baby do right; you do not need to give new information or to correct a mistaken idea immediately.

## Skill 5. Use simple language

Use simple familiar terms to explain things to mothers. Remember that most people do not understand the technical terms that health workers use.

## Skill 6. Make one or two suggestions, not commands

Be careful not to tell or command a mother to do something. This does not help her to feel confident.

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

## Skills for building confidence and giving support

1. Accept what a mother/caregiver thinks and feels
2. Recognize and praise what a mother/caregiver and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

## Counselling skills checklist

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

#### Use Listening and learning skills:

☐ Keep the head level with mother/parent/caregiver?

☐ Pay attention (eye contact)?

☐ Remove barriers (tables and notes)?

☐ Take time? Allow the mother/caregiver time to talk?

☐ Use appropriate touch?

☐ Ask open questions?

☐ Use responses and gestures that showed interest?

☐ Reflect back what the mother/caregiver said?

☐ Empathize – showing that he or she understood how the mother/caregiver feels?

☐ Avoid using words that sound judging?

#### Use Skills for building confidence and giving support:

☐ Accept what the mother/caregiver thinks and feels?

☐ Recognize and praise what the mother/caregiver and baby are doing right?

☐ Give practical help?

☐ Give a little, relevant information?

☐ Use simple language?

☐ Make one or two suggestions, not commands?

# Notes

# Session 9

## Building confidence and giving support: exercises 1 – breastfeeding



## Introduction

You will now practise the six SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT that you learnt about in Session 8. The examples in this session are mostly about infants who are breastfeeding.

- EXERCISES 9.A to 9.F are individual written exercises.
- For each exercise, read the instructions **How to do the exercise** and the **Example** of what to do.
- Then write your answers in the section that says **To answer**.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer.
- Trainers will give feedback individually as you do the exercises and will give you Answer sheets at the end of the session.

### EXERCISE 9.A ACCEPTING WHAT A MOTHER THINKS

#### How to do the exercise:

Statements 1 and 2 are mistaken ideas that mothers might hold.

Beside each mistaken idea are three responses. One agrees with the idea, one disagrees and one accepts the idea, without either agreeing or disagreeing.

Below each response write whether the response agrees, disagrees or accepts.

#### Example:

Mother of a 6-month-old baby:"My baby has diarrhoea so it is not good to breastfeed now."

| | | |
|---|---|---|
| *You do not like to give him breast milk just now?* | *It is quite safe to breastfeed a baby when he has diarrhoea.* | *It is often better to stop breastfeeding a baby when he has diarrhoea.* |
| **Accepts** | **Disagrees** | **Agrees** |

#### To answer:

1. Mother of a 1-month-old baby: "I give him drinks of water, because the weather is so hot now."

| | | |
|---|---|---|
| *Oh, that is not necessary! Breast milk contains plenty of water.* | *Yes, babies may need extra drinks of water in this weather.* | *You feel that he needs drinks of water sometimes?* |

2. Mother of a 9-month-old baby: "I have not been able to breastfeed for two days, so my milk is sour."

| | | |
|---|---|---|
| *Breast milk is not very nice after a few days.* | *You are worried that your breast milk may be sour?* | *But milk never goes sour in the breast!* |

## How to do the exercise:

Statements 3–5 are some more mistaken ideas that mothers might hold.
Make up one response that accepts what the mother says, without disagreeing or agreeing.

## Example:

| Mother of a 1-week-old baby: "I don't have enough milk because my breasts are so small". |
|---|
| *Mm. Mothers often worry about the size of their breasts.*<br><br>*I see you are worried about the size of your breasts.*<br><br>*Ah ha.* |

## To answer:

| 3. "The first milk is not good for a baby – I cannot breastfeed until it has gone." |
|---|
| |

| 4. "I don't let her suckle for more than 10 minutes, because it would make my nipples sore." |
|---|
| |

| 5. "I need to give him formula milk now that he is 2 months old. My breast milk is not enough for him now." |
|---|
| |

## EXERCISE 9.B ACCEPTING WHAT A MOTHER FEELS

### How to do the exercise:

After the stories 1 and 2 below, there are three responses.

Mark with a ✓ the response that shows acceptance of how the mother feels.

### Example:

Purla's baby boy has a cold and a blocked nose, and is finding it difficult to breastfeed. As Purla tells you about it, she bursts into tears.

Mark with a ✓ the response that shows that you accept how Purla feels.

| | |
|---|---|
| | a. Don't worry – he is doing very well. |
| | b. You don't need to cry – he will soon be better. |
| ✓ | c. It's upsetting when a baby is ill, isn't it? |

### To answer:

**Story 1**

Marion is in tears. She says that her breasts have become soft again, so her milk must be less, but the baby is only 3 weeks old.

| | |
|---|---|
| | a. Don't cry – I'm sure you still have plenty of milk. |
| | b. You are really upset about this, I know. |
| | c. Breasts often become soft at this time – it doesn't mean that you have less milk! |

**Story 2**

Dora is very bothered. Her baby sometimes does not pass a stool for 1 or 2 days. When she does pass a stool, she pulls up her knees and goes red in the face. The stools are soft and yellowish brown.

| | |
|---|---|
| | a. You needn't be so bothered – this is quite normal for babies. |
| | b. Some babies don't pass a stool for 4 or 5 days. |
| | c. It really bothers you when she does not pass a stool, doesn't it? |

## EXERCISE 9.C PRAISING WHAT A MOTHER AND BABY ARE DOING RIGHT

### How to do the exercise:

For story 3 below, there are three responses. They are all things that you might want to say to the mother.

Mark with a tick the response that praises what the mother and baby are doing right, to build the mother's confidence.

For story 4 make up your own response to praise the mother.

### Example:

A mother is breastfeeding her 3-month-old baby, and giving drinks of fruit juice. The baby has slight diarrhoea.

Mark the response that praises what she is doing right.

| | |
|---|---|
| | a. You should stop the fruit juice – that's probably what is causing the diarrhoea. |
| ✓ | b. It is good that you are breastfeeding – breast milk should help him to recover. |
| | c. It is better not to give babies anything but breast milk until they are about 6 months old. |

### To answer:

**Story 3**

The mother of a 3-month-old baby says that he is crying a lot in the evenings, and she thinks that her milk supply is decreasing. The baby gained weight well last month.

| | |
|---|---|
| | a. Many babies cry at that time of day – it is nothing to worry about. |
| | b. He is growing very well – and that is on your breast milk alone. |
| | c. Just let him suckle more often – that will soon build up your milk supply. |

**Story 4**

A 4-month-old baby is completely fed on replacement feeds from a bottle. She has diarrhoea. The growth chart shows that she weighed 3.5 kg at birth, and that she has only gained 200 g in the last 2 months. The bottle smells very sour.

## EXERCISE 9.D GIVING A LITTLE, RELEVANT INFORMATION

### How to do the exercise:

Below is a list of six mothers with babies of different ages.

Beside them are six pieces of information (a, b, c, d, e and f) that those mothers may need, but the information is not opposite the mother who needs it most.

Match the piece of information with the mother and baby in the same set for whom it is **most relevant at that time**.

After the description of each mother there are six letters.

Put a circle round the letter that corresponds to the information that is most relevant for her. As an example, the correct answer for Mother 1 is already marked in brackets.

### To answer:

| | | |
|---|---|---|
| 1. Mother returning to work | a b c d (e) f | a. Foremilk normally looks watery, and hindmilk is whiter |
| 2. Mother with a 12-month-old baby | a b c d e f | b. Exclusive breastfeeding is best until a baby is 6 months old |
| 3. Mother who thinks that her milk is too thin | a b c d e f | c. More suckling makes more milk |
| 4. Mother who thinks that she does not have enough breast milk | a b c d e f | d. Colostrum is all that a baby needs at this time |
| 5. Mother with a 2-month-old baby who is exclusively breastfed | a b c d e f | e. Night breastfeeds are good for a baby and help to keep up the milk supply |
| 6. A newly delivered mother who wants to give her baby prelacteal feeds | a b c d e f | f. Breastfeeding is valuable for 2 years or more |

## EXERCISE 9.E USING SIMPLE LANGUAGE

### How to do the exercise:

Below are two pieces of information that you might want to give to mothers.

The information is correct, but it uses technical terms that a mother who is not a health worker might not understand.

Rewrite the information in simple language that a mother could easily understand.

### Example:

| **Information:** | **Using simple language:** |
|---|---|
| Colostrum is all that a baby needs in the first few days. | *The first yellowish milk that comes is exactly what a baby needs for the first few days.* |

### To answer:

| **Information:** | **Using simple language:** |
|---|---|
| 1. Exclusive breastfeeding is best up to 6 months of age. | |
| 2. To suckle effectively, a baby needs to be well attached to the breast. | |

## Exercise 9.F Making one or two suggestions, not commands

### How to do the exercise:

Below are some commands that you might want to give to a breastfeeding mother.

Rewrite the commands as suggestions. In your answer, you only need to give ONE answer.

The box below gives some examples of ways to make suggestions, not commands. You may find this helpful when doing the exercises.



### Making suggestions, not commands

**Commands** use the imperative form of verbs (give, do, bring) and words such as *always, never, must, should*.

**Suggestions** include:

- Have you considered…?
- Would it be possible…?
- What about trying… to see if it works for you?
- Would you be able to?
- Have you thought about…? Instead of…?
- You could choose between… and… and…
- It may not suit you, but some mothers… a few women…
- Perhaps… might work.
- Usually… Sometimes… Often…

### Example:

| Command | Suggestions |
|---|---|
| Keep the baby in bed with you so that he can feed at night! | *It might be easier to feed him at night if he slept in bed with you.*<br>*Would it be easier to feed him at night if he slept with you?* |

### To answer:

| Command | Suggestions |
|---|---|
| Do not give your baby any drinks of water or glucose water, before she is at least 6 months old! | |
| Feed him more often, whenever he is hungry, then your milk supply will increase! | |

# Notes

# Session 10

## Building confidence and giving support: exercises 2 – complementary feeding



## Introduction

You will now practise the six SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT that you learnt about in Session 8. The examples in this session are mostly about complementary feeding of children aged 6 up to 24 months.

- EXERCISES 10A to 10F are individual written exercises.
- For each exercise, read the instructions **How to do the exercise** and the **Example** of what to do.
- Then write your answers in the section that says **To answer**.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer.
- Trainers will give feedback individually as you do the exercises and will give you Answer sheets at the end of the session.

### EXERCISE 10.A ACCEPTING WHAT A MOTHER THINKS

#### How to do the exercise:

Statements 1 and 2 are mistaken ideas that mothers might hold.

Beside each mistaken idea are three responses. One agrees with the idea, one disagrees and one accepts the idea, without either agreeing or disagreeing.

Beside each response write whether the response agrees, disagrees or accepts.

Mother of a healthy 19-month- old baby whose weight is on the median: "I am worried that my child will become a fat adult so I will stop giving him milk."

| | | |
|---|---|---|
| *You are worried about giving him milk?* | *It is important that children have some milk in their diet until they are at least 2 years of age.* | *Yes, fat babies tend to turn into fat adults.* |
| **Accepts** | **Disagrees** | **Agrees** |

#### To answer:

1. Mother of a 7-month-old baby: "My child is not eating any food that I offer so I will have to stop breastfeeding so often. Then he will be hungry and will eat the food."

| | | |
|---|---|---|
| *Oh, no, you must not give him less breast milk. That is a bad idea.* | *I see...* | *Yes, sometimes babies do get full up on breast milk?* |

| 2. Mother of a 12-month-old child: "My baby has diarrhoea so I must stop giving him any solids." | | |
|---|---|---|
| *Yes, often foods can make the diarrhoea worse.* | *You are worried about giving foods at the moment?* | *But solids help a baby to grow and gain weight again – you must not stop them now.* |

## How to do the exercise:

Statements 3 and 4 are some more mistaken ideas that mothers might hold.

Make up one response that accepts what the mother says, without disagreeing or agreeing.

## To answer:

| 3. "My neighbour's child eats more than my child and he is growing much bigger. I must not be giving my child enough food." |
|---|
| |

| 4. "I am worried about giving my 1-year-old child family food in case she chokes." |
|---|
| |

## Exercise 10.B Accepting what a mother FEELS

## How to do the exercise:

After the stories 1 and 2 below, there are three responses.

Mark with a ✓ the response that shows acceptance of how the mother feels.

## Example:

Edith's baby boy has not gained much weight over the past 2 months. As Edith tells you about it, she bursts into tears.

Mark with a ✓ the response that shows that you accept how Edith feels.

| | |
|---|---|
| | a. Don't worry – I am sure he will gain weight soon. |
| | b. Shall we talk about what foods to give your baby? |
| ✓ | c. You're really upset about this aren't you? |

## To answer:

**Story 1**

Agnes is in tears. Her baby is refusing to eat vegetables and she is worried.

| | |
|---|---|
| | a. Don't cry – many children do not eat vegetables. |
| | b. You are really worried about this, I know. |
| | c. It is important that your baby eats vegetables for the vitamins he needs. |

**Story 2**

Susan is crying. Since starting complementary foods, her baby has developed a rash on her buttocks. The rash looks like a nappy rash.

| | |
|---|---|
| | a. Don't cry – it is not serious. |
| | b. Lots of babies have this rash – we can soon make it better. |
| | c. You are really upset about this rash, aren't you? |



## Exercise 10.C Praising what a mother and baby are doing right

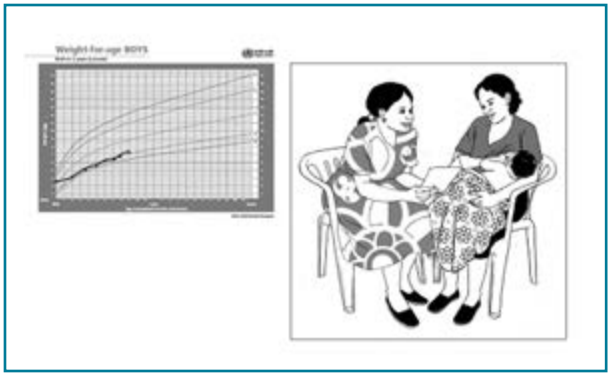
## How to do the exercise:

For stories 3 and 4 below, make up a response that praises something the mother and baby are doing right. In your answer, you only need to give ONE answer.

## Example:

| | |
|---|---|
| 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. | *It is good that you are offering him three meals and one snack per day.*<br>*Your child is growing well on the food you are giving him.* |

## To answer:

| | |
|---|---|
| **Story 3**<br>A 15-month-old child is breastfeeding and having thin porridge and sometimes tea and bread. She has not gained weight for 6 months, and is thin and miserable. | |
| **Story 4**<br>A 9-month-old baby and his mother have come to see you. Here is the growth chart of the baby.<br>  | |

## Exercise 10.D Giving a little, relevant information

### How to do the exercise:

Below is a list of four mothers with babies of different ages.

Beside them are four pieces of information (a, b, c and d) that those mothers may need; but the information is not opposite the mother who needs it most.

Match the piece of information with the mother and baby in the same set for whom it is most **relevant at that time.**

After the description of each mother there are four letters.

Put a circle round the letter that corresponds to the information that is most relevant for her.

### To answer:

| | | |
|---|---|---|
| 1. Mother with a 7-month old baby | a b c d | a. Children need extra water at this age – about 4–5 cups in a hot climate. |
| 2. Mother with a 15-month-old baby who is getting two meals per day | a b c d | b. Children who start complementary feeding at 6 completed months of age grow well. |
| 3. Mother with a 12-month-old baby who thinks that the baby is too old to breastfeed any longer | a b c d | c. Growing children of this age need 3–4 meals per day plus 1–2 snacks if hungry, in addition to milk. |
| 4. Mother of a non-breastfed child who is 11 months old | a b c d | d. Breastfeeding to at least 2 years of age helps a child to grow strong and healthy. |

## Exercise 10.E Using simple language

### How to do the exercise:

Below are two pieces of information that you might want to give to mothers.

The information is correct, but it uses technical terms that a mother who is not a health worker might not understand.

Rewrite the information in simple language that a mother could easily understand.

### Example:

| **Information:** | **Using simple language:** |
|---|---|
| Dark-green leaves and yellow-coloured fruit and vegetables are rich in vitamin A. | *Dark-green leaves and yellow-coloured vegetables help the child to have healthy eyes and fewer infections.* |

### To answer:

| **Information:** | **Using simple language:** |
|---|---|
| 1. Breastfeeding beyond 6 months of age is good as breast milk contains absorbable iron, calories and zinc. | |
| 2. Non-breastfed children aged 14 months should receive protein, zinc and iron in appropriate quantities. | |

## Exercise 10.F Making one or two suggestions, not commands

### How to do the exercise:

Below are some commands that you might want to give to a breastfeeding mother.

Rewrite the commands as suggestions. In your answer, you only need to give ONE answer.

The box below gives some examples of ways to make suggestions, not commands. You may find this helpful when doing the exercises.



### Making suggestions, not commands

**Commands** use the imperative form of verbs (give, do, bring) and words such as *always, never, must, should*.

**Suggestions** include:

- Have you considered…?
- Would it be possible…?
- What about trying… to see if it works for you?
- Would you be able to?
- Have you thought about…? Instead of…?
- You could choose between… and…and…
- It may not suit you, but some mothers… a few women…
- Perhaps… might work.
- Usually… Sometimes… Often…

### Example:

| Command | Suggestions |
|---|---|
| "You must start complementary foods when your baby is 6 completed months old." | *Children who start complementary foods at 6 completed months grow well and are active and content.*<br>*Could you start some foods in addition to milk now that your baby is 6 completed months old?* |

### To answer:

| Command | Suggestions |
|---|---|
| "You must use thick foods." | |
| "Your child should be eating a full bowl of food by 1 year of age." | |

# Notes

# MODULE 3

## Breastfeeding

# Session 11

## Why breastfeeding is important 1

## Objectives

After completing this session, participants will be able to:

- state the advantages of exclusive breastfeeding
- list the risks of artificial feeding
- describe the main differences between breast milk and artificial milks

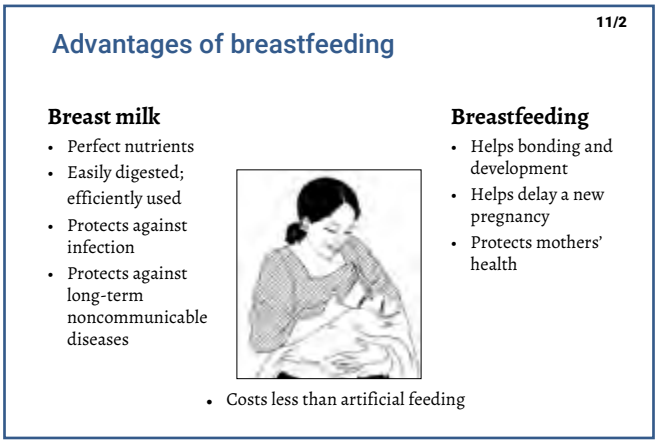
## Introduction

The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommend that infants should be exclusively breastfed for the first 6 months of life, starting within 1 hour after birth, and to continue breastfeeding up to 2 years of age or beyond. You need to understand why breastfeeding is important, so you can help to support mothers who may have doubts about the value of breast milk. You also need to know the differences between breast milk and artificial milks.

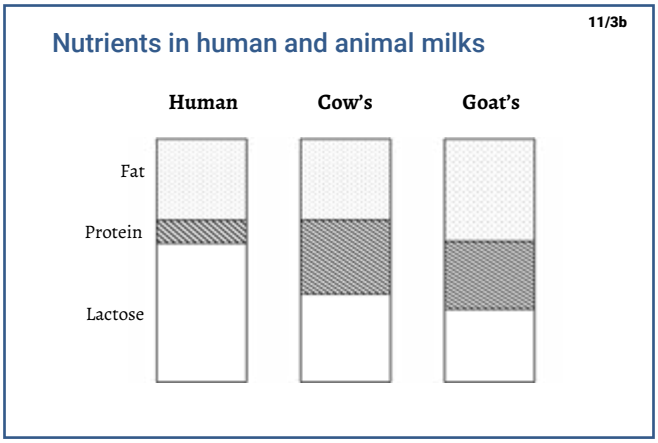


## The advantages of breastfeeding

This diagram summarizes the main advantages of breastfeeding. It is useful to think of the advantages of both breast milk (listed on the left) and breastfeeding (listed on the right).



# Nutrients in human and animal milks




**Formula milks** 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.

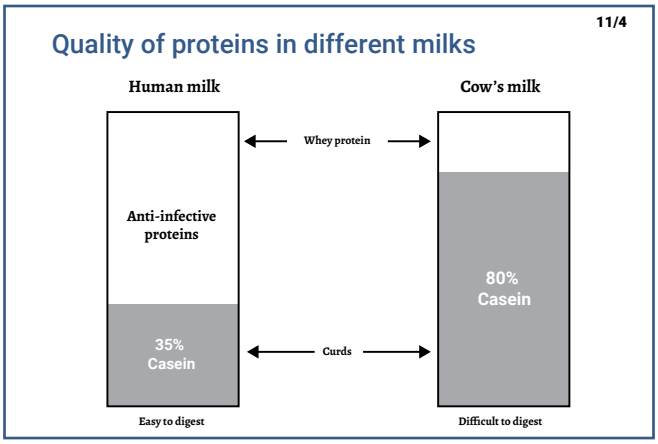
In order to understand the composition of formula milk, we need to understand the differences between animal and human milk and how animal milks need to be modified to produce formula milk.

This chart compares the nutrients in breast milk 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.

The animal milk contains more protein than human milk. 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 milk.

# The quality of proteins in different milks



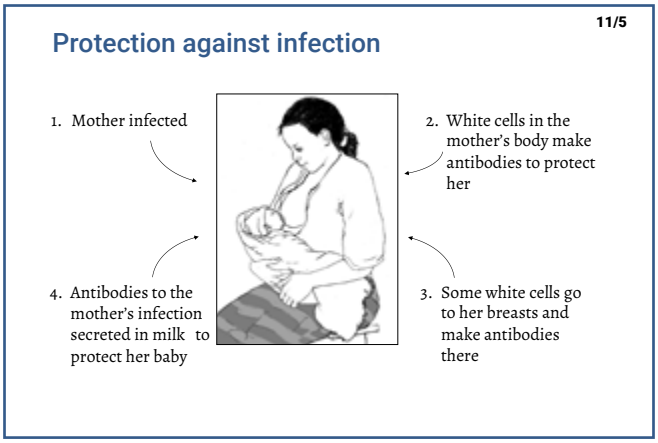

The protein in different milks varies in quality, as well as in quantity. While the quantity of protein in cow's milk can be modified to make formula milk, the quality of proteins cannot be changed.

This chart shows that much of the protein in cow's milk is **casein**. Casein forms thick, indigestible curds in a baby's stomach.

Human milk contains more whey proteins. The **whey** proteins contain anti-infective proteins, which help to protect a baby against infection.

Artificially fed babies 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.

# Protection against infection




Breast milk contains white blood cells, and a number of anti-infective factors, which help to protect a baby against many infections. Breastfeeding protects babies against diarrhoeal and respiratory illness and also ear infections, meningitis and urinary tract infections.

This diagram shows that when a mother develops an infection (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), which are secreted in her breast milk to protect her baby (4).

So a baby should not be separated from their mother when she has an infection, because her breast milk protects the baby against the infection.

# Variations in the composition of breast milk

**Colostrum** is the special breast milk that women produce in the first few days after delivery. It is thick and yellowish or clear in colour. It contains more protein than mature milk.

**Mature milk** is the breast milk that is produced after a few days. The quantity becomes larger, and the breasts feel full, hard and heavy. Some people call this the breast milk "coming in".

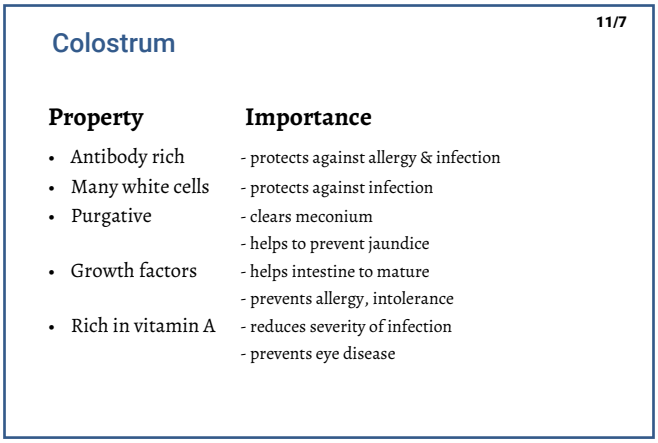
**Foremilk** is the milk that is produced early in a feed.

**Hindmilk** is the milk that is produced later in a feed.

Hindmilk looks whiter than foremilk, because it contains more fat. This fat provides much of the energy of a breastfeed. This is an important reason not to take a baby off a breast too quickly. The baby should be allowed to continue until they have had all that they want.

Foremilk looks thinner than hindmilk. It is produced in larger amounts, and provides plenty of protein, lactose and other nutrients. Because breastfeeding babies get large amounts of foremilk, they get all the water that they need from it. Babies do not need other drinks of water before they are 6 months old, even in a hot climate. If they satisfy their thirst on water, they may take less breast milk.

# Colostrum




Colostrum contains more antibodies and other anti-infective proteins than mature milk. It also 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 immunization 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 that 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. Artificial feeds given before a baby has colostrum are likely to cause **allergy** and infection.

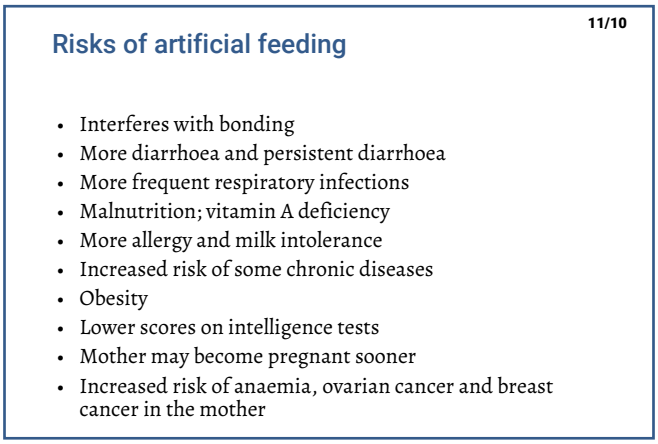
# Psychological benefits of breastfeeding

Breastfeeding helps a mother and baby to form a close, loving relationship, which makes mothers feel deeply satisfied emotionally. Close contact from immediately after delivery helps this relationship to develop. This process is called **bonding**.

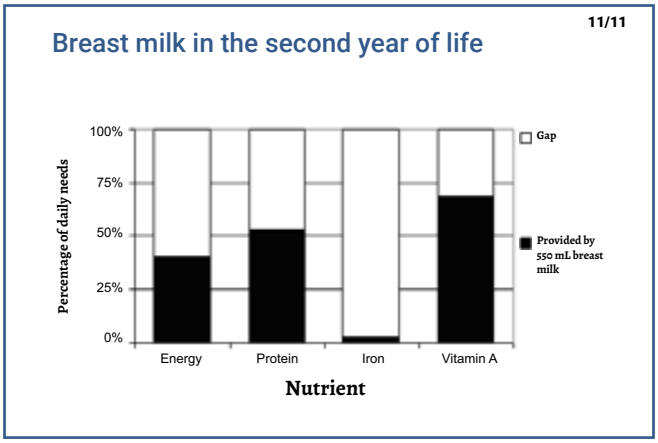
Babies tend to cry less if they are breastfed and may be more emotionally secure. Some studies suggest that breastfeeding may help a child to develop intellectually. Low-birth-weight babies fed breast milk in the first weeks of life perform better on intelligence tests in later childhood than children who are artificially fed.

# Risks of artificial feeding

This chart summarizes the main risks of artificial feeding.



## Breast milk in the second year of life




For the first 6 months of life, exclusive breastfeeding can provide all the nutrients and water that a normal, full-term baby needs. From the age of 6 months, breast milk is no longer sufficient by itself. In Session 1, we learnt that all babies need **complementary foods** from 6 months, in addition to breast milk. However, breast milk continues to be an important source of energy and high-quality nutrients beyond 6 months of age.

# Notes

# Notes (contd)

# Session 12

## How breastfeeding works 1

## Objectives

After completing this session, participants will be able to:

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

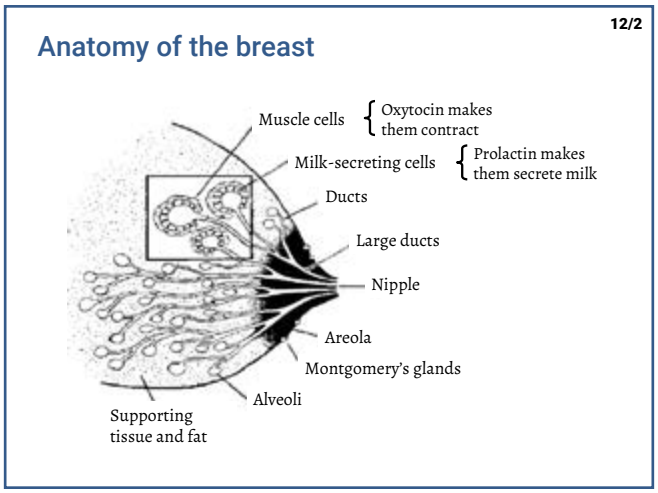
## Introduction

In this session, you will learn about the anatomy and physiology of breastfeeding. 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.



## Anatomy of the breast



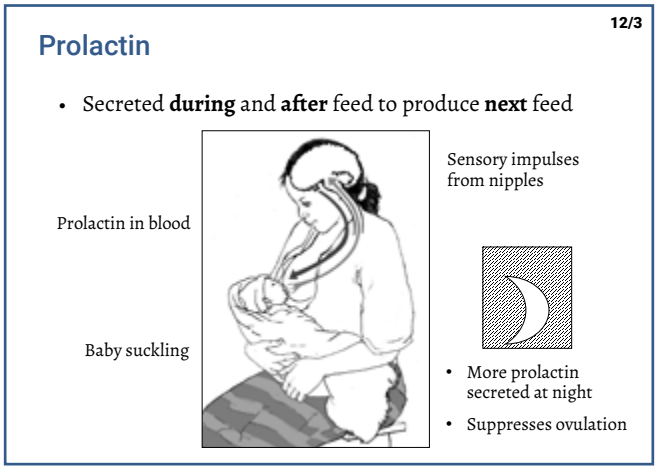

This diagram shows the anatomy of the breast.

The dark skin around the nipples is called the **areola**. In the areola are small glands called **Montgomery's glands**, which secrete an oily fluid to keep the skin healthy (clean and lubricated). 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 breast milk temporarily during the feed.

The secretory alveoli and ducts are surrounded by supporting tissue and fat. It is the fat and other tissue that give the breast its shape, and that make 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.

# 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. The more a baby **suckles**, the more milk the breasts produce.

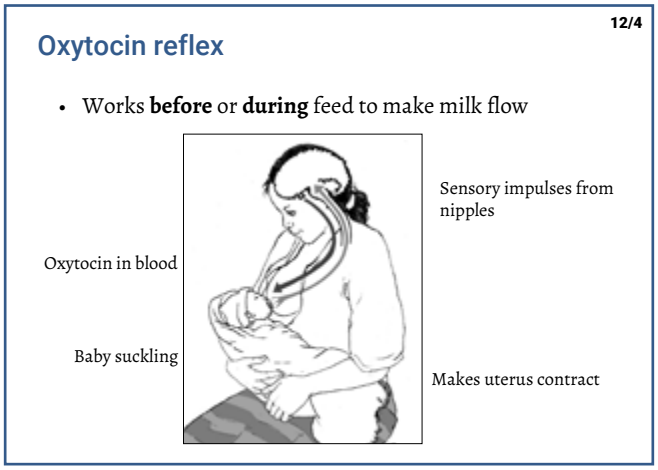
Most of the prolactin is in the blood about 30 minutes after the feed – so it makes the breast produce milk for the next feed. For this feed, the baby takes the milk that is already in the breast.

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.

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.

# Oxytocin



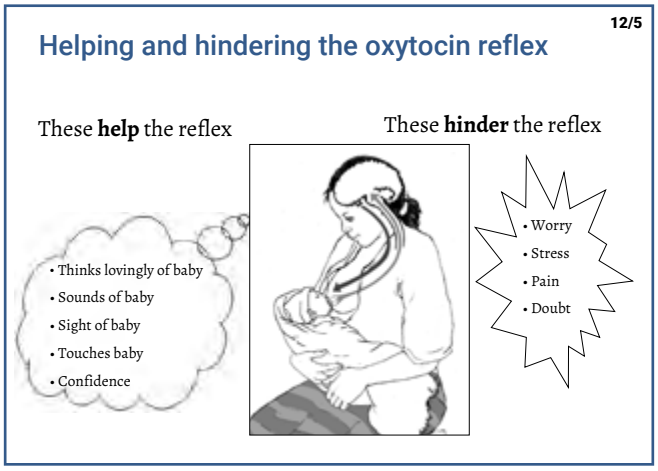

When a baby suckles, sensory impulses go from the nipple to the brain. In response, the pituitary gland at the base of the brain secretes the hormone oxytocin. Oxytocin goes in the blood to the breast, and makes the muscle cells around the alveoli contract.

This makes the milk that 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. It may seem as if the breasts have stopped producing milk. However, the breasts are producing milk, but it is not flowing out.

Oxytocin 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.

The oxytocin reflex is easily affected by a mother's thoughts and feelings. Good feelings, for example feeling pleased with her baby, or thinking lovingly of them, and feeling confident that her milk is the best for the baby, can help the oxytocin reflex to work and her milk to flow. Sensations such as touching or seeing her baby, or hearing the baby 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.



### Signs and sensations of an active oxytocin reflex

A mother 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 breast milk is flowing into the baby's mouth

## Control of breast-milk production within the breast

You may wonder why sometimes one breast stops making milk, while the other breast continues to make milk – although oxytocin and prolactin go equally to both breasts. The diagram that follows shows why.

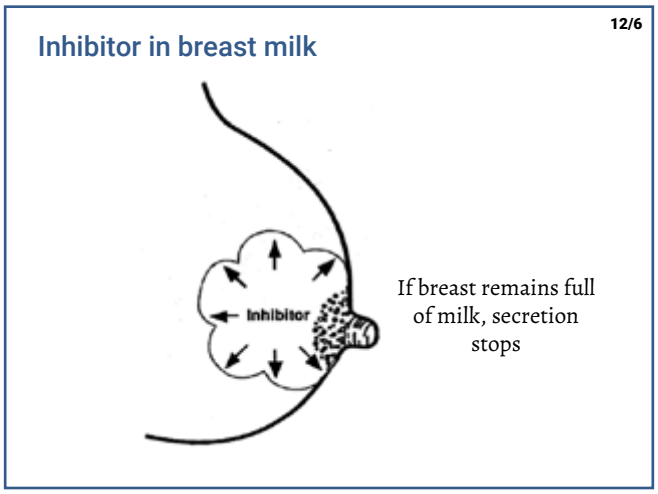
There is a substance in breast milk that can reduce or inhibit milk production. If a lot of milk is left in a breast, the inhibitor stops the cells from secreting any more. This helps to protect the breast from the harmful effects of being too full. This is obviously necessary if a baby dies or stops breastfeeding for some other reason. If breast milk 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.

It also helps you to understand why:

- For a breast to continue to make milk, the milk must be removed.
- If a baby cannot suckle from one or both breasts, the breast milk must be removed by **expression**, to enable production to continue.



# Attachment to the breast

12/8

### Good and poor attachment

What differences do you see?

1 2

12/9

### Attachment (outside appearance)

What differences do you see?

1 2

THE FOUR KEY SIGNS OF GOOD ATTACHMENT are:

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.



# Results of poor attachment

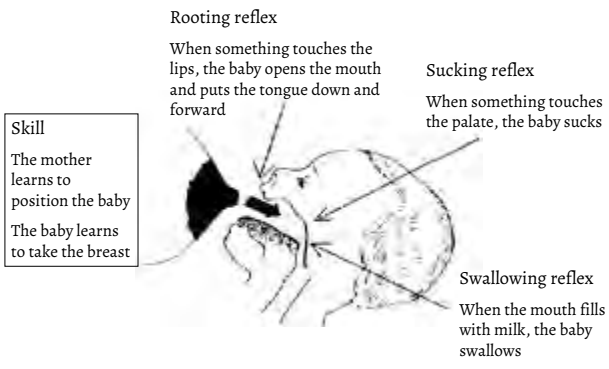
If a baby is poorly attached, and **"nipple sucks"**, it is painful for the mother. Poor attachment is the most important cause of sore nipples. As the baby sucks hard to try to get the milk, they pull the nipple in and out. This makes the nipple skin rub against their mouth. If a baby continues to suck in this way, it can damage the nipple skin and cause cracks (also known as **fissures**). As the baby does not remove breast milk effectively, the breasts may become **engorged**, and the baby may be unsatisfied and cry a lot. Eventually, if breast milk 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, all mothers need skilled help to position and attach their babies. Babies should not be given feeding bottles, especially before breastfeeding is established.

# Reflexes in the baby

12/11

### Reflexes in the 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, the baby opens their mouth and may turn the head to find it. The baby puts the tongue down and forward. This is the "rooting" reflex. It should normally be the breast that the baby is "rooting" for. When something touches a baby's palate, they start to suck it. This is the sucking reflex. When the baby's mouth fills with milk, they swallow. This is the swallowing reflex. All these reflexes happen automatically, without the baby having to learn to do them.

# Notes

# Session 13

## Assessing a breastfeed 1

### Objectives

After completing this session, participants will be able to:

- explain THE FOUR KEY SIGNS OF GOOD ATTACHMENT
- assess a breastfeed by observing a mother and baby
- identify a mother who may need help
- recognize signs of good and poor attachment and positioning
- explain the contents and arrangement of the JOB AID: BREASTFEED OBSERVATION

### Introduction

Assessing a breastfeed helps you to decide whether 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.

# Job aid: Breastfeed observation

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

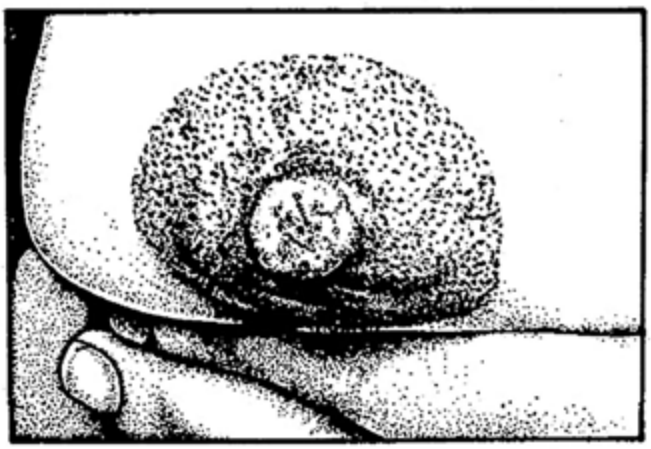
| Signs that breastfeeding is going well: | Signs of possible difficulty: |
|---|---|
| **GENERAL** | |
| **Mother:** | **Mother:** |
| ☐ Mother looks healthy | ☐ Mother looks ill or depressed |
| ☐ Mother relaxed and comfortable | ☐ Mother looks tense and uncomfortable |
| ☐ Signs of bonding between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

**Figs. 13.1** to **13.3** illustrate correct and incorrect ways to hold a baby for breastfeeding (**Fig. 13.1**), for how the mother should hold her breast (**Fig. 13.2**) and for how the baby attaches to the breast for feeding (**Fig. 13.3**).

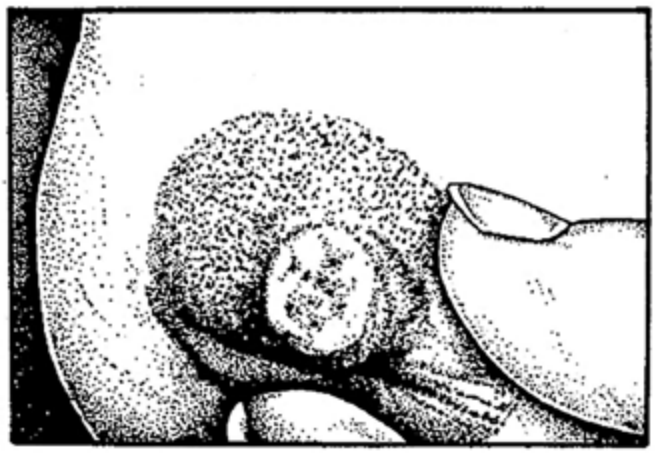
a. Baby's body close, facing breast
Face-to-face attention from mother

b. Baby's body away from mother, neck twisted
No mother/baby eye contact

**Fig. 13.1** How does the mother hold her baby?



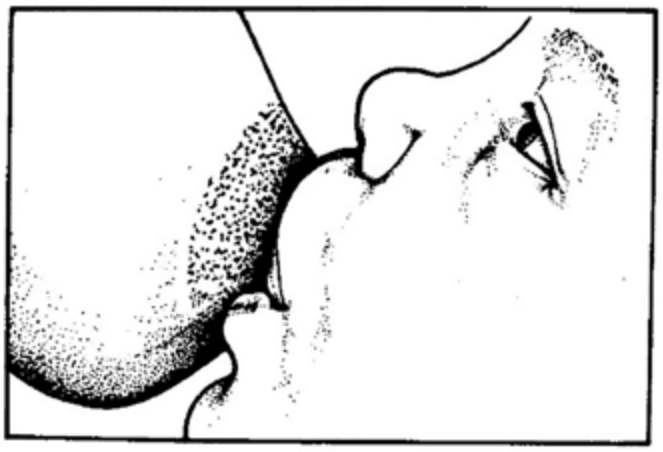
a. Resting her fingers on her chest wall so that her first finger forms a support at the base of the breast



b. Holding her breast too near the nipple

**Fig. 13.2** How does the mother hold her breast?

a. A baby who is well attached to the mother's breast



b. A baby who is poorly attached to the mother's breast

**Fig. 13.3** How is the baby attached to the breast?

## Exercise 13.A Using the Job aid: Breastfeed observation

In this exercise, you practise recognizing the signs of good and poor attachment in some slides of babies breastfeeding. In some of the photographs, you will also see signs of good and poor positioning.

With **Slides 13/8** and **13/9**, use your observations to practise filling in one of the Job aid: Breastfeed observation forms on the following pages. There are two forms. Fill in one form for each slide.

- If you see a sign, make a tick in the box next to the sign.
- If you do not see a sign, leave the box empty.

# Job aid: Breastfeed observation – Slide 13/8

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

## JOB AID: BREASTFEED OBSERVATION – SLIDE 13/9

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# Notes

# Notes (contd)

# Session 14

## Positioning a baby at the breast 1

### Objectives

After completing this session, participants will be able to:

- explain THE FOUR KEY SIGNS OF GOOD 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 SIGNS OF GOOD POSITIONING in different positions

### Introduction

Always observe a mother breastfeeding before you help her. 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 that are more than about 2 months old. There is no point trying to change a baby's position if the baby is getting breast milk effectively, and the mother is comfortable.

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 what you mean.

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.

# How to help a mother to position her baby

## How to help a mother position her baby

- Greet the mother and ask how the breastfeeding is going.
- Assess a breastfeed.
- Explain what might help, and ask whether 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 are in line
  - Baby held close to the 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 the 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.

You can orient the mother in relation to steps 1, 2, 3 and 4 of positioning the baby, using either the right or left hand and arm to show them: (1) slap the hand on the opposite forearm (demonstrating where the baby's head lies); (2) slap the palm and whole arm against the stomach (demonstrating that the baby is close to the mother and turns towards the mother); (3) slap the arm on the opposite palm (demonstrating that mother supports the buttocks, not holds); and (4) swing the hand and arm behind the waist (demonstrating that the baby's hand and arm should be behind the mother).

**Fig. 14.1** illustrates the correct way to position the baby for breastfeeding.

**Fig. 14.1** The mother's nipple is touching her baby's lips; the baby is opening his mouth and putting his tongue forward ready to take the breast

To make sure the mother/pregnant woman remembers the signs of attachment, you can ask her to point to themself, and name in sequence: (1) the baby's mouth is wide open; (2) the lower lip is turned outwards; (3) the baby's chin is touching the mother's breast; and (4) more of the darker skin (areola) is seen above the baby's top lip than below the bottom lip.

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.

## How to help a mother who is sitting

Greet the mother, introduce yourself, and ask her name and her baby's name. Ask her how she is and ask one or two open questions about how breastfeeding is going. Assess a breastfeed. Ask whether you may see how her baby breastfeeds, and ask her to put the baby to her breast in the usual way. (If the baby has had a feed recently, you may have to arrange to come back later.) Observe the breastfeed. If you decide that the mother needs help to improve her baby's attachment, first say something encouraging, such as: "He really wants your breast milk, doesn't he?"

Then explain what might help and ask whether she would like you to show her. For example, say something such as: "Breastfeeding might be more comfortable for you if (baby'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. Make sure that she is sitting in a comfortable, relaxed position. Sit down yourself, so that you also are comfortable and relaxed, and in a convenient position to help.

Explain to the mother how to hold her baby. Show her what to do if necessary.

Make these four key points about positioning a baby clear:

### THE FOUR KEY SIGNS OF GOOD POSITIONING

1. The baby's head and body are in line.
2. The baby is held close to the mother's body.
3. The baby's whole body is supported.
4. The baby approaches the breast, nose to nipple.

Show her how to support her breast with her hand to offer it to her baby:

- 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.
- Explain how she should touch her baby's lips with her nipple, so that the baby opens their mouth.
- Explain that she should wait until her baby's mouth is opening wide, before she moves the baby onto her breast. The baby's mouth needs to be wide open, to take a large mouthful of breast.

Explain or show her how to quickly move her baby to her breast, when the baby is opening their mouth wide. She should bring her baby to her breast. She should not move herself or her breast to her baby. She should aim her baby's lower lip below her nipple, so that their chin will touch her breast.

Notice how the mother responds. Does she seem to have pain? Does she say "Oh that feels better!" If she says nothing, ask her how her baby's suckling feels. Look for all the signs of good attachment. If the attachment is not good, try again.

### THE FOUR KEY SIGNS OF GOOD ATTACHMENT

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.

## Other ways for a mother who is sitting to position her baby

Mothers breastfeed in many different positions.

Some useful positions that you may want to show mothers are:

- the underarm position ( see **Fig. 14.2**)
- holding the baby with the arm opposite the breast (see **Fig. 14.3**).

**Fig. 14.2** A mother holding her baby in the underarm position

Useful for:

- twins
- blocked duct
- difficulty attaching the baby
- very small or low-birth-weight babies

**Fig. 14.3** A mother holding her baby with the arm opposite the breast

Useful for:

- very small or low-birth-weight babies
- sick babies
- blocked duct

## How to help a mother who is lying down

Help the mother to lie down in a comfortable, relaxed position. It is better if she is not "propped up" on her elbow, as this can make it difficult for the baby to attach to the breast.

Show her how to hold her baby (see **Fig. 14.4**). Exactly the same four key points on positioning are important, as for a mother who is sitting. 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.

**Fig. 14.4** A mother breastfeeding her baby lying down

# Notes

# Notes (contd)

# Session 15

## Taking a feeding history – 0 up to 6 months 1

### Objectives

After completing this session, participants will be able to:

- take a feeding history of an infant aged 0 up to 6 months
- demonstrate appropriate use of the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS

### Introduction

In this session, you will learn how to take a feeding history of a child aged 0 up to 6 months. The baby may be breastfeeding or receiving another form of milk, and may or may not be receiving complementary feeds.

The JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS will help you to remember the main questions to ask for any infant.



#### HOW TO TAKE A FEEDING HISTORY – 0 UP TO 6 MONTHS

- Greet the woman in a kind and friendly way.
- Use the mother's name and the baby's name (if appropriate).
- Ask her to tell you about herself and her baby in her own way, starting with the things that she feels are important.
- Look at the child's growth chart. It may tell you some important facts and save you asking some questions.
- Ask the questions that will tell you the most important facts.
  The JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS is a guide to the facts that you may need to learn about. Decide what you need to know from each of the six sections.
- Be careful not to sound critical.
- Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT.
- Try not to repeat your questions.
  If you need to repeat a question, first say: "Can I make sure that I have understood clearly?" and then, for example, "You said that (name) had both diarrhoea and pneumonia last month?"
- Take time to learn about more difficult, sensitive things.
  For example:
  - What does the baby's father say? Her mother? Her mother-in-law?
  - Is the mother happy about having the baby now? About the baby's sex?

Some mothers tell you these things spontaneously. Others tell you when you empathize, and show that you understand how they feel. Others take longer. If a mother does not talk easily, wait, and ask again later, or on another day, perhaps somewhere more private.

# JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

## Particular concerns about feeding of child:

### FEEDING

- Milk (breast milk, formula, cow's milk, other)
- Frequency of milk feeds
- Length of breastfeeds/quantity of other milks
- Night feeds
- Other foods in addition to milk (when started, what, frequency)
- Other fluids in addition to milk (when started, what, frequency)
- Use of bottles and how cleaned
- Feeding difficulties (breastfeeding/other feeding)

### HEALTH

- Growth chart (birth weight, weight now; length at birth, length now)
- Urine frequency per day (6 times or more)
- Stools (frequency, consistency)
- Illnesses

### PREGNANCY, BIRTH AND EARLY FEEDS (where applicable)

- Antenatal care
- Feeding discussed at antenatal care
- Delivery experience
- Rooming-in
- Prelacteal feeds
- Postnatal help with feeding

### MOTHER'S CONDITION AND FAMILY PLANNING

- Age
- Health – including nutrition and medications
- Breast health
- Family planning

### PREVIOUS INFANT FEEDING EXPERIENCE

- Number of previous babies
- How many breastfed and for how long
- If breastfed – exclusive or mixed fed
- Other feeding experiences

### FAMILY AND SOCIAL SITUATION

- Work situation
- Economic situation
- Family's attitude to infant feeding practices

## The Job aid: Feeding history – 0 up to 6 months

The Job aid: Feeding history – 0 up to 6 months is a guide to organize your thoughts, so that you do not get lost when you talk with a mother who has an infant or young child.

It is a good idea to ask a mother something from each section, to make sure you are clear about any difficulties she may be having. If at any time a mother wants to tell you something that is important to her, let her tell you that first. Ask about the other things afterwards.

Remember to use your counselling skills when you are taking a history from a mother. Try to ask questions in an open way, although you may also have to ask some closed questions if you need specific information. Remember to use other counselling skills, such as reflecting back, empathy and praise, in between questions, so that the mother is encouraged to talk more and to feel confident.

## Demonstration 15.A Taking a feeding history – 0 up to 6 months

**Health worker:** *Good morning, I am Nurse Jane. May I ask your name, and your baby's name?*
**Mother:** *Good morning, nurse; I am Mrs Green and this is my daughter Lucy.*

**Health worker:** *She is lovely – how old is she?*
**Mother:** *She is 5 months now.*

**Health worker:** *Yes – and she is taking an interest in what is going on, isn't she? Tell me, what milk have you been giving her?*
**Mother:** *Well, I started off breastfeeding her, but she is so hungry and I never seemed to have enough milk, so I had to give her bottle feeds as well.*

**Health worker:** *Oh dear, it can be very worrying when a child is always hungry. You decided to start bottle feeds? What are you giving her?*
**Mother:** *Well, I put some milk in the bottle and then mix in a spoonful or two of cereal.*

**Health worker:** *When did she start these feeds?*
**Mother:** *Oh, when she was about 2 months old.*

**Health worker:** *About 2 months. How many bottles do you give her each day?*
**Mother:** *Oh, usually two – I mix up one in the morning and one in the evening, and then she just sucks it when she wants to – each bottle lasts quite a long time.*

**Health worker:** *So she just takes the bottle little by little? What kind of milk do you use?*
**Mother:** *Yes – well, if I have formula, I use some of that; or else I just use cow's milk and mix in some water, or sweetened milk, because they are cheaper. She likes the sweet milk!*

**Health worker:** *Formula is very expensive isn't it? Tell me more about the breastfeeding. How often is she doing that now?*
**Mother:** *Oh she breastfeeds when she wants to – quite often in the night, and about 4 or 5 times in the day – I don't count. She likes it for comfort.*

**Health worker:** *She breastfeeds at night?*
**Mother:** *Yes she sleeps with me.*

**Health worker:** *Oh that makes it easier, doesn't it? Did you have any other difficulties with breastfeeding, apart from worrying about not having enough?*
**Mother:** *No, it wasn't difficult at all.*

**Health worker:** *Do you give her anything else yet? Any other foods or drinks?*
**Mother:** *No – I won't give her food for a long time yet. She is quite happy with the bottle feeds.*

**Health worker:** *Can you tell me how you clean the bottles?*
**Mother:** *I just rinse them out with hot water. If i have soap I use that, but otherwise just water.*

**Health worker:** *OK. Now can you tell me about how Lucy is. Has she got a growth chart? Can I see it? [mother hands over growth chart] Thank you, now let me see ... She was 3.5 kg and 51 cm when she was born, she was 5.5 kg and 59 cm when she was 2 months old, and now she is 6.0 kg and 66 cm. You can see that she gained weight fast for the first 2 months, but it is a bit slower since then. Can you tell me whether Lucy has had any illnesses?*

**Mother:** *Well, she had diarrhoea twice last month, but she seemed to get better. Her stools are normal now.*

**Health worker:** *Can I ask about the earlier days – how was your pregnancy and delivery?*

**Mother:** *They were normal.*

**Health worker:** *What did they tell you about feeding her when you were pregnant, and soon after she was born? Did anyone show you what to do?*

**Mother:** *Nothing - they told me to breastfeed her, but that was all. The nurses were so busy, and I came home after 1 day.*

**Health worker:** *They just told you to breastfeed?*

**Mother:** *Yes – but I didn't have any milk in my breasts even then, so I gave her some glucose water until the milk started.*

**Health worker:** *It is confusing isn't it when your breasts feel soft after delivery? You need help then, don't you?*

**Mother:** *Yes.*

**Health worker:** *Can I ask about you? How old are you?*

**Mother:** *Sure – I am 22.*

**Health worker:** *And how is your health?*

**Mother:** *I am fine.*

**Health worker:** *How are your breasts?*

**Mother:** *I have had no trouble with my breasts.*

**Health worker:** *May I ask whether you are thinking about another pregnancy at any time? Have you thought about family planning?*

**Mother:** *No – I haven't thought about it – I thought that you can't get pregnant when you are breastfeeding.*

**Health worker:** *Well, it is possible if you are also giving other feeds. We will talk about it more later if you like. Is Lucy your first baby?*

**Mother:** *Yes. And I do not want another one just yet.*

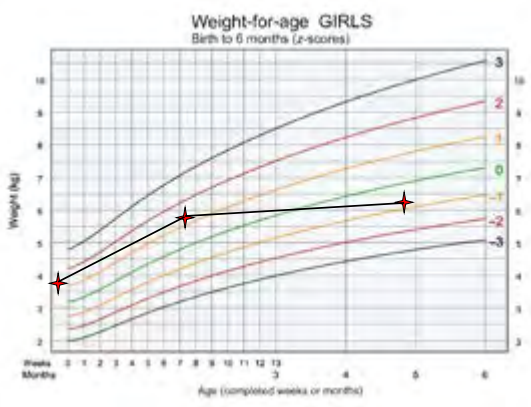
**Health worker:** *Tell me about how things are at home – are you going out to work?*

**Mother:** *No – I am a housewife now. I may try to find a job later when Lucy is older.*

**Health worker:** *Who else do you have at home to help you?*

**Mother:** *Lucy's father is with me. He has a job as a driver and he is very fond of Lucy, but he thinks she should not breastfeed at night – he thinks she breastfeeds too much and he wants her to sleep in another bed. But I am not sure ... He says that too much breastfeeding is what gives her diarrhoea.*

15/2

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# Notes

# Notes (contd)

# Session 16

## Common breastfeeding difficulties

### 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

### Introduction

In previous sessions, we have looked at ways to find out how mothers are managing with breastfeeding.

These include:

- good counselling skills to encourage a mother to tell you what is worrying her
- assessing a breastfeed, using your skills of observation to see whether a baby is well positioned and well attached
- taking a detailed feeding history.

There are many reasons why mothers stop breastfeeding or start to mix feed, even if they decided antenatally to breastfeed exclusively.

When helping mothers with difficulties, you will need to use all the skills you have learnt so far. Lay 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.

### "Not enough milk"

One of the most common reasons for a mother to stop breastfeeding is that she thinks she does not have enough milk. Usually, even when a mother thinks that she does not have enough breast milk, her baby is in fact getting all that they need. Almost all mothers can produce enough breast milk for one or even two babies.

Sometimes a baby does **not** get enough breast milk. But it is usually because they are not suckling enough, or not suckling effectively (see SESSION 12: HOW BREASTFEEDING WORKS 1). It is rarely because their mother cannot produce enough.

So it is important to think not about **how much milk a mother can produce**, but about **how much milk a baby is getting**.

16/3

**Reliable signs that a baby is not getting enough milk**

Poor weight gain
- less than 500 g per month

Small amount of concentrated urine
- fewer than six times per day

For the first 6 months of life, a baby should gain at least 500 g in weight each month; 1 kg is not necessary, and not usual. If a baby does not gain 500 g in a month, they are not gaining enough weight.

An exclusively breastfed baby who is getting enough milk usually passes dilute urine at least 6–8 times in 24 hours. If a baby is having other drinks, for example water, as well as breast milk, you cannot be sure they are getting enough milk if they are passing lots of urine.

16/4

### Possible signs that a baby is not getting enough breast milk

- Baby is not satisfied after breastfeeds
- Baby cries often
- Very frequent breastfeeds
- Very long breastfeeds
- Baby refuses to breastfeed
- Baby has hard, dry or green stools
- Baby has infrequent small stools
- No milk comes out when the mother tries to express
- The breasts did not enlarge (during pregnancy)
- Milk did not "come in" (after delivery)

There are several **possible** signs that a baby is not getting enough milk. Although these signs may worry a mother, there may be other reasons for them, so they are not reliable. For example, a baby may cry often because they have colic, although they might be getting plenty of milk.

**REASONS WHY A BABY MAY NOT GET ENOUGH BREAST MILK**

| BREASTFEEDING FACTORS | MOTHER: PSYCHOLOGICAL FACTORS | MOTHER: PHYSICAL CONDITION | BABY'S CONDITION |
|---|---|---|---|
| Delayed start<br>Feeding at fixed times<br>Infrequent feeds<br>No night feeds<br>Short feeds<br>Poor attachment<br>Bottles, pacifiers<br>Other foods<br>Other fluids (water, teas) | Lack of confidence<br>Worry, stress<br>Dislike of breastfeeding<br>Rejection of baby<br>Tiredness | Contraceptive pill (estrogen), diuretics<br>Pregnancy<br>Severe malnutrition<br>Alcohol<br>Smoking<br>Retained piece of placenta (rare)<br>Poor breast development (very rare) | Illness<br>Abnormality |
| **These are COMMON** | | **These are NOT COMMON** | |

The reasons in the first two columns (BREASTFEEDING FACTORS and MOTHER: PSYCHOLOGICAL FACTORS) are common. The reasons in the second two columns (MOTHER: PHYSICAL CONDITION and BABY'S CONDITION) are not common. So it is not common for a mother to have a physical difficulty in producing enough breast milk.

## How to help mothers with "not enough milk"

Firstly, find out whether the baby is really getting enough breast milk or not (using the reliable signs). If the baby is not getting enough breast milk you need to find out **why**, so that you can help the mother. If the baby is getting enough breast milk, but the mother thinks that they aren't, you need to find out **why** she doubts her milk supply, so that you can build her confidence.

## Babies who are not getting enough breast milk: low milk intake

Use your counselling skills to take a good feeding history. Assess a breast feed to check positioning and attachment and to look for bonding or rejection. Use your observation skills to look for illness or physical abnormality in the mother or baby. Make suggestions, depending on the cause of the insufficient milk. Always arrange to see the mother again soon. If possible, see the mother and baby daily until the baby is gaining weight and the mother feels more confident. It may take 3–7 days for the baby to gain weight.

## Babies who *are* getting enough milk but the mother *thinks* they are not: apparent milk insufficiency

Use your counselling skills to take a good feeding history. Try to learn what may be causing the mother to doubt her milk supply. Explore the mother's ideas and feelings about her milk and pressures she may be experiencing from other people regarding breastfeeding. Assess a breastfeed, to check positioning and attachment and to look for bonding or rejection. Praise the mother about good points about breastfeeding technique and good points about her baby's development. Correct mistaken ideas without sounding critical (see **Fig. 16.1**). Always arrange to see the mother again soon. These mothers are at risk of introducing other foods and fluids and need a lot of support until their confidence is built up again.

**Fig. 16.1** If a baby passes plenty of urine, it usually means that they are getting plenty of breast milk

Mrs Singh says she does not have enough milk. Her baby is 3 months old and crying "all the time". Her baby gained 200 g last month. Mrs Singh manages the family farm by herself, so she is very busy. She breastfeeds her baby about 2–3 times at night, and about twice during the day when she has the time. She does not give her baby any other food or drink.

*What could you say to empathize with Mrs Singh?*

*Mrs Singh says she does not have enough breast milk – do you think her baby is getting enough milk?*

*What do you think is the cause of Mrs Singh's baby not getting enough milk?*

*Can you suggest how Mrs Singh could give her baby more breast milk?*

# Crying baby

We will now look at another common reason for a mother to stop breastfeeding – the crying baby. Many mothers start unnecessary foods or fluids because they think that their baby "cries too much". They think that their baby is hungry, and that they do not have enough milk. These additional foods and drinks do not make a baby cry less. Sometimes a baby cries more.

A baby who cries a lot can upset the relationship between the baby and their mother, and can cause tension among other members of the family. An important way to help a breastfeeding mother is to counsel her about her baby's crying.

## Reasons why babies cry

| | |
|---|---|
| Discomfort | (dirty, hot, cold) |
| Tiredness | (too many visitors) |
| Illness or pain | (changed pattern of crying) |
| Hunger | (not getting enough milk, growth spurt) |
| Mother's food | (any food, sometimes cow's milk) |
| Drugs mother takes | (caffeine, cigarettes, other drugs) |
| Colic | |
| "High-needs" babies | |



# Causes of crying

## Hunger due to growth spurt

A baby seems very hungry for a few days, possibly because they are growing faster than before. The baby demands to be fed very often. This is commonest at the ages of about 2 weeks, 6 weeks and 3 months, but can occur at other times. If the baby suckles often for a few days, the breast-milk supply increases, and the baby breastfeeds less often again.

## Mother's food

Sometimes a mother notices that her baby is upset when she eats a particular food. This is because substances from the food pass into her milk. It can happen with any food, and there are no special foods to advise mothers to avoid, unless she notices a problem.

## Colic

Some babies cry a lot without one of the above causes. Sometimes the crying has a clear pattern. The baby cries continuously at certain times of day, often in the evening. The baby may pull up their legs as if they have abdominal pain. The baby may appear to want to suckle, but it is very difficult to comfort them. Babies who cry in this way may have a very active gut, or wind, but the cause is not clear. This is called "colic". Colicky babies usually grow well, and the crying usually becomes less after the baby is 3 months old.

## "High-needs" babies

Some babies cry more than others, and they need to be held and carried more. In communities where mothers carry their babies with them, crying is less common than in communities where mothers like to put their babies down to leave them, or where they put them to sleep in separate cots.

## How to help mothers whose babies cry a lot

As with "not enough milk", you have to try to find the cause of the crying, so that you can help the mother. Use your counselling skills to take a good feeding history. Help the mother to talk about how she feels and empathize with her. She may be tired, frustrated and angry.

Accept her ideas about the cause of the problem and how she feels about the baby. Try to learn about pressures from other people and what they think the cause of the crying is.

Assess a breastfeed to check the baby's suckling position and the length of a feed. Make sure the baby is not ill or in pain. Check the growth and refer if necessary. Where relevant, praise the mother that her baby is growing well and is not ill or bad or naughty.

Demonstrate ways to carry and comfort a crying baby (see **Fig. 16.2**). Give relevant information where appropriate

a. Holding the baby along your forearm

b. Holding the baby round his abdomen, on your lap

c. Father holding the baby against his chest

**Fig. 16.2** Some different ways to hold a colicky baby

Mrs Biyela's baby is 3 months old. She says that for the last few days he has suddenly started crying to be fed very often. She thinks that her milk supply has suddenly decreased. Her baby has breastfed exclusively until now and has gained weight well.

*What could you say to empathize with Mrs Biyela?*

*What could you praise to build Mrs Biyela's confidence?*

*What relevant information could you give to Mrs Biyela?*

## Refusal to breastfeed

Refusal by the baby is a common reason for stopping breastfeeding. However, it can often be overcome. Refusal can cause great distress to the baby's mother. She may feel rejected and frustrated by the experience.

There are different kinds of refusal:

- Sometimes a baby attaches to the breast, but then does not suckle or swallow, or suckles very weakly.
- Sometimes a baby cries and fights at the breast, when their mother tries to breastfeed them.
- Sometimes a baby suckles for a minute and then comes off the breast, choking or crying. The baby may do this several times during a single feed.
- Sometimes a baby takes one breast, but refuses the other.

You need to know why a baby is refusing to breastfeed, before you can help the mother and baby to enjoy breastfeeding again.

Most reasons why babies refuse to breastfeed fall into one of these categories.

- The baby is ill, in pain or sedated (see **Fig. 16.3**)
- Difficulty with breastfeeding technique
- Change that upsets the baby
- Apparent, not real, refusal

**Fig. 16.3** A baby may be unable to suckle because they are sick

## CAUSES OF REFUSAL TO BREASTFEED

| | |
|---|---|
| Illness, pain, discomfort or sedation (especially in the first week) | • Difficult delivery (e.g. brain damage)<br>• Infection<br>• Pain from bruise (vacuum, forceps)<br>• Sedation (drugs given to mother)<br>• Blocked nose<br>• Sore mouth (thrush, teething) |
| Difficulty with breastfeeding technique (especially in the first month) | • Separation from mother after delivery<br>• Use of bottles and pacifiers while breastfeeding<br>• Not getting much milk (e.g. poor attachment)<br>• Pressure on back of head when positioning<br>• Delay "coming in", engorgement<br>• Mother shaking her breast<br>• Restricting the length of feeds<br>• Difficulty coordinating suckle |
| Change that upsets the baby (especially aged 3–12 months) | • Separation from mother (e.g. if mother returns to work)<br>• New carer or too many carers<br>• Change in the family routine<br>• Mother ill<br>• Mother has breast problem (e.g. mastitis)<br>• Mother menstruating<br>• Change in smell of mother |
| Apparent refusal | • Neonate – rooting<br>• Age 4–8 months – distraction<br>• Above 1 year – self-weaning |

**Fig. 16.4** Sometimes a baby refuses because breastfeeding has become unpleasant or frustrating

# How to help mothers whose babies refuse the breast

## Helping a mother and baby to breastfeed again

### Help the mother to do these things:

- Keep her baby close – no other carers
  - Give plenty of skin-to-skin contact at all times, not just at feeding times
  - Sleep with her baby
  - Ask other people to help in other ways
- Offer her breast whenever her baby is willing to suckle
  - When her baby is sleepy, or after a cup feed
  - When she feels her ejection reflex working
- Help her baby to take the breast
  - Express breast milk into the baby's mouth
  - Position the baby so that they can attach easily to the breast – try different positions
  - Avoid pressing the back of the baby's head or shaking the mother's breast
- Feed her baby by cup
  - Express her breast milk to keep the supply and keep her breasts healthy
  - Give her own expressed breast milk if possible; if necessary, give artificial feeds
  - Avoid using bottles, teats or pacifiers

Mrs Barlow delivered a baby by vacuum extraction 2 days ago. The baby has a bruise on her head. When Mrs Barlow tries to feed her, she screams and refuses. Mrs Barlow is very upset and feels that breastfeeding will be too difficult for her baby, and you notice that her hand is pressing on the bruise.

*What could you say to empathize with Mrs Barlow?*

*What praise and relevant information could you give to build Mrs Barlow's confidence?*

*What practical help could you give to Mrs Barlow?*

## Summary

Notice how all the skills you have learnt so far can be used to help mothers in different situations: LISTENING AND LEARNING SKILLS; SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT; assessing a breastfeed; helping a mother to position and attach her baby; taking a detailed feeding history.

In many situations, there may be no treatment, so giving the mother relevant information and suggestions is very important.

# Notes

# Notes (contd)

# Notes (contd)

# Session 17

## Expressing breast milk 1

### Objectives

After completing this session, participants will be able to:

- list the situations when expressing breast milk is useful
- explain how to stimulate the oxytocin reflex
- rub a mother's back to stimulate the oxytocin reflex
- demonstrate how to select and prepare a container for expressed breast milk
- describe how to store breast milk
- explain to a mother the steps of expressing breast milk by hand



### Introduction

In this session, you will learn how to express breast milk effectively. There are many situations in which expressing breast milk is useful and important, to enable a mother to initiate or continue breastfeeding.

Many mothers are able to express plenty of breast milk using rather strange techniques. If a mother's technique works for her, let her do it that way. But if a mother is having difficulty expressing enough milk, teach her a more effective technique.

Expressing milk is useful to:

- leave breast milk for a baby when their mother goes out or goes to work
- feed a low-birth-weight baby who cannot breastfeed
- feed a sick baby who cannot suckle enough
- keep up the supply of breast milk when a mother or 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 Sessions 19 and 28: Breast conditions 1 and 2)
- facilitate the transition to another method of feeding or to heat-treat breast milk (see Module 7: HIV and infant feeding).

All mothers should learn how to express their milk, so that they know what to do if the need arises. It is important that all those who care for breastfeeding mothers should be able to teach mothers how to express their milk.

Breast milk can be stored for about 8 hours at room temperature or up to 24 hours in a refrigerator.

### Stimulating the oxytocin reflex

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 (see **Fig. 17.1**).

### How to stimulate the oxytocin reflex

- 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 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 or with a comb.
    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.

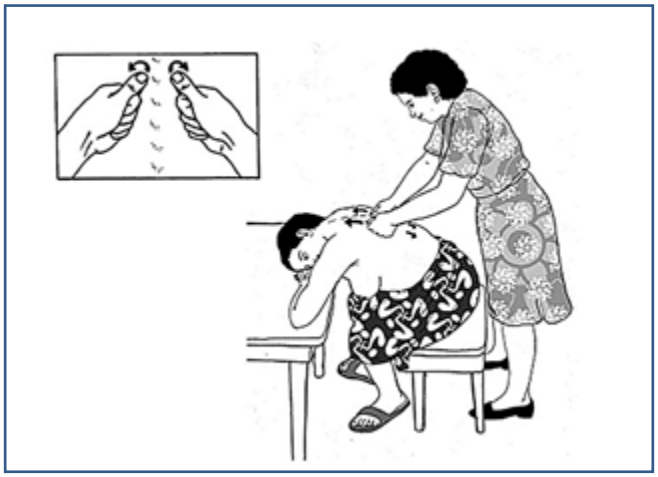


**Fig. 17.1** A helper rubbing a mother's back to stimulate the oxytocin reflex

## How to express breast milk by hand

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 breast milk. 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.

## How to prepare a container for expressed breast milk

- Choose a cup, glass, jug or jar with a wide mouth.
- Wash the cup in soap and water (this can be done the day before).
- Pour boiling water into the cup, and leave it f or a few minutes. Boiling water will kill most of the germs.
- When ready to express milk, pour the water out of the cup.

## How to express breast milk by hand

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. Teach her to:

- 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 or first two fingers on the breast **below** the nipple and areola, opposite the thumb. She supports the breast with her other fingers (see **Fig.17.2**).
- Press her thumb and first finger or first two fingers 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 first finger or first two fingers 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.
- Alternate between breasts 5 or 6 times. Stop expressing when the milk no longer flows.
- Explain that to express breast milk 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.
- If she is expressing colostrum in the first one or two days, collect it in a 2 or 5 mL syringe as it comes from the nipple. A helper can do this. This avoids wasting the milk, which can happen with a small volume of milk in a large container.
- Some mothers find pushing slightly inwards towards the chest wall at the same time as compressing the breast helps to increase milk flow.

**Avoid the following:**

- Squeezing the nipple – this can block milk flow
- Sliding the fingers on the breast – friction can make the breasts sore

a. Place the first finger or first two fingers and thumb each side of the areola and press inwards towards the chest wall

b. Press behind the nipple and areola between your first finger or first two fingers and thumb

c. Press from the sides to empty all segments

**Fig. 17.2** How to express breast milk by hand

## How often a mother should express milk

How often a mother should express her milk depends on the reason for expressing the milk. Usually, she should express as often as the baby would breastfeed.

**To establish lactation, to feed a low-birth-weight or sick neonate**, 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 production of breast milk to begin, in the same way that a baby suckling soon after delivery helps production to begin.

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 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**, she should 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**, she should 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**, she should express only as much as is necessary.

# Notes

# Notes (contd)

# Session 18

## Cup-feeding

### Objectives

After completing this session, participants will be able to:

- list the advantages of cup-feeding
- estimate the volume of milk to give to a baby according to weight
- demonstrate how to cup-feed safely

### Introduction

In this session, you will learn how to help a mother cup-feed a baby safely. Cup-feeding has many advantages over bottle feeding:

- 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, giving 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 themself. The person who feeds a baby by cup has to hold the baby and look at them and give them some of the contact that they need.
- A cup does not interfere with suckling at the breast.
- A cup enables a baby to control their own intake, at their own pace.
- A baby sits semi-upright to cup-feed, which reduces the risk of aspiration. **Milk must not be poured into the baby's mouth**.

## How to feed a baby by cup

- Wash your hands.
- Wrap the baby in a cloth to hold their hands by their side, and to support their back.
- Hold the baby sitting upright or semi-upright on your lap.
- Put a cloth in front to protect the baby's clothes from spilled milk.
- 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 their mouth and eyes.
  - A low-birth-weight baby starts to take the milk into their mouth with their 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 their lips and let them take it themself (sipping or lapping).
- When the baby has had enough, they will close their mouth and will not take any more. If the baby has not taken the calculated amount, they may take more next time, or you may need to feed them more often.
- Measure the baby's intake over 24 hours – not just at each feed.

**Fig. 18.1** illustrates how to cup-feed a baby.

**Fig. 18.1** Feeding a baby by cup

# Amount of milk to give to babies

The amount of milk that a baby takes at each feed varies with all methods of feeding. Let the baby decide when they have taken enough. If a baby takes a very small feed, offer extra at the next feed, or give the next feed early, especially if the baby shows signs of hunger.

If a mother produces only a small amount of breast milk, be sure to give it all to her baby. Help her to feel that this small amount is valuable, especially to prevent infection. This helps her confidence, and will help her to produce more milk.

Low-birth-weight babies need only very small volumes during the early days. If the mother can express even a small amount of colostrum, it is often all that her baby needs.

## AMOUNT OF MILK TO GIVE TO BABIES WHO CANNOT BREASTFEED

### What milk to give

- Choice 1: expressed breast milk (if possible from the baby's mother, or from a donor); this may be pasteurized or heat-treated according to local policy.
- Choice 2: formula milk made up according to the instructions and World Health Organization (WHO) guidelines

### Amount of milk to give

**Babies who weigh 2.5 kg or more**

- 150 mL milk/kg body weight per day
- Divide the total into 8 feeds, and give 3-hourly

**Babies who weigh less than 2.5 kg (low birth weight)**

- Start with 60 mL/kg body weight per day
- Increase the total volume by 20 mL/kg per day, until the baby is taking a total of 180–200 mL/kg per day
- Divide the total into 8–12 feeds, to feed every 2–3 hours
- Continue until the baby weighs 1800 g or more, and is fully breastfeeding

Check the baby's 24-hour intake

The size of individual feeds may vary

## Example

Calculate the volume of milk, per feed, for a 2-week-old baby who weighs 3.8 kg.

The volume of milk the baby needs in 24 hours is 150 mL per kg.

*How much milk will this baby need in 24 hours?*

*How much milk should the baby be offered at each feed?*

Many mothers do not have equipment for measuring volumes. You could explain to the mother how much milk the cup holds that she uses to feed the baby, and show her how much milk to offer at each feed. For example, using the calculation above, if the mother has a cup that holds 150 mL, she should offer the baby approximately half a cup of milk per feed.

# Notes

# Session 19

## Breast conditions 1

## Objectives

After completing this session, participants will be able to recognize and manage these common breast conditions

- flat and inverted nipples
- engorgement
- blocked duct and mastitis
- sore nipples and nipple fissure



## Introduction

Diagnosis and management of these breast conditions are important, both to relieve the mother and to enable breastfeeding to continue. Treatment differs for some breast conditions if the woman is living with HIV. We will discuss these during the session.

## Different breast shapes

Many mothers worry about the size of their breasts. Different shapes and sizes are all normal and they can all produce plenty of milk for a baby – or two or even three babies (see **Fig. 19.1**). Women with small breasts often worry that they cannot produce enough milk. 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.

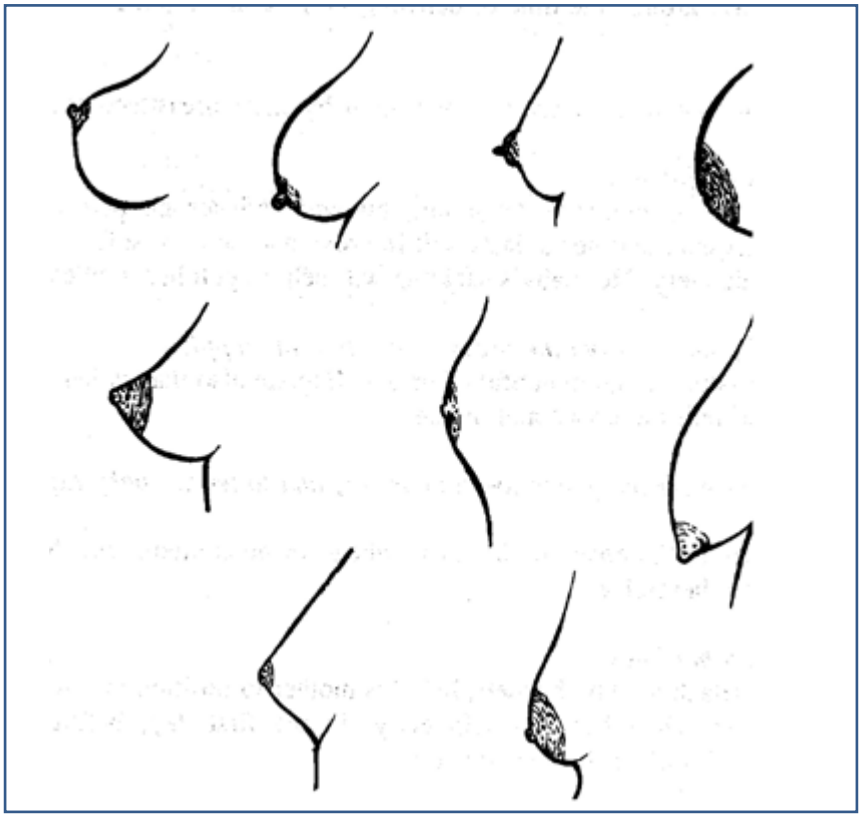


**Fig. 19.1.** There are many different shapes and sizes of breast; babies can breastfeed from almost all of them

## Management of flat and inverted nipples

- **Antenatal treatment**
  - Antenatal treatment is probably not helpful. For example, stretching the nipples or wearing nipple shells does not help.
  - Most nipples improve around the time of delivery without any treatment.
  - Help is most important soon after delivery, when the baby starts breastfeeding.
- **Build the mother's confidence**
  - Explain that it may be difficult at the beginning, but with patience and persistence she can succeed.
  - Explain that her breasts will improve and become softer in the week or two after delivery.
  - Explain that a baby suckles from the breast – not from the nipple. Her baby needs to take a large mouthful of breast.
  - Explain also that as her baby breastfeeds, they will stretch her nipple out.
  - Encourage her to give plenty of skin-to-skin contact, and to let her baby explore her breasts.
  - Let the baby try to attach to the breast on their own, whenever they are interested.
  - Some babies learn best by themselves.
- **Help the mother to position her baby**
  - If a baby does not attach well by themself, help the mother to position them so that they can attach better.
  - Give her this help early, in the first day, before her breast milk "comes in" and her breasts are full.
  - Sometimes, putting a baby to the breast in a different position makes it easier for them to attach. For example, some mothers find that the underarm position is helpful.
  - Sometimes, making the nipple stand out before a feed helps a baby to attach.
  - Stimulating her nipple may be all that a mother needs to do.
  - There is another method called the syringe method, which we will discuss in this session (see **Fig. 19.2**).
  - Sometimes, shaping the breast makes it easier for a baby to attach. To shape her breast, a mother supports it from underneath with her fingers, and presses the top of the breast gently with her thumb.
- **If a baby cannot suckle effectively in the first week or two, help the mother to feed with expressed milk**
  - The mother should express her milk and feed it to her baby with a cup.
  - Expressing milk helps to keep breasts soft, so that it is easier for the baby to attach to the breast; and it helps to keep up the supply of breast milk.
  - She should not use a bottle, because that makes it more difficult for her baby to take her breast.
  - Alternatively, she could express a little milk directly into her baby's mouth.
  - Some mothers find that this is helpful. The baby gets some milk straight away, so they are less frustrated. The baby may be more willing to try to suckle.
  - She should continue to give the baby skin-to-skin contact, and let them try to attach to her breast on their own.

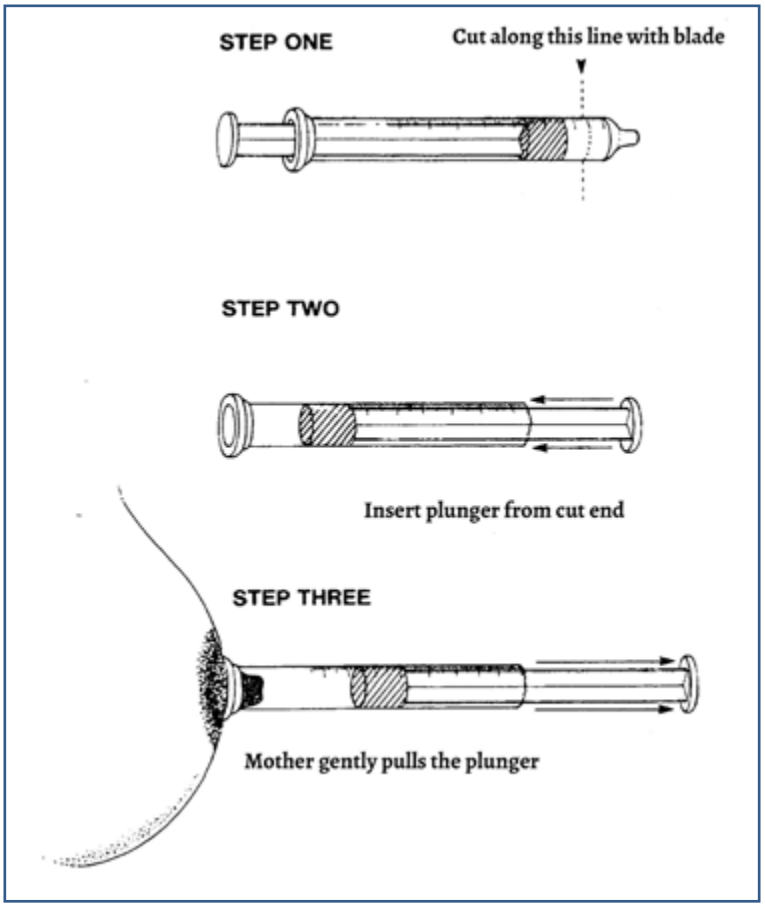



**Fig. 19.2.** Preparing and using a syringe for treatment of inverted nipples

## Full and engorged breasts

### SUMMARY OF DIFFERENCES BETWEEN FULL AND ENGORGED BREASTS

| **Full breasts** | **Engorged breasts** |
|---|---|
| Hot | Painful |
| Heavy | Oedematous |
| Hard | Tight, especially nipple |
| | Shiny |
| | May look red |
| Milk flowing | Milk NOT flowing (may drip) |
| No fever | May be fever for 24 hours |

Breasts may become engorged if:

- there has been a delay in starting breastfeeding after birth
- there is poor attachment to the breast so breast milk is not removed effectively
- there is infrequent removal of milk, for example if breastfeeding is not on demand
- the length of breastfeeds is restricted.

Engorgement may be prevented by letting the baby feed as soon as possible after delivery, making sure the baby is well positioned and attached to the breast and encouraging unrestricted breastfeeding. Milk does not then build up in the breast.

### Treatment of breast engorgement

- 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 production of breast milk decreases.
- If the baby is able to suckle, they should feed frequently. This is the best way to remove milk. Help the mother to position her baby, so that they attach well. Then the baby suckles effectively and does not damage the nipple.
- If the baby is not able to suckle, help the 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:
  - 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.

## Engorgement in a woman living with HIV who is stopping breastfeeding

We have just discussed the management of breast engorgement in a woman who wishes to continue breastfeeding.

Engorgement may also occur in a woman who wishes to stop breastfeeding – for example, a woman living with HIV who is stopping breastfeeding early. When a woman 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. Pharmacological treatments to reduce the milk supply are not recommended. However, a simple analgesic, for example ibuprofen, may be used to reduce inflammation and help the discomfort while the mother's milk supply is decreasing. If ibuprofen is not available, then paracetamol may be used.

## Mastitis

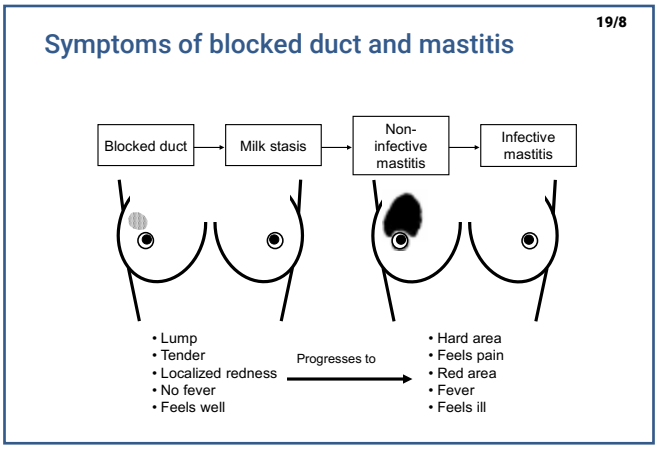
A woman with mastitis has severe pain and fever and she feels ill. Part of the breast is swollen and hard, with redness of the overlying skin.

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**. 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 whether mastitis is non-infective or infective. If the symptoms are all severe, however, the woman is more likely to need treatment with antibiotics.




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 starting 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.

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.

## Treatment of blocked duct and mastitis

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.
- Look for pressure from clothes, usually a tight bra.
- 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, advise the mother to do these things:

- **Breastfeed frequently** – the best way is to rest with her baby, so that she can respond to the baby and feed them whenever they are willing.
- **Gently massage the breast while her baby is suckling** – show her how to massage over the blocked area, and over the duct that leads from 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. (It is safe for the baby to swallow the plug.)
- **Apply warm compresses to her breast between feeds**.

Sometimes it is helpful to do these things:

- **Start the feed on the unaffected breast** – this may help if pain seems to be preventing the oxytocin reflex. She should change to the affected breast after the reflex starts working.
- **Breastfeed the baby in different positions at different feeds** – this helps to remove milk from different parts of the breast more equally. Show the mother how to hold her baby in the underarm position, or how to lie down to feed them, instead of holding them across the front at every feed. However, do not make her breastfeed in a position that is uncomfortable for her.

Sometimes a mother is unwilling to feed her baby from the affected breast, especially if it is very painful. Sometimes a baby refuses to feed from an infected breast, possibly because the taste of the milk changes. In these situations, it is necessary to express the milk. If the milk stays in the breast, an abscess is more likely.

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 can enter
- no improvement after 24 hours of improved drainage.

Treat her, or refer her for antibiotics, analgesics (ibuprofen) and rest.

## Antibiotic treatment for infective mastitis

The most common bacterium found in breast abscesses 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<br>6-hourly for 7–10 days | Take dose at least 30 minutes before food |
| Erythromycin | 250–500 mg orally<br>6-hourly for 7–10 days | Take dose 2 hours after food |

## Mastitis in a woman living with HIV

In a woman who is HIV positive, 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 is not appropriate for these women.

If a woman living with HIV 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 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 may need to discuss other feeding options for her to use meanwhile. The mother can feed the baby with her expressed breast milk; she may decide to heat-treat her expressed milk, or to give commercial formula milk. The infant should be fed by cup.

Give antibiotics for 10–14 days to avoid relapse. Give pain relief and suggest rest as for a woman who is not living with HIV.

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.



## Nipple fissure

The most common cause of sore nipples and a nipple fissure is poor attachment to the breast. If a baby is poorly attached, they pull the nipple in and out as they suck, and rub the skin of the breast against their mouth. This is very painful for the 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 mother has sore nipples or a fissure, help her to improve her baby's position so that they are well attached.

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. Do not recommend 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.

## *Candida* infection (thrush)

The second most common cause of sore nipples is infection with ***Candida***, also known as "thrush". *Candida* infection can make the skin sore and itchy. *Candida* infections often follow the use of antibiotics to treat mastitis or other infections.

Some mothers describe a burning or stinging that 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.

Suspect *Candida* if sore nipples persist even when the baby's attachment is good. Check the baby for thrush. They may have white patches inside their cheeks or on their tongue. They may have a rash on their bottom.

Treat both the mother and the baby with nystatin. Suggest to the mother to stop using pacifiers (dummies) and nipple shields. If these are used, they should be boiled for 20 minutes daily and replaced weekly.

In women who are living with HIV, it is particularly important to treat breast thrush and oral thrush in the infant promptly.

### TREATMENT OF *CANDIDA* INFECTION OF THE BREAST

- Use either nystatin cream or suspension
  - **Nystatin** cream 100 000 IU/g:
    - Apply to nipples 4 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 the child's mouth 4 times daily after breastfeeds for 7 days, or as long as mother is being treated
- **Stop** using pacifiers, teats and nipple shields

# Notes

# Session 20

## Feeding low-birth-weight babies

### Objectives

After completing this session, participants will be able to:

- describe feeding of low-birth-weight babies
- estimate the volume of milk to offer to a low-birth-weight baby

### Introduction

Breast milk is the best milk for all babies. It is especially valuable for babies who are low birth weight or sick. In this session, we discuss low-birth-weight babies in detail.

The term **low-birth-weight baby** includes any baby with a birth weight of less than 2500 g (up to and including 2499 g), regardless of gestational age. This includes babies who are **preterm**, that is, born before 37 weeks of gestation, or they may be born at term but **small for gestational age**.

In many countries, 15–20% of all babies are low birth weight.

Low-birth-weight babies, whether they are term or preterm, are at particular risk of infection, and they need breast milk more than larger babies. Yet they are given artificial feeds more often than larger babies.

### Feeding low-birth-weight babies

Many low-birth-weight babies can breastfeed without difficulty. Babies born at term who are small for dates 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 breast milk by tube or cup, and helped to establish full breastfeeding later. Breastfeeding is easier for these babies than bottle feeding.

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

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

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

Babies of about 32 weeks' gestational age or more are able to start suckling on the breast.

Babies between about 30 and 32 weeks' gestational age can take feeds from a small cup, or from a spoon.

Babies below 30 weeks' gestational age usually need to receive their feeds by a tube in hospital.

Let the mother put her baby to her breast as soon as they are well enough. The baby may only root for the nipple and lick it at first, or may suckle a little. Continue giving expressed breast milk by cup, to make sure the baby gets all that they need.

When a low-birth-weight baby starts to suckle effectively, they may pause during feeds quite often and for quite long periods. For example, they may take 4–5 sucks and then pause for up to 4 or 5 minutes.

It is important not to take the baby off the breast too quickly. Leave them on the breast so that they can suckle again when they are ready.

The baby 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-birth-weight baby at the breast are:

- across her body, holding the baby with the arm on the opposite side to the breast
- the underarm position.

Low-birth-weight babies need to be followed up regularly, to make sure that they are getting all the breast milk that they need.

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

### AMOUNT OF MILK TO GIVE TO LOW-BIRTH-WEIGHT BABIES WHO CANNOT BREASTFEED

#### What milk to give

- Choice 1: expressed breast milk (if possible from the baby's mother, or from a donor); this may be pasteurized or heat-treated according to local policy
- Choice 2: formula milk made up according to the instructions and World Health Organization (WHO) guidelines

#### Amount of milk to give to babies who weigh less than 2.5 kg (low birth weight)

- Start with 60 mL/kg body weight per day
- Increase the total volume by 20 mL/kg per day, until the baby is taking a total of 180 mL/kg per day
- Divide the total into 8–12 feeds, to feed every 2–3 hours
- Continue until the baby weighs 1800 g or more, and is fully breastfeeding

Check the baby's 24-hour intake

The size of individual feeds may vary

## Notes

# Notes (contd)

# Notes (contd)

# Session 21

## Clinical practice session 1: Listening and learning – assessing a breastfeed

### 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 Job aid: Breastfeed observation
- demonstrate appropriate use of Counselling card 3: Good attachment and Counselling card 4: Breastfeeding positions



### Preparation

You are going to practise the Listening and learning skills that you learnt in Sessions 6 and 7, and assess a breastfeed, with mothers in the ward. You may also help a mother to position and attach her baby to the breast.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups, and take turns to talk to a mother, while the other members of the group observe.

### What to take with you:

- Two copies of the Job aid: Breastfeed observation
- One copy of the Listening and learning skills checklist
- Pencil and paper to make notes
- Copies of Counselling card 3: Good attachment, Counselling card 4: Breastfeeding positions, and the *Guidance on the use of counselling cards*.

You do not need to take anything else – no books, manuals or handbags.

### If you are the one who talks to the mother:

Introduce yourself to the mother, and ask permission to talk to her. Introduce the group and explain that you are interested in infant feeding. Try to find a chair or stool to sit on. If necessary, and if allowed in the facility, sit on the bed.

If the baby is feeding, ask the mother to continue as she is doing. If the baby is not feeding, ask the mother to give a feed in the normal way at any time that her baby seems ready. Ask the mother's permission for the group to watch the feed.

Before or after the breastfeed, ask the mother some open questions about how she is, how the baby is and how feeding is going, to start the conversation. Encourage the mother to talk about herself and the baby. Practise as many of the Listening and learning skills as possible.

Help the mother to position and attach her baby to her breast, if needed.

Use Counselling card 3: Good attachment or Counselling card 4: Breastfeeding positions when helping a mother to attach and position her baby, as needed.

## If you are observing:

Stand quietly in the background. Try to be as still and quiet as possible. Do not comment or talk among yourselves.

Make general observations of the mother and baby. Notice for example, does she look happy? Does she have formula milk or a feeding bottle with her? Make general observations of the conversation between the mother and the participant-counsellor. Notice for example, who does most of the talking? Does the mother talk freely, and seem to enjoy it?

Make specific observations of the participant-counsellor's LISTENING AND LEARNING SKILLS, including their non-verbal communication. Mark a tick on your LISTENING AND LEARNING SKILLS CHECKLIST when they use a skill, to help you to remember for the discussion. Notice whether they make a mistake, for example if they use a judging word, or if they ask a lot of questions to which the mother says "yes" or "no".

Stay quietly watching the mother and baby as the feed continues. While you observe, fill in a JOB AID: BREASTFEED OBSERVATION. Write the name of the mother and baby; mark a tick beside each sign that you observe; add the time that the feed takes.

Thank the mother for her time and say something to praise and support her

### 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**

In Clinical practice session 1, if a mother seems to need help, you should inform your trainer, and a member of staff 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. They may need to refer to the forms to remind themself what to do, but if they want to write, they should do so afterwards. The participants who are observing can make notes.

# Job aid: Breastfeed observation

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

## LISTENING AND LEARNING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

#### Use LISTENING AND LEARNING SKILLS:

☐ Keep the head level with mother/caregiver?

☐ Pay attention (eye contact)?

☐ Remove physical barriers (tables and notes)?

☐ Take time/allow the mother/caregiver time to talk?

☐ Use appropriate touch?

☐ Ask open questions?

☐ Use responses and gestures that showed interest?

☐ Reflect back what the mother/caregiver said?

☐ Empathize – showing that he or she understood how the mother/caregiver feels?

☐ Avoid using words that sound judging?

# Notes

# Notes (contd)

# Notes (contd)

# Session 22

## Clinical practice session 2: Building confidence and giving support – positioning a baby at the breast

### Objectives

After completing this session, participants will be able to:

- demonstrate appropriate SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT when counselling a mother on feeding her infant
- demonstrate how to help a mother to position and attach her baby at the breast
- demonstrate appropriate use of COUNSELLING CARD 3: GOOD ATTACHMENT and COUNSELLING CARD 4: BREASTFEEDING POSITIONS



### Preparation

You are going to practise the SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT that you learnt in Sessions 9 and 10, and helping a mother to position her baby. You will also continue to practise assessing a breastfeed and using LISTENING AND LEARNING SKILLS.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups, and take turns to talk to a mother, while the other members of the group observe.

### What to take with you:

- Two copies of the JOB AID: BREASTFEED OBSERVATION
- One copy of the COUNSELLING SKILLS CHECKLIST
- Pencil and paper to make notes
- Copies of COUNSELLING CARD 3: GOOD ATTACHMENT, COUNSELLING CARD 4: BREASTFEEDING POSITIONS, and the *Guidance on the use of counselling cards*.

You do not need to take anything else – no books, manuals or handbags.

### How to do the clinical practice:

- Talk to and observe mothers and babies as for the previous clinical practice session.
- Continue to practise assessing a breastfeed and LISTENING AND LEARNING SKILLS.
- You can share the Counselling cards with the mothers, if needed.

In addition, practise as many of the six SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT as possible. Try to do these things:

- praise two things that the mother and baby are doing right
- give the mother two pieces of relevant information that are useful to her now.

The participant who observes marks a tick on the COUNSELLING SKILLS CHECKLIST for every skill that their partner uses.

It is important that you 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 such as: "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 SIGNS OF GOOD POSITIONING with the mother, holding her baby. If you do this, quite a few babies will wake up and want another feed when their nose is opposite the nipple.

## JOB AID: BREASTFEED OBSERVATION

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

## Did the counsellor:

### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Notes

# MODULE 4

## Breastfeeding (advanced sessions)

# Session 23

## Why breastfeeding is important 2

### Objectives

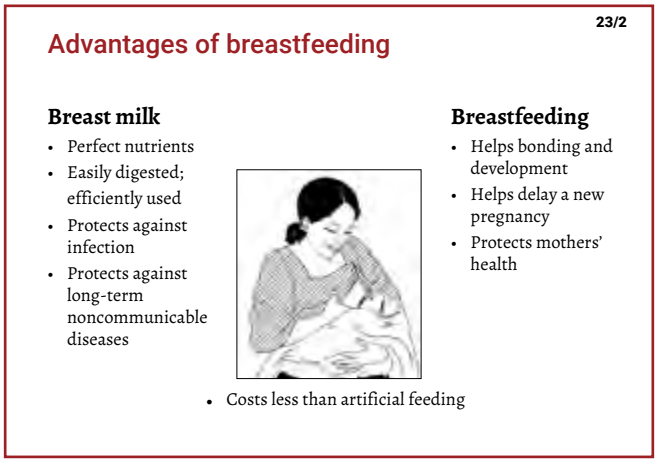
After completing this session, participants will be able to:

- state the advantages of exclusive breastfeeding for 6 months
- describe the main differences between breast milk, animal milk and infant formula milk
- list the advantages of continued breastfeeding with complementary feeding for up to 2 years or beyond
- list the risks of artificial feeding
- define the terms used to describe infant feeding

### Introduction

The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommend that infants should be exclusively breastfed for the first 6 months of life, starting within 1 hour after birth, and to continue breastfeeding up to 2 years of age or beyond. You need to understand why breastfeeding is important, so you can help to support mothers who may have doubts about the value of breast milk.

Breastfeeding is the normal, healthy way to feed a baby. It is the best, but it is not something extra: it is what a baby needs. Artificial feeding carries risks, and a child who is artificially fed, for example on infant formula milk or cow's or other animal milk, is at a disadvantage. You need to know the differences between breast milk, animal milks and infant formula milk, and the risks of artificial feeding.




This diagram summarizes the main advantages of breastfeeding.

It is useful to think of the advantages of both breast milk (listed on the left) and the process of breastfeeding (listed on the right).

Breastfeeding includes more than just feeding a baby on breast milk. Breastfeeding is important for the whole family, emotionally and economically, and it protects a mother's health in several ways.

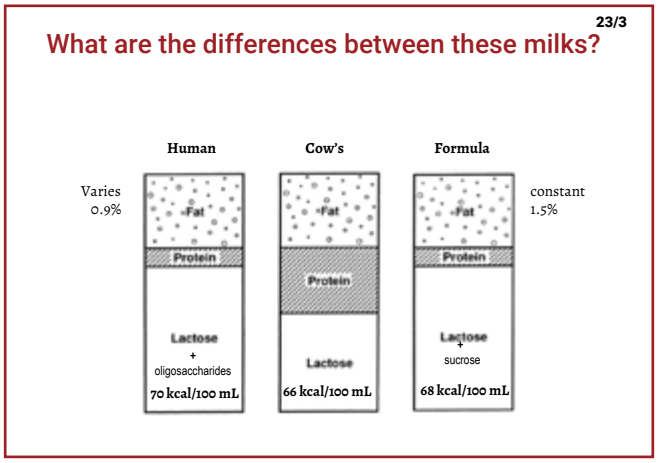
The value of a baby having breast milk is that:

- it contains exactly the nutrients that a baby needs
- it is easily digested and efficiently used by the baby's body
- it protects a baby against infection, which is particularly important for neonates
- it results in long-term health benefits such as a reduced risk of obesity, allergy, hypertension and diabetes.

All other milks are different, and not as good for a human baby.

The importance of breastfeeding is that:

- it helps a mother and baby to bond – that is, to develop a close, loving relationship
- it helps a baby's development
- it can help to delay a new pregnancy
- it helps to protect the mother's health in several ways:
  - it helps the uterus to return to its previous size; this helps to reduce bleeding, and may help to prevent **anaemia**
  - it reduces her risk of breast and ovarian cancer, and type 2 diabetes
- it costs less than artificial feeding, including fewer costs for health care
- it produces no waste materials, so it is better for the environment.




First, look at this chart and compare the nutrients in breast milk with the nutrients in cow's milk and infant formula milk.

All the milks contain **fat**, which provides about half of the energy that a young human or a young animal needs; they contain **protein**, for growth; and they contain the special milk sugar **lactose**, which also provides energy.

In some communities, other animal milks are used, such as goat's milk. There are differences between milks from different animals, but in general what we say here applies to all of them.

Protein is an important nutrient, and you might think that more protein must be better. However, cows and other animals grow more quickly than humans, so they need milk with a higher concentration of protein. It is difficult for a baby's immature kidneys to excrete the extra waste from the protein in animal milks.

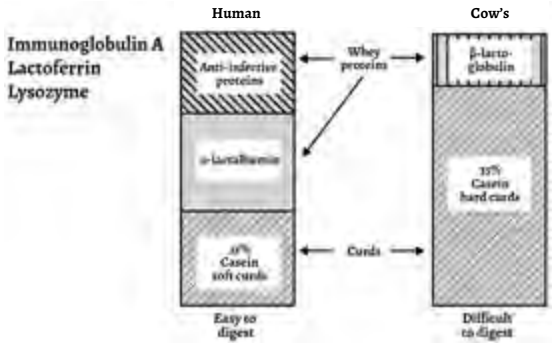
Infant **formula milk** may be made from animal milk, or from soybean and vegetable oils. The quantity of protein in the formula milk is adjusted, so that it is nearer to that in human milk. But the quality is very different, and is far from perfect for babies, as you will see in the next image.

To make formula milk more like human milk, sugars have to be added. Sometimes other sugars such as sucrose are added instead of lactose. Sucrose is less suitable for a baby and can cause dental caries in the child.

Breast milk also contains oligosaccharides, which are short chains of sugar molecules. They have important anti-infective properties.

23/4

## Differences in the quality of proteins in different milks




The protein in different milks varies in quality, as well as in quantity. This chart shows that much of the protein in cow's milk is **casein**, which forms thick, indigestible curds in a baby's stomach. Human milk contains a different kind of casein. It forms softer curds that are easier to digest, and there is less of it.

The soluble or **whey** proteins are also different. Human milk contains mainly alpha-lactalbumin, and cow's milk contains beta-lactoglobulin. In human milk, much of the whey protein consists of anti-infective proteins, such as immunoglobulin A, or IgA, and lactoferrin, which help to protect a baby against infection. Cow's milk and formula milk do not contain the anti-infective proteins that protect babies.

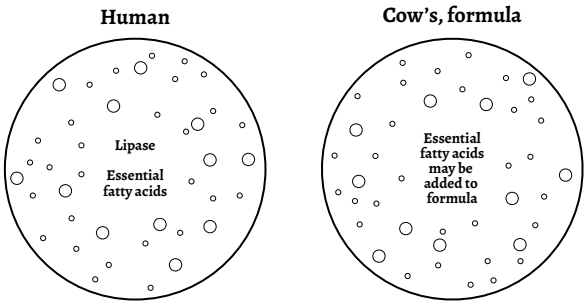
Babies fed artificially on cow's milk or formula milk may develop **intolerance** to the proteins in the milk, such as beta-lactoglobulin. They may develop diarrhoea, abdominal pain, rashes and other symptoms when they have feeds that contain the different kinds of protein. Diarrhoea may become persistent, which can contribute to malnutrition.

Artificially fed babies are also more likely than breastfed babies to develop **allergies**, which may cause **eczema**, and possibly **asthma**.

A baby may develop intolerance or allergy after only a few artificial feeds given in the first few days of life.

23/5

## Differences in the fats of different milks




The amount of fat in cow's milk and human milk is similar, but there are important differences in the quality of the fat in the different milks.

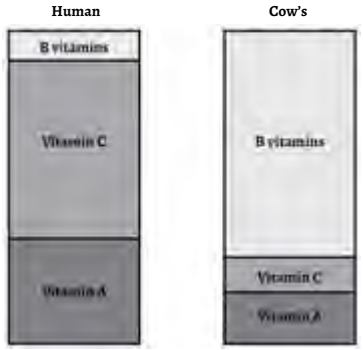
Human milk contains **essential fatty acids** that are not present in cow's milk. These essential fatty acids are needed for a baby's growing brain and eyes, and for healthy blood vessels. Essential fatty acids are sometimes added to formula milk, but it is not certain whether the baby's body uses them in the same way as those in breast milk.

Human milk also contains an enzyme **lipase**, which helps to digest fat. This enzyme is not present in cow's milk or formula milk. So the fat in breast milk is more completely digested and more efficiently used by a baby's body than the fat in cow's milk or formula milk.

The faeces of an artificially fed baby are thicker and more solid than those of a breastfed baby. This is partly because an artificially fed baby's faeces contain more unused fat and other food.

23/6

## Vitamins in different milks



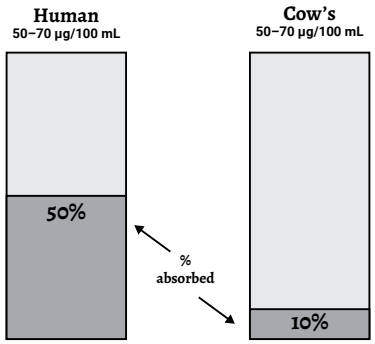

This chart compares the amounts of vitamins in human and cow's milk. It shows that human milk contains more of some important vitamins than cow's milk. Breast milk contains plenty of vitamins A and C, if the mother has enough in her food. Breast milk can supply much of the vitamin A that a child needs in the second year of life.

Cow's milk contains plenty of the B vitamins but it does not contain as much vitamin A and vitamin C as human milk.

Infant formula milk has enough vitamins added to it to cover a baby's needs.

23/7

## Iron in milk

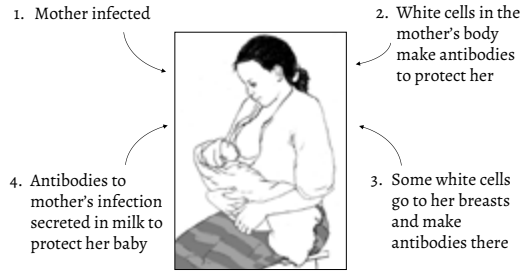



Iron is important to prevent anaemia. Different milks contain very small amounts of iron (50–70 µg/100 mL, i.e. 0.5–0.7 mg/L). But there is an important difference. Only about 10% of the iron in cow's milk is absorbed, but about 25–50% of the iron from breast milk is absorbed.

Babies fed cow's milk may not get enough iron, and they often develop anaemia. Exclusively breastfed babies do get enough iron, and they are protected against iron-deficiency anaemia until at least 6 months of age, and often longer.

23/8

## Protection against infection




Breast milk is not just a food for babies. It is a living fluid, which protects a baby against infections.

For the first year or so of life, a baby's immune system is not fully developed, and cannot fight infections as well as an older child's or adult's. So a baby needs to be protected by their mother. Breast milk contains white blood cells, and a number of anti-infective factors, which help to protect a baby against infection. Breast milk also contains **antibodies** against infections that the mother has had in the past, and to the bacteria in her environment. This protection is particularly important immediately after a baby is born, and through the neonatal period.

This diagram shows the special way in which breast milk is able to protect a baby against new infections that the mother has, or that are in the family's environment now.

When a mother develops an infection (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), which are secreted in her breast milk to protect her baby (4). So a baby should not be separated from their mother when she has an infection, because her breast milk protects the baby against the infection.

Artificial feeds are inactive. They contain no living white cells or antibodies, and few other anti-infective factors, so they provide much less protection against infection. The main immunoglobulin in breast milk 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 as IgG), which are found mainly in the blood.

Breast milk also contains many other anti-infective factors.

23/9

## Summary of differences between milks

| Component | Human milk | Cow's milk | Formula milk |
|---|---|---|---|
| Protein | Right amount<br>Easy to digest | Too much<br>Difficult to digest | Quantity reduced<br>Quality as cow's |
| Fats | EFAs present<br>Lipase to digest | No EFAs<br>No lipase | Some EFA added<br>No lipase |
| Carbohydrate | Lactose – plenty<br>Oligosaccharides (anti-infective) | Lactose – less<br>Oligosaccharides not suitable | Lactose + sucrose<br>Lacks oligosaccharides |
| Vitamins and minerals | Adequate if mother has enough | Low vitamin A and C and iron | Vitamins/minerals added usually enough |
| Anti-infective factors | IgA, lactoferrin, lysozyme, cells | **None** | **None** |
| Growth factors | Present | **None** | **None** |

EFA: essential fatty acid; IgA: immunoglobulin A.

This table summarizes the differences between human milk, cow's milk and infant formula milk. You can see that each of the components is present in human milk in the right quantity, and with optimal quality.

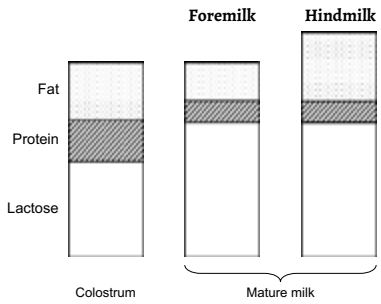
In cow's milk and other animal milks, some components are present in unsuitable amounts or they are absent, as well as being of inappropriate quality.

In infant formula milk, the quantities of some components are adjusted so that they are more suitable than animal milks, but the quality remains inappropriate. It is impossible to add anti-infective or growth factors.

Different kinds of infant formula milk vary, but in general they are similar in these respects.

23/10

## Differences between colostrum and mature milk



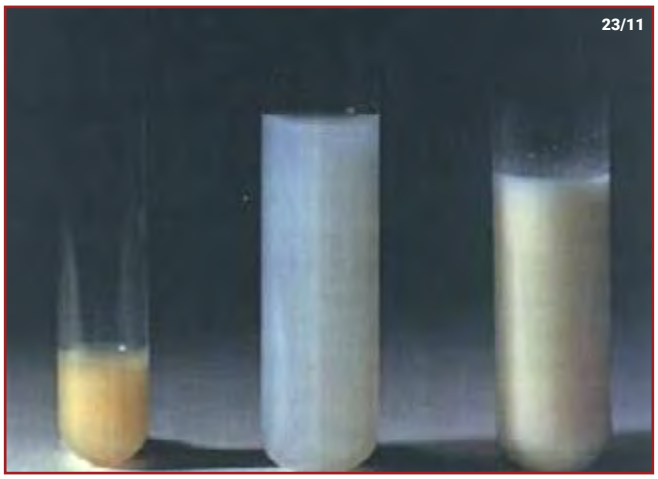

The composition of breast milk is not always the same. It varies according to the age of the baby, and from the beginning to the end of a feed. It also varies between feeds, and may be different at different times of the day. This chart shows some of the main variations.

**Colostrum** is the special breast milk that women produce in the first few days after delivery. Some women produce **colostrum** before delivery. There is a small amount, and it is thick, and yellowish or clear in colour. After 2–3 days, the breasts start to secrete milk in larger amounts, and the breasts feel full, hard and heavy. This is called the milk "coming in". At first, the milk is called transitional, and after 2 weeks it is called **mature milk**.

Colostrum contains more protein than later milk. Much of this extra protein is immunoglobulin.

Breast milk also changes from the beginning to the end of a feed. The milk that comes first is called **foremilk**. The milk that comes later is called **hindmilk**. Hindmilk contains more fat than foremilk. The baby gets more energy towards the end of a feed.



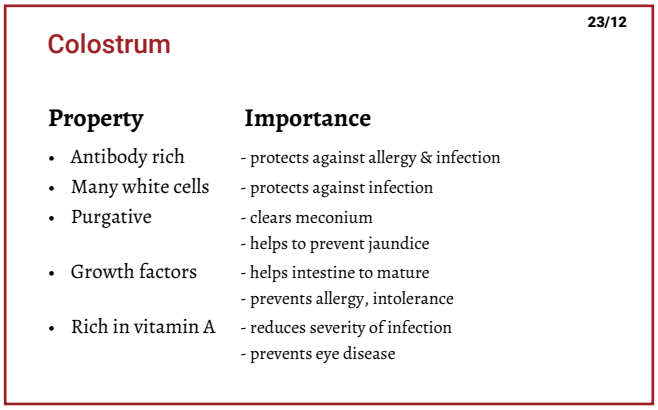



This photograph shows how the appearance of colostrum, foremilk and hindmilk differs.

Foremilk is produced in larger amounts than hindmilk, and it provides plenty of protein, lactose, and other nutrients, and a lot of water. Because babies get large amounts of foremilk, they get all the water that they need from it, even in a hot climate. Babies do not need other drinks of water before they are 6 months old. If they satisfy their thirst on water supplements, they take less breast milk, and get less energy, protein and other nutrients.

Hindmilk is the whiter milk that is produced later in a feed, it is produced in smaller amounts, but the fat that it contains provides much of the energy of a breastfeed. Because of this, it is important not to take a baby off a breast too quickly. The baby should be allowed to continue until they have had all that they want, and release the breast themself, so that the baby gets plenty of fat-rich hindmilk.

Mothers sometimes worry that their milk is "too thin". This is because they notice the foremilk. Ask them to look at the milk that comes at the end of a feed. Explain that it is important for the baby to have both foremilk and hindmilk to get a complete "meal", and all the water, energy and nutrients that they need. Milk is never "too thin".



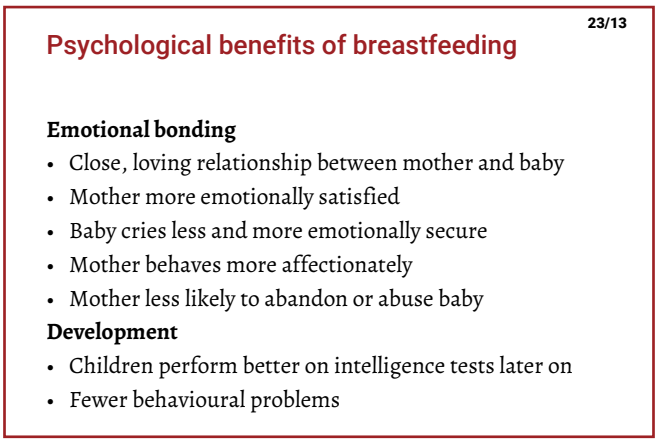

This chart shows the special properties of colostrum, and why it is important.

- It contains more antibodies and other anti-infective proteins than mature milk.
- It contains more white blood cells than mature milk.

These anti-infective proteins and white cells provide a neonate's first immunization against the microorganisms that surround the baby when they are is born. Colostrum helps to prevent the bacterial infections that can cause sepsis and death. Babies who start to breastfeed immediately after delivery, and who are not given any other feeds at this time, are less likely to die than neonates for whom the first feed is delayed, or who are given other feeds.

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 that 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 richer in some vitamins than mature milk, especially 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. It is all that most babies need before the transitional milk comes in. Babies should not be given any drinks or foods at this time.




Breastfeeding has important psychological benefits for both mothers and babies.

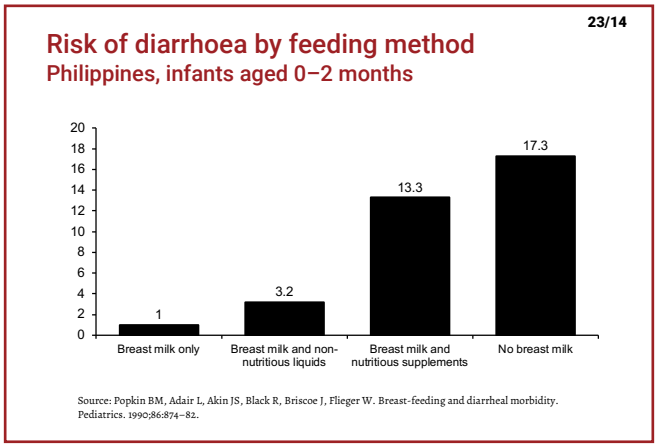
Breastfeeding helps a mother and baby to form a close, loving relationship, which makes mothers feel deeply satisfied emotionally. Close contact from immediately after delivery helps this relationship to develop. This process is called **bonding**.

Babies cry less, and they may develop more quickly, if they stay close to their mothers and are put to the breast from immediately after delivery.

Mothers who breastfeed respond to their babies in a more affectionate way. They complain less about the baby's need for attention and feeding at night. They are less likely to abandon or abuse their babies.

A number of studies suggest that breastfeeding helps a child to develop intellectually. Low-birth-weight babies fed breast milk in the first weeks of life perform better on intelligence tests in later childhood than children who are artificially fed.

Newer studies also show that children who were breastfed have fewer behavioural problems.



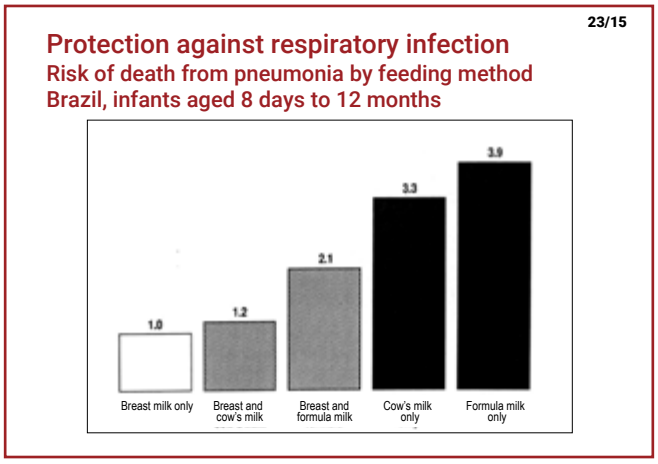

This chart shows how breastfeeding protects a baby against diarrhoea. It shows the main findings of a study from the Philippines comparing how often babies fed in different ways get diarrhoea.

The bar on the left is for babies who were exclusively breastfed. The bar is small, because very few babies who are exclusively breastfed get diarrhoea. The bar on the right is for artificially fed babies, who received no breast milk. This column is 17 times taller, because these babies were 17 times more likely to get diarrhoea than babies fed only on breast milk.

Some of the babies were given breast milk and other feeds or fluids, here called "nutritious supplements". This is partial breastfeeding. These babies were more likely to have diarrhoea than exclusively breastfed babies, but less likely than babies who received no breast milk.

Some babies were breastfed, and also given non-nutritious liquids such as tea. They were predominantly breastfed. These babies were more likely to have diarrhoea than exclusively breastfed babies, but less likely than partially breastfed or artificially fed babies.

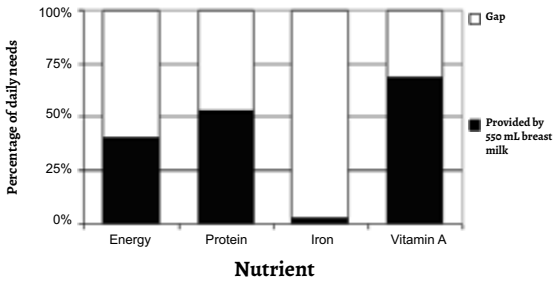
Artificially fed babies get diarrhoea more often, partly because artificial feeds lack anti-infective factors, and partly because artificial feeds are often contaminated with harmful bacteria. Breast milk is not contaminated.




Breastfeeding also protects against respiratory illness. This chart shows some of the findings from a study in Brazil, of babies aged 8 days to 12 months. It compares how many babies fed in different ways died from **pneumonia**. In this study, artificially fed babies were 3–4 times more likely to die from pneumonia than were exclusively breastfed babies. Partially breastfed babies came somewhere in between. Other studies have shown that breastfeeding also protects babies against other infections, for example ear infections, meningitis and urinary tract infections.

23/16

## Breast milk in the second year of life




From the age of 6 months, breast milk is no longer sufficient by itself. From 6 months, all babies should receive other foods, known as **complementary foods**, in addition to breast milk. Complementary foods should be given by cup or cup and spoon.

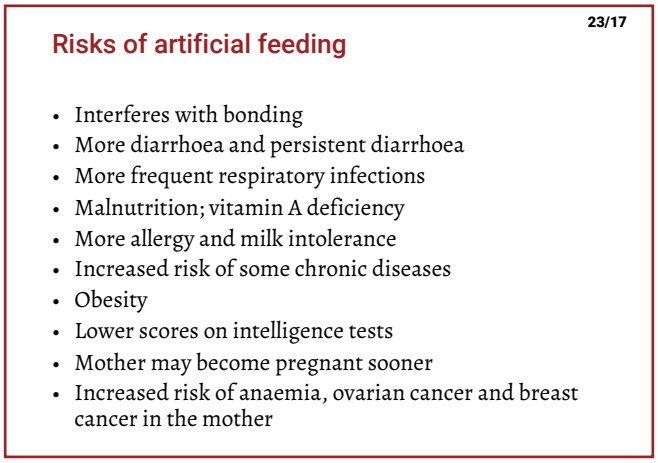
This chart shows how much of a child's daily energy and nutrient needs can be supplied by breast milk during the second year of life. It can provide up to 40% of the energy needs of a young child in the second year of life and half of the protein a child needs. The amount of food required to cover the gap increases as the child gets older, and as the intake of breast milk decreases.

The energy needed in addition to breast milk is about 200 kcal per day for infants aged 6–8 months, 300 kcal per day for infants aged 9–11 months, and 550 kcal per day for children aged 12–23 months.

However, breast milk continues to be an important source of energy and high-quality nutrients beyond 6 months of age.

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

The different nutrients mentioned above may not be easily available from the family diet. Continuing to breastfeed during the second year can help to prevent malnutrition, especially among children who are most at risk.




This list summarizes the risks of artificial feeding. 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 or respiratory or other infections. The diarrhoea may become persistent. The baby may get too little milk and become malnourished because they receive too few feeds or because the feeds are too dilute. The baby is more likely to suffer from vitamin A deficiency.

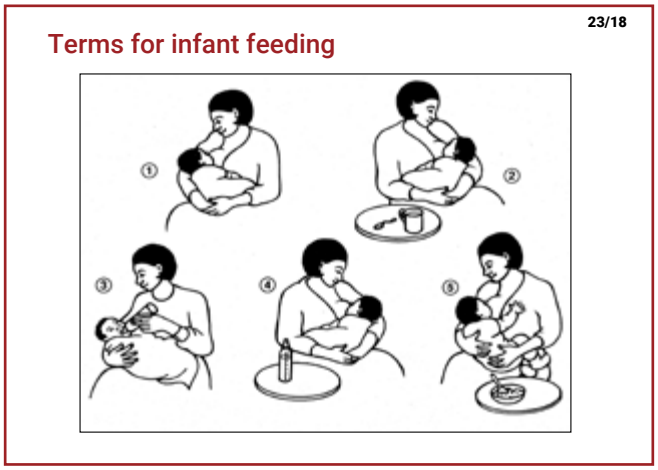
An artificially fed baby is more likely to die from infections than a breastfed baby, particularly in the first month of life.

The baby is more likely to develop allergic conditions, such as eczema and possibly asthma. The baby 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. The baby may get too much artificial milk, and become **obese**. The baby 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, and type 2 diabetes.

So, artificial feeding may be harmful for children and their mothers. Breastfeeding is fundamental to child health and survival, and important for the health of women.




This graphic illustrates the main terms to describe different ways of feeding infants.

- Baby 1 is **exclusively breastfed**.
- Baby 2 is **predominantly breastfed**. He is breastfeeding, but there is also a small cup on the table with some water in it.
- Both Baby 1 and Baby 2 are **fully breastfed**.
- Baby 3 is **bottle fed**.
- Baby 3 is also **artificially fed**.

The terms "bottle fed" and "artificially fed" are both necessary, because a baby may be fed breast milk from a bottle, or receive artificial feeds without a bottle, for example from a cup.

- Baby 4 is breastfeeding, but his mother also has a bottle of an artificial feed for him. He is **partially breastfed**, or **mixed fed**.
- Baby 5 is more than 6 months old, and his mother is giving him some food in a bowl in addition to breastfeeding him. This is **introduction of complementary foods**.

## Exclusive breastfeeding

Exclusive breastfeeding means giving a baby no other food or drink, not even water, in addition to breastfeeding (except medicines and vitamin or mineral drops; expressed breast milk is also permitted).

## Predominant breastfeeding

Predominant breastfeeding means breastfeeding a baby, but also giving small amounts of water or water-based drinks – such as tea.

## Full breastfeeding

Full breastfeeding means breastfeeding either exclusively or predominantly.

## Bottle feeding

Bottle feeding means feeding a baby from a bottle, whatever is in the bottle, including expressed breast milk.

## Artificial feeding

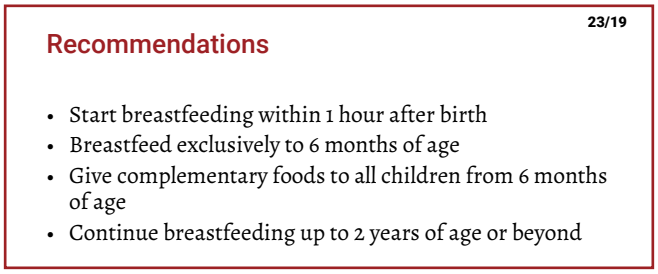
Artificial feeding means feeding a baby on infant formula milk, animal milk, or other drinks or foods such as dilute cereals, and not breastfeeding at all.

## Partial breastfeeding, or mixed feeding

Partial breastfeeding or mixed feeding means giving a baby some breastfeeds and some artificial feeds, either milk or cereal, or other food.

## Introduction of complementary foods

This means giving the baby solid, semi-solid or soft foods starting at 6 months of age.




This image summarizes the current recommendations for feeding infants and young children. We call this "optimal infant and young child feeding".

Babies should have immediate skin-to-skin contact with their mothers, so that they can start to breastfeed within 1 hour after birth. They should not have any food or drink before they start to breastfeed, or before the mature milk "comes in".

Babies should be exclusively breastfed for the first 6 months of life.

All children older than 6 months should receive complementary foods.

Children should continue to breastfeed with complementary feeding up to 2 years of age or beyond.

# Notes

# Notes (contd)

# Session 24

## How breastfeeding works 2

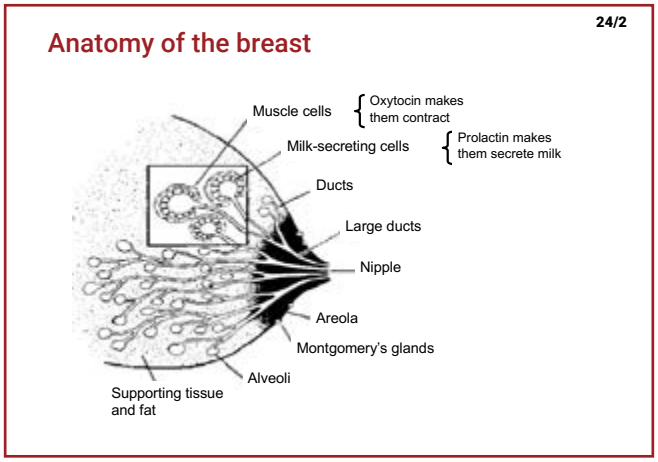
## Objectives

After completing this session, participants will be able to describe:

- the relevant anatomy of the breast
- the physiology of the lactation hormones
- the physiology of breast-milk production and flow
- the suckling action of the baby when well attached and poorly attached
- the causes and effects of poor attachment
- reflexes in the baby related to breastfeeding

## Introduction

In order to help mothers, you need to understand how breastfeeding works. In this session, we will review the anatomy and physiology of breastfeeding. 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.



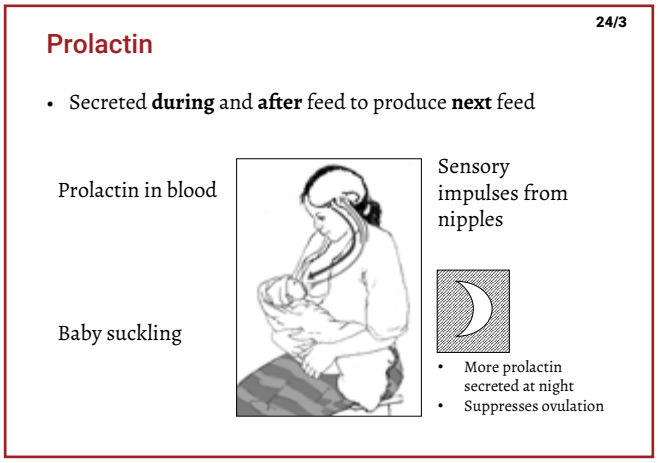

This diagram shows the anatomy of the breast.

First, look at the nipple, and the dark skin called the **areola** that surrounds it. In the areola are small glands called **Montgomery's glands**, which secrete an oily fluid to keep the skin healthy (clean and lubricated).

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. The ducts join to form 7–10 larger ducts that pass through the nipple.

The larger ducts beneath the areola dilate during feeding and hold the breast milk temporarily during the feed. It is the fat and other tissue that give the breast its shape, and that make 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.




The hormone prolactin is important to initiate, or start, milk production after delivery, and to sustain, or continue, milk production.

The prolactin level is high in pregnancy, but it cannot make the cells secrete milk at that time, because the hormone progesterone blocks it. After delivery, progesterone decreases, and prolactin can start working. This makes milk production increase after delivery; 2–3 days postpartum, a mother notices that her breasts feel full, and we say that the milk has "come in". Remember from the previous session that before the milk "comes in", breasts produce milk called colostrum; the amount is small but it is all that the baby needs soon after delivery.

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 that is already in the breast, stored in the alveoli and smaller ducts.

If a baby does not suckle enough, the prolactin level falls, and the breasts make less milk. This is most important in the first month or two after delivery, when milk production is adjusting to the baby's needs.

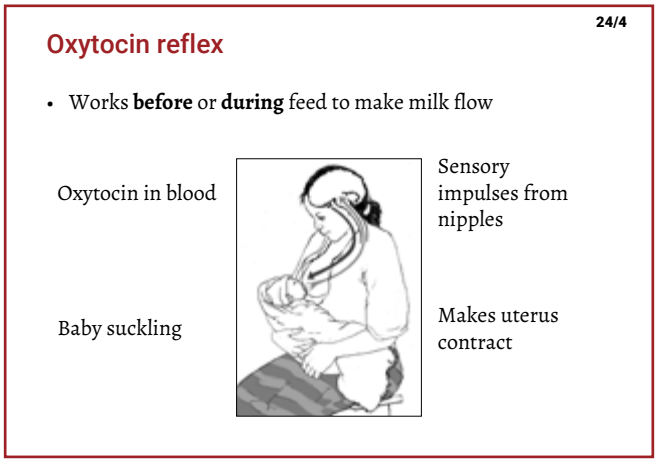
Most women can produce more milk than their babies need or take. If a mother has two babies, and they both suckle, her breasts make milk for two. Most mothers can produce enough milk for at least two babies.

Sometimes people talk as though to make a mother produce more milk, we should give her more to eat, or 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, when the mother is relaxed, so breastfeeding at night is especially helpful for keeping up the milk supply.
- Prolactin makes a mother feel relaxed, and sometimes sleepy, so she usually rests well even if she breastfeeds at night.
- Hormones related to prolactin suppress ovulation, so breastfeeding can help to delay a new pregnancy. Breastfeeding at night is important for this.

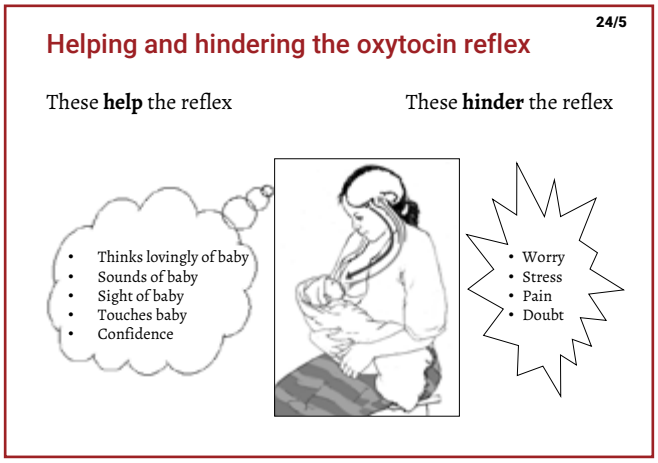



This diagram explains about the hormone oxytocin.

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 that 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. As the reflex works, the larger ducts beneath the areola fill with milk and increase in size. Sometimes the milk flows to the outside. Oxytocin is necessary to enable the baby to get the milk.

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. Another important point about oxytocin is that it 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.

Oxytocin is sometimes called "the love hormone" because it makes a mother feel loving towards her baby, and calm. This effect of oxytocin is important for **bonding** with the baby, and behaving in a motherly way. Mothers who bottle feed their babies may not have the same feelings.




This diagram shows how the oxytocin reflex is easily affected by a mother's thoughts and feelings.

Good feelings, for example feeling pleased with her baby, or thinking lovingly of them, and feeling confident that her milk is the best for the baby, can help the oxytocin reflex to work and her milk to flow. Sensations such as touching or seeing her baby, or hearing them 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. Acute stress, as in times of emergency, can also hinder the reflex. It may seem as if the breasts have stopped producing milk. However, the breasts are producing milk, but it is not flowing out, and it is difficult for the baby to get it. Fortunately, this effect is usually temporary, and can be overcome. The mother needs support and comfort to help her feel calmer. If the baby continues to suckle, her milk will flow again.

The oxytocin reflex helps us to understand two **key points** about caring for mothers and babies:

**Key point:** A mother needs to have her baby near her all the time, so that she can see, touch and respond to them. This helps her body to prepare for a breastfeed, and it helps her breast milk to flow. If a mother is separated from her baby between feeds, her oxytocin reflex may not work so easily.

**Key point:** You need to remember a mother's feelings whenever you talk to her. Try to make her feel good and build her confidence, to help her breast milk to flow well. Try not to say anything that may make her doubt her breast milk supply.

## Signs of the oxytocin reflex

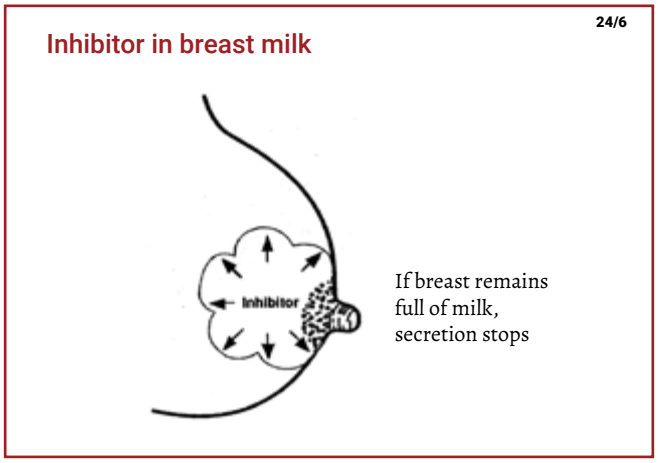
Mothers are often aware of their oxytocin reflex, because of the following signs. You may notice some of these signs when you observe a mother and baby, or you can ask her if she notices them.

If one or more of the signs or sensations are present, then a mother can be sure that her oxytocin reflex is active, and that her breast milk is flowing. However, even if her reflex is active, she may not feel the sensations, and the signs may not be obvious.

### Signs and sensations of an active oxytocin reflex

A mother 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 breast milk is flowing into the baby's mouth




Production of breast milk is also controlled within the breast itself.

You may wonder why sometimes one breast stops making milk, while the other breast continues to make milk – although oxytocin and prolactin go equally to both breasts. This diagram shows why.

There is a substance in breast milk that 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. This is obviously necessary if a baby dies or stops breastfeeding for some other reason. If breast milk 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.

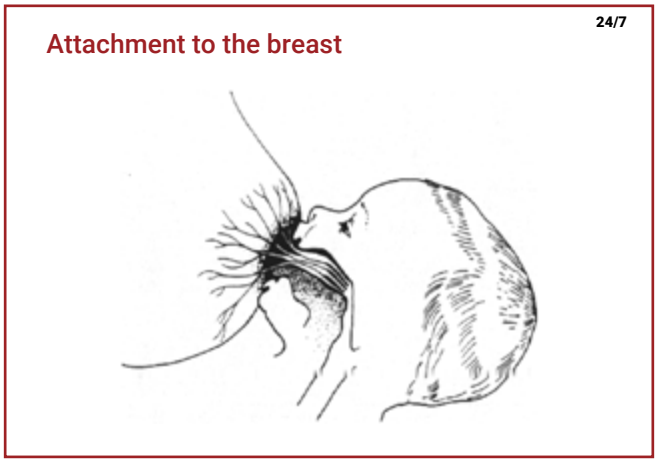
It also helps you to understand why:

- For a breast to continue making milk, the milk must be removed.
- If a baby cannot suckle from one or both breasts, the breast milk must be removed by **expression**, to enable production to continue.

This local control of breast-milk production is especially important after the first few weeks, when the level of prolactin decreases.

**Key point:** For a mother to produce enough milk, her baby must suckle often and remove the milk. Her breasts will respond and produce as much milk as the baby takes.

If a baby cannot suckle, then the mother can remove her milk by expression. This also helps to keep up her milk production.




To remove the milk efficiently, it is necessary for the baby to suckle in the right way. This diagram shows how a baby takes the breast into his mouth to suckle.

Notice these points:

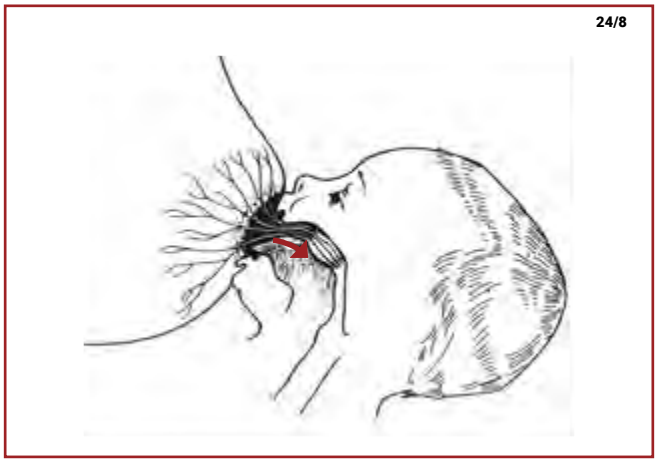
- The baby has taken much of the areola and the underlying tissues into his mouth.
- The larger ducts are included in these underlying tissues.
- The baby has stretched the breast tissue out to form a long "teat".
- The nipple forms only about one third of the "teat".
- The baby is suckling from the breast, not the nipple.

Notice the position of the baby's tongue:

- The baby's tongue is forward, over the lower gums, and beneath the larger ducts.
- The baby's 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 their mouth in this way, we say that the baby is well attached to the breast. The baby can remove breast milk easily and we say that the baby is suckling effectively.

When a baby suckles effectively, their mouth and tongue do not rub the skin of the breast and nipple.




This is the same baby as in the previous diagram, and you can see what happens to his tongue when he suckles.

The arrow shows a wave going along the baby's tongue from the front to the back. The wave presses the "teat" of breast tissue against the baby's hard palate. This presses milk out of the larger ducts into the baby's mouth, from where he swallows it.

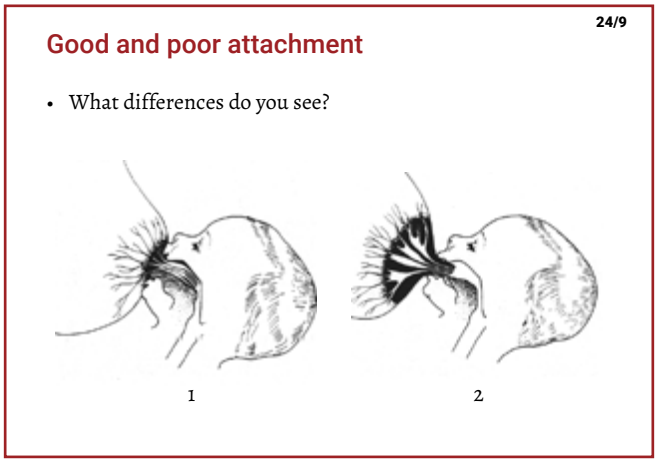
So a baby does not simply suck milk out of a breast, like drinking through a straw.

Instead:

- The baby uses suction to stretch out the breast tissue to form a teat, and to hold the breast tissue in his mouth.
- The oxytocin reflex makes breast milk flow and fill the ducts beneath the areola.
- The action of the baby's tongue presses the milk from the ducts into their mouth.

When a baby is well attached, they remove breast milk easily, and it is called effective suckling. You can often see and hear a baby swallowing the milk when suckling effectively.

It is also helpful to understand that when a baby suckles in this way, the baby's mouth and tongue do not rub the skin of the breast and nipple.




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

The most important differences to see in picture 2 are:

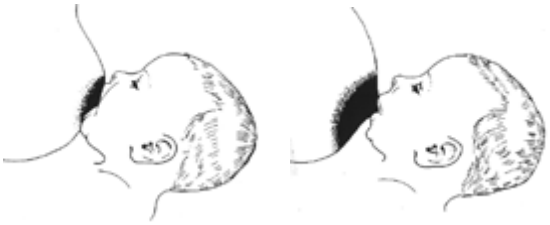
- Only the nipple is in the baby's mouth, not the underlying breast tissue.
- The larger ducts are outside the baby's mouth, where his tongue cannot reach them.
- The baby's tongue is back inside his mouth, and not pressing on the larger ducts.

The baby in picture 2 is poorly attached. He is "nipple sucking", and cannot suckle effectively.

24/10

## Attachment (outside appearance)

- What differences do you see?



1 2

This picture shows the same two babies from the outside.

In picture 1, you can see more of the areola above the baby's 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.

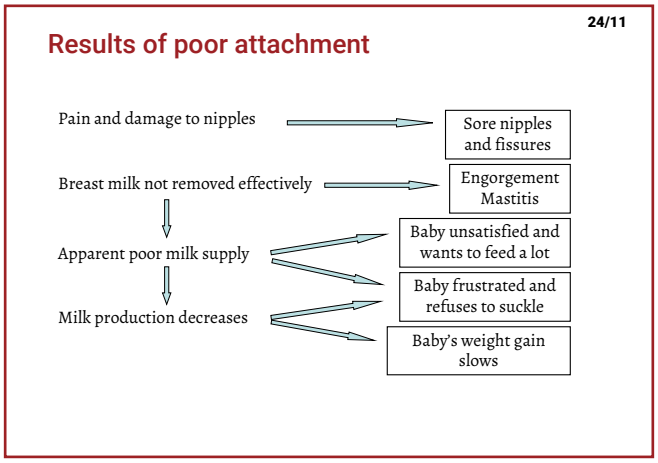
These are some of the signs that you can see from the outside that tell you that a baby is well attached to the breast.

**Key point:** 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 the bottom lip.

There are other differences that you can see when you look at a real baby, which you will learn about in the next sessions.

THE FOUR KEY SIGNS OF GOOD ATTACHMENT are:

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.




This diagram summarizes what may happen when a baby is poorly attached to the breast.

## The baby may cause pain and damage to the nipple

If a baby is poorly attached, and "nipple sucks", it is painful for the mother. Poor attachment is the most important cause of sore nipples.

As the baby sucks hard to try to get milk, they pull the nipple in and out. This makes the nipple skin rub against the baby's mouth. If a baby continues to suck in this way, it can damage the nipple skin and cause cracks (also known as **fissures**).

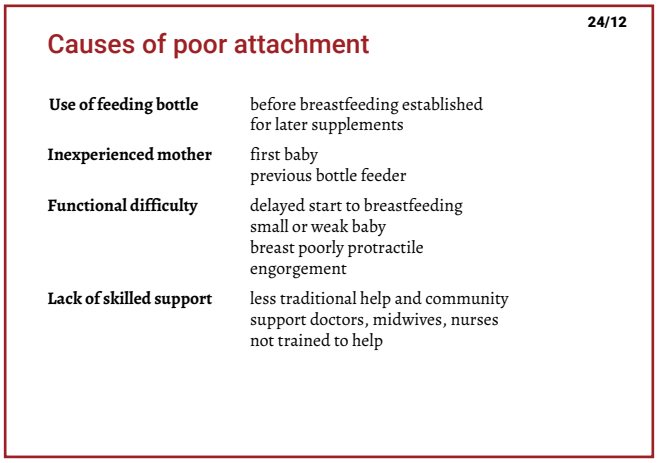
Suction pressure on the tip of the nipple can cause a fissure across the tip. Rubbing the skin at the base of the nipple can cause a fissure around the base.

## The baby does not remove breast milk effectively

If a baby is poorly attached, they do not remove breast milk effectively. The way that the baby suckles is called **ineffective suckling**. These can be the results:

- The breasts may become engorged.
- The baby may be unsatisfied, because the breast milk comes slowly.
- The baby may cry a lot, and want to feed often, or for a very long time at each feed.
- The baby may not get enough breast milk.
- The baby may be so frustrated that they refuse to feed altogether.
- The baby may fail to gain weight.
- If the oxytocin reflex works well, the baby may get enough breast milk at least for a few weeks, by feeding very often. But it can exhaust the mother.
- The breasts may make less milk, because the milk is not removed.

So poor attachment can make it **seem** as though a mother is not producing enough milk. In other words, she has an apparent poor milk supply. Then, if the situation continues, her breasts may really make less milk. In either situation, the result may be poor weight gain in her baby and breastfeeding failure.




This slide summarizes the common causes of poor attachment to the breast.

## Use of a feeding bottle

If a baby feeds from a bottle before breastfeeding is established, they may have difficulty suckling effectively from the breast. Some babies who start bottle feeds after a few weeks may also begin to suckle ineffectively. Skilled help is needed to overcome the problem. Sucking on a pacifier in the first few weeks may also interfere with breastfeeding.

## 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. Sometimes mothers are in a hurry or lack patience to wait for the baby to attach well.

## Functional difficulty

Some situations can make it more difficult for a baby to attach well to the breast.

For example:

- if there has been a delay in starting to breastfeed, for example, if the mother and baby were separated after birth, and did not have skin-to-skin contact in the first hour after birth
- if a baby is very small or weak
- if a mother's nipples and the underlying tissue are poorly protractile (difficult to stretch out to form a "teat" (see Sessions 19 and 28: Breast conditions 1 and 2)
- if her breasts are engorged.

Mothers and babies can breastfeed in all these situations, but they may need extra skilled help to succeed.

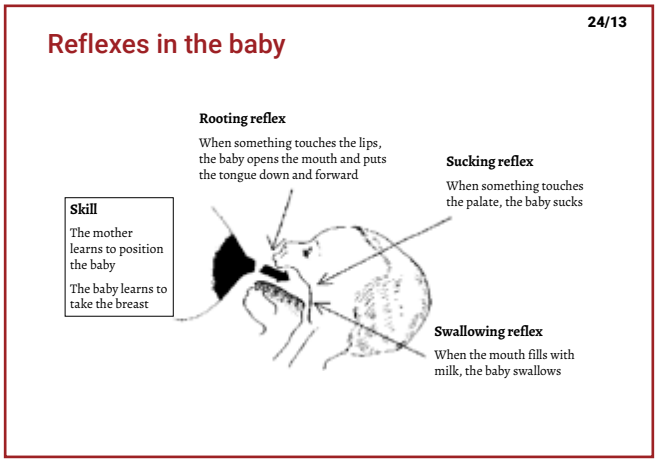
## Lack of skilled support

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, nurses and midwives, may not have been trained to support mothers to breastfeed. Those who are trained may not have enough time to give as much help as mothers need.




Earlier diagrams showed reflexes in a mother, but it is also useful to know about the reflexes in a baby. A reflex happens automatically, in response to a certain stimulus.

There are three main reflexes concerned directly with suckling – the **rooting reflex**, the **sucking reflex** and the **swallowing reflex**.

When something touches a baby's lips or cheek, the baby opens their mouth and may turn the head to find it. The baby puts the tongue down and forward. This is the "rooting" reflex. It should normally be the breast that the baby is "rooting" for.

When something touches a baby's palate, they start to suck it. This is the sucking reflex.

When the baby's mouth fills with milk, they swallow. This is the swallowing reflex.

Babies are born with many other reflexes, including putting their hands to their mouths and "massaging" the mother's breast with their hands. A baby also makes stepping and crawling movements when put on the mother's abdomen or chest, which help the baby to get to the breast to suckle. (See in SESSIONS 79 and 80: HEALTH-CARE PRACTICES 1 and 2 how a baby crawls to the breast after delivery.)

A mother also has an instinct to hold her baby at the breast. If she holds them close to the breast and facing it, this stimulates the reflexes in the baby that help them to attach well to the breast.

With many mothers and babies, this happens easily and naturally. Most healthy term infants can attach themselves to the breast instinctively. The mother and baby must be kept together in a comfortable, supportive environment that helps the reflexes. Mothers need to learn how to avoid uncomfortable positions and ways of holding the baby that inhibit the reflexes. Health workers need not interfere if things are going well. But they should be aware of those mothers who do need help; for example, if they are in any of the situations mentioned in the diagram RESULTS OF POOR ATTACHMENT, or if they are in an uncomfortable position that hinders the process. Also, some babies need more help than others to learn to attach and suckle effectively.

Notice in the drawing that the baby is not coming straight towards the breast. He is coming up to it from below the nipple. A baby should, in fact, approach the breast with the nose opposite the nipple. This helps them to attach well because:

- The nipple is aiming towards the baby's palate, so it can stimulate the sucking reflex.
- The baby's lower lip is aiming well below the nipple so the baby can get their tongue under the larger ducts.

# Notes

# Notes (contd)

# Session 25

## Assessing a breastfeed 2

### Objectives

After completing this session, participants will be able to:

- explain the contents and arrangement of the JOB AID: BREASTFEED OBSERVATION
- describe how to assess a breastfeed using the JOB AID: BREASTFEED OBSERVATION
- describe how to recognize a mother who needs help

### Introduction

Assessing a breastfeed helps you to decide whether 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. This is just as important a part of clinical practice as other kinds of examination, such as looking for signs of dehydration, or counting how fast a child is breathing. There are some things you can observe when a baby is not breastfeeding. Other things you can only observe if a baby is breastfeeding.

#### HOW TO ASSESS A BREASTFEED

1. Look at the mother herself
2. Look at how the mother holds her baby
3. Look at the baby's condition
4. Observe how the baby responds to the breast
5. Observe how the mother holds her breast for the baby
6. Observe the baby's attachment and suckling
7. Notice how the breastfeed finishes
8. Observe the condition of the mother's breasts

# Notes on assessing a breastfeed

## The mother herself

If a mother looks happy and comfortable, this helps breastfeeding.

If she is miserable or uncomfortable, it makes breastfeeding more difficult.

Touching and talking to her baby are signs of **bonding**, which means that breastfeeding is more likely to go well.

Also notice the mother's age, general health, nutrition and socioeconomic status, which may tell you whether it is easy or difficult for her to care for and breastfeed her baby. She may be carrying a feeding bottle in her bag. She may wear tight clothes that make is difficult to breastfeed. However, clothes may be misleading if women dress up to go to a health centre.

There may be other family members present, such as the father or grandmother. You may be able to observe how they relate to the mother and baby.

## How the mother holds her baby

It is easier for the baby to attach to the breast if the mother supports the baby's whole body. Supporting only the baby's head and shoulders makes it more difficult. However, supporting the whole body is less important after the first few months, when the baby has more control.

If the mother is calm and relaxed, this helps milk flow. If she is nervous and, for example, she shakes or poker her baby, this can interfere with suckling and breast milk flow.

> **Key point:** The four key signs of good positioning are summarized by: the baby is **straight**, **close**, **supported** and **facing the breast**. We will discuss them more in Session 27: Positioning a baby at the breast 2.

## The baby's condition

Notice if the baby looks:

- average size or very small or large
- generally healthy and hydrated
- well nourished or poorly nourished
- alert, asleep or unconscious
- obviously abnormal (for example with cleft lip).

Notice signs of conditions that can interfere with breastfeeding:

- blocked nose
- difficult breathing
- thrush
- jaundice
- dehydration
- tongue tie
- a cleft lip or palate.

## How the baby responds to the breast

A young infant may "**root**" or search for the breast. The baby turns the head from side to side, opens the mouth, puts the tongue down and forward, and reaches for the breast. This shows that the baby is hungry and wants a feed.

An older baby may turn and reach for the breast with their hand. This shows that the baby wants to breastfeed.

A baby may cry or pull back or turn away from their mother. This response shows that a baby does not want to breastfeed, and that there is a problem.

A baby may be restless and slip off the breast or refuse to feed. This may mean that the baby is not well attached and is not getting the breast milk.

A baby may be calm during a feed, and relaxed and contented after a feed. These are signs that the baby is getting enough breast milk.

## How the mother holds her breast for the baby

The mother may hold her breast very close to the **areola**. Her fingers may get in the way of the baby suckling, so it is more difficult to take enough of the breast into the baby's mouth. The pressure of her fingers may block the milk ducts.

She may hold her breast with the "**scissor**" **hold**. The "scissor" hold is when she holds the nipple and areola between her index finger above and middle finger below. If her fingers are close to the nipple, they may get in the way of the baby suckling, and block the milk ducts.

She may try to pinch up her nipple to push it into her baby's mouth. She may lean forward to do this. This is not an effective way of getting a baby to attach, and pinching the nipple makes it the wrong shape for a baby and may block the milk ducts. If she leans forward, she may get back pain.

The mother may hold her breast back from her baby's nose with her finger. This is not necessary, and may pull the nipple out of the baby's mouth.

She may put her whole hand flat against her chest wall beneath the breast, supporting the breast with her forefinger. This is a helpful way to hold her breast, to enable the baby to attach easily. She can put her thumb above the breast a long way back from the nipple, to shape her breast. This is sometimes called the "C-hold".

Some mothers do not need to hold the breast at all, especially when the breasts are not too large. It is not necessary to correct the breast hold if the baby is well attached and suckling effectively, provided the mother's fingers are not too close to the nipple.

## How the baby attaches and suckles

This is described in Session 24: how breastfeeding works 2.

### Signs of good attachment

- The baby's mouth is wide open.
- The baby's lower lip is turned outwards.
- The baby's chin is touching the mother's breast.
- More areola is seen above the baby's top lip than below the bottom lip.

### Signs of poor attachment

- The baby's mouth is not wide open.
- The baby's lips point forward or the lower lip is turned in.
- The baby's chin is not touching the breast.
- More areola is seen below the baby's bottom lip than above the top lip, or the same amount can be seen above and below.

### Signs of effective suckling

The baby takes slow deep sucks and waits for the ducts to fill up again. Then the baby takes a few quick sucks to start the milk flow. As the milk flows, the sucks become deeper and slower again. You may see or hear swallowing. The baby's cheeks are round.

These signs of **effective suckling** show that the baby is getting plenty of breast milk.

### Signs of ineffective suckling

The baby takes quick shallow sucks all the time.

The baby may make smacking sounds as they suck.

The baby's cheeks may be tense or pulled in as they suck.

These signs of ineffective suckling show that the baby is not getting much breast milk.

## How the breastfeed finishes

### The baby may end the feed themself

The baby releases the breast themself, and looks satisfied and sleepy, showing that they have taken enough milk from the breast. The baby may or may not want to suckle from the other side too.

### The mother may end the feed before the baby has finished

A mother sometimes takes her baby off her breast as soon as they pause, because she thinks the baby has finished, or because she wants to make sure that the baby suckles from the other side as well, or because she wants to do something else. A baby who is taken off the breast before they have finished may not get enough hindmilk. The baby may want to feed again soon.

### How long the breastfeed continues

The exact length of time is not important. Feeds normally vary very much in length, from a few minutes to half an hour. If all or most breastfeeds are very long (more than about half an hour) or very short (less than about 4 minutes), it may mean that there is a difficulty, perhaps with attachment. However, in the first few days, or with a low-birth-weight baby, breastfeeds may be very long with many pauses, and this is normal.

## The condition of the mother's breasts

When you observe a breastfeed, look also for:

- Signs of an **active oxytocin reflex**.
- The size and shape of the mother's breast. She may worry that they are too large or small.
- The form of her nipples, if they stand out or look flat, inverted or very large.
- Breasts that are full before and soft after a feed, showing that the baby is removing breast milk.
- Breasts that are very full or engorged all the time, showing that the baby may not be removing breast milk effectively.
- Healthy-looking skin of the nipples and breast, or red skin or fissures, which show that there is a problem.
- A nipple that looks squashed or with a line across the tip or down the side as the baby releases the breast. This is a sign of poor attachment (see SESSIONS 19 and 28: BREAST CONDITIONS 1 and 2).

> **Key point:** Always ask the mother how the breastfeed feels to her.

- If it is comfortable and pain free, then the baby is probably well attached.
- If it is uncomfortable or painful, the baby is probably not well attached, **even if the signs look good.**

## The Job aid: Breastfeed observation

The Job aid: Breastfeed observation helps you as you practise assessing a breastfeed. It lists and summarizes the signs described in the earlier part of the session.

The signs are in six groups: general signs of the mother, and of the baby; condition of the breasts; the baby's position; the baby's attachment; and suckling. There are three signs each for mother and baby, and four signs in each of the other groups.

Try to remember the groups, as it will help you to remember the signs with each group. Then, later on, when you have had more practice, you will not need to use the form all the time.

Notice that the signs on the left all show that breastfeeding is going well. The signs on the right indicate a possible difficulty.

Beside each sign is a box to mark with a tick if you have seen the sign in the mother and baby that you are observing. If you do not see a sign, you should make no mark.

If all 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.

# Job aid: Breastfeed observation

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# Notes

# Notes (contd)

# Session 26

## Observing a breastfeed

## Objectives

After completing this session, participants will be able to:

- recognize THE FOUR KEY SIGNS OF GOOD ATTACHMENT
- recognize good and poor positioning of the baby according to THE FOUR KEY SIGNS OF GOOD POSITIONING
- assess a breastfeed using the JOB AID: BREASTFEED OBSERVATION
- recognize a mother who needs help, using the JOB AID: BREASTFEED OBSERVATION

## Introduction

In this session, you look at a series of slides of babies breastfeeding, and practise recognizing the signs of good or poor attachment and positioning, and deciding whether the babies are well or poorly attached. You practise using the JOB AID: BREASTFEED OBSERVATION.

Remember that there are FOUR KEY SIGNS OF GOOD ATTACHMENT:

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.

> **Key point:** To say that a baby is well attached, all four of the signs must be good. If any ONE of the signs is NOT good, then the baby is poorly attached.

You may also see that the baby's cheeks are rounded or pulled in. Rounded cheeks are a sign of **effective suckling**. If the baby's cheeks are pulled in, it is a sign of **ineffective suckling**.

You may see some signs that tell you whether the baby's position is good or poor.

You cannot see all of the signs in the slides. For example, you cannot see signs with movement such as suckling in still photographs. If the picture is a close-up, you may not see the position of a baby's body clearly. Observe the signs that are clear, and do not worry about signs that you cannot see.

## When you see real mothers and babies:

- Look for all the signs.
- Look at the baby's suckling. If a baby takes slow deep sucks, sometimes pausing, they are suckling effectively and are probably well attached.
- Ask how breastfeeding feels to the mother. If it is comfortable and pain free, the baby is probably well attached. If it is uncomfortable or painful, the baby is probably poorly attached.
- Ask about the baby's general health and their growth and behaviour. If the baby is satisfied, and growing well, they are probably suckling effectively.

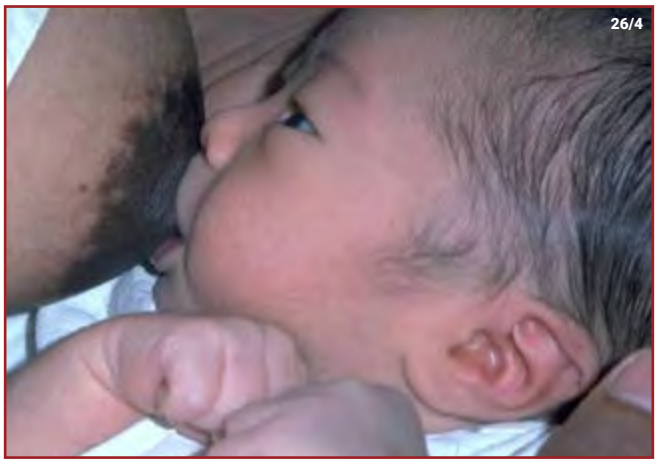
## Slide 26/2


- Signs that you can see clearly are:
  - The baby's mouth is quite wide open.
  - The baby's lower lip is turned outwards.
  - The baby's chin is almost touching the breast.
  - There is more areola above the baby's top lip than below the bottom lip.
- Other signs:
  - The baby's cheeks are round.
  - The baby is close to the breast, and facing it.
- These signs show that the baby is **well attached** and **well positioned** at the breast.

## Slide 26/3


- Signs of attachment:
  - The baby's mouth is pointing forward.
  - The lower lip is partly turned outwards.
  - The baby's chin is not touching the breast.
  - It is difficult to see the areola clearly.
- Other signs:
  - The baby's cheeks are pulled in.
  - This baby is **poorly attached**.

## Slide 26/4

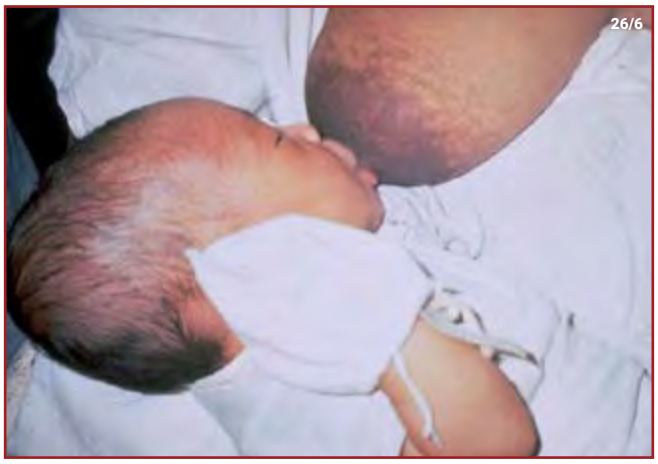



- Signs of attachment:
  - The baby's mouth is not wide open, the lips are pointing forward.
  - The baby's lower lip is turned outwards.
  - The baby's chin is not touching the breast.
  - There is as much or more areola below the baby's mouth as above it
- Other signs:
  - The baby's cheeks are round.
  - The baby is not close to the breast.
  - The position of the baby's hands shows that the body is twisted away, and not facing the mother.
- This baby is **poorly attached** and **poorly positioned**.
  - The baby looks as though he is feeding from a bottle.

## Slide 26/5

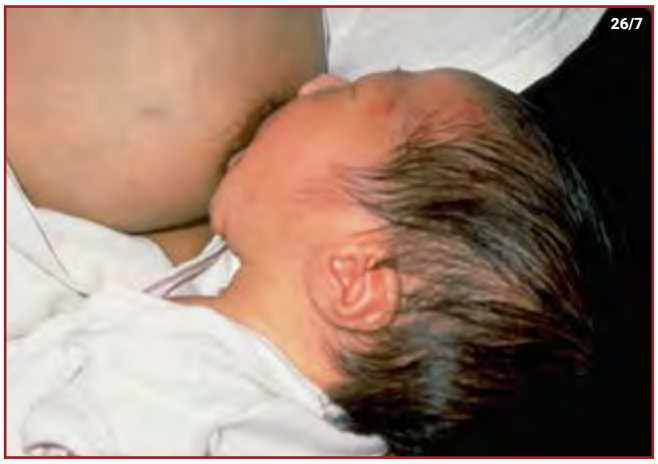

- Signs of attachment:
  - The baby's chin is touching the breast.
  - There is a little areola above the baby's mouth.
  - As the baby is very close to the breast, it makes it difficult to see many other signs.
  - It is difficult to see the baby's mouth, but the little crease (fold) in his chin suggests that his mouth is wide open.
  - You cannot see the baby's lower lip (difficult if the baby is very close to the breast).
- Other signs:
  - The baby's cheek is round and not pulled in (though it is somewhat flattened against the mother's breast).
  - The position of the baby's hand shows that he is facing the mother and not twisted.
- This baby is **well attached** and **well positioned**.

## Slide 26/6




- Signs of attachment:
  - The baby's mouth is not wide open.
  - The lower lip is pointing forward, not fully outwards.
  - The baby's chin is not touching the breast.
  - There is as much areola below the baby's bottom lip as above the top lip.
- Other signs:
  - The baby's cheek is slightly pulled in.
  - The baby's body is twisted away, and not close to the mother's.
- This baby is **poorly attached** to the breast.

## Slide 26/7

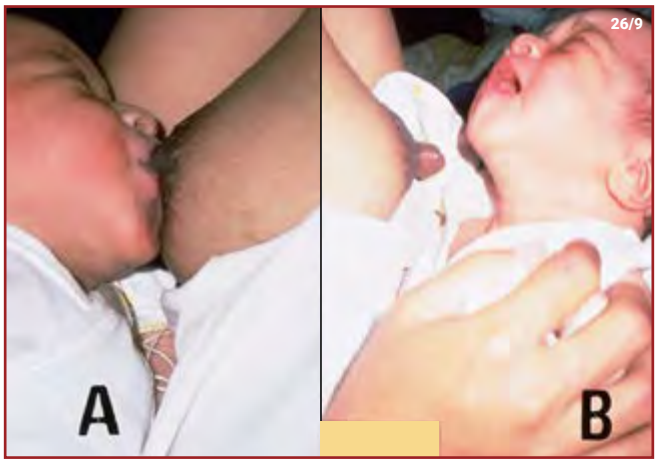



- Signs of attachment:
  - The baby's mouth is wide open.
  - The baby's lower lip is turned outwards.
  - The baby's chin is close to the breast.
  - There is more areola above the baby's mouth than below it.
- Other signs:
  - The baby's cheek is round.
  - The baby's body is turned slightly away from the mother and her neck is slightly twisted, but this is not very clear.
  - This baby is **well attached**, but her **body position is not very good**.

## Slide 26/8


- Signs of attachment:
  - The baby's mouth is quite wide open.
  - The baby's lower lip is turned in and not outwards.
  - The baby's chin is touching the breast.
  - There is more areola above the baby's top lip than below the bottom lip.
- Other signs:
  - The baby's cheek is round.
  - The baby is facing the breast.
  - The baby's head and body are straight and the baby is facing the breast.
- This baby is **not well attached**.
  - His lower lip is turned in, so he is not well attached, even if the other three signs are good.

## Slide 26/9

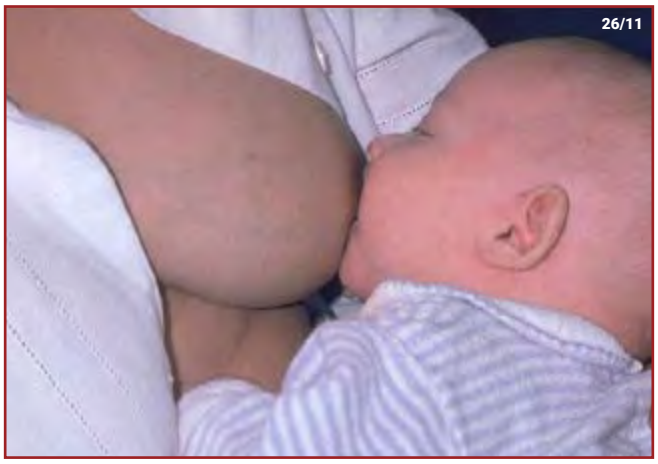



- Picture A shows a baby suckling, and picture B shows the same baby a few seconds later. The baby has stopped suckling.
- Signs of attachment in picture A:
  - The baby's mouth is not wide open, it is quite closed.
  - The baby's lower lip is not turning outwards.
  - The baby's chin is close to the breast.
  - There may be more areola above the baby's mouth than below it.
- Other signs:
  - The baby's cheek is pulled in.
  - It is difficult to see the baby's body position.
- Signs that you can see in picture B are:
  - The baby is pulling away from the mother's breast.
  - The baby is crying with frustration.
  - The mother's nipple is quite large and long.
- Picture A shows that this baby was **poorly attached** to the breast, and was not getting the milk effectively, so she pulled away in frustration, as shown in Picture B.

## Slide 26/10

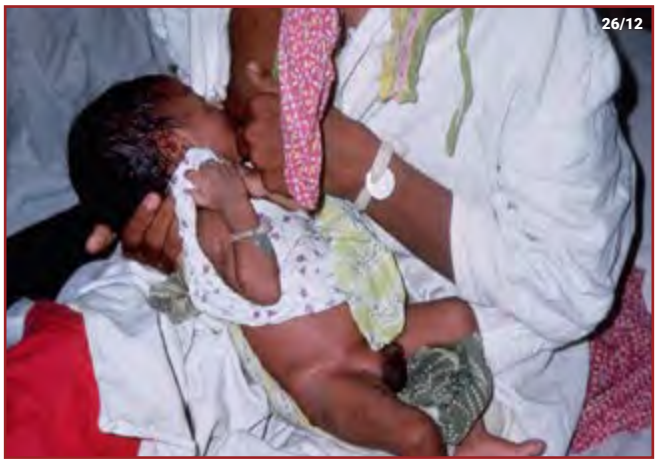

- Signs of attachment:
  - The baby's mouth is not wide open.
  - The baby's lower lip is not turned outwards.
  - The baby's chin is touching the breast.
  - There is more areola below the baby's mouth than above it.
- Other signs:
  - The baby's cheeks look round.
  - The baby is close to the breast, and facing it.
- This baby is **not well attached**.

## Slide 26/11




- Signs of attachment:
  - The baby's mouth is wide open.
  - The baby's lower lip is turned outwards (though it is difficult to see).
  - The baby's chin is touching the breast.
  - There is more areola above the baby's mouth than below it.
- Other signs:
  - The baby's cheek is round (there is a dimple, but the cheek is not pulled in).
  - The baby is close to the breast and facing it.
- This baby is **well attached** and **well positioned**.

## Slide 26/12




- Signs of attachment:
  - These are difficult to see, because the picture is not taken closely enough.
  - However, the baby's mother is holding her breast very close to the nipple, so it is likely that the baby is poorly attached.
- Other signs:
  - The position of the baby's hands show that his body is turned away from the mother's, and is not close to her.
  - The baby's neck is twisted.
  - The baby's mother is supporting only the head and not the whole body.
  - The baby is only a few days old, so it would help if she supported the whole body.
  - The mother has no back support. She is leaning forward over the baby, and may be tense and uncomfortable.
- This baby is **poorly positioned**, and the mother is not comfortable, which makes holding the baby more difficult.

## Exercise 26.A Using the Job aid: Breastfeed observation

Practise filling in the Job aid: Breastfeed observation for the following four mothers and babies. You will not be able to tick all the boxes. Tick those for which you can see the signs. Most will be for the sections Baby's position and Baby's attachment.

### Slide 26/13


### Slide 26/14

## Slide 26/15


## Slide 26/16

## JOB AID: BREASTFEED OBSERVATION – SLIDE 26/13

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# Job aid: Breastfeed observation – Slide 26/14

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# JOB AID: BREASTFEED OBSERVATION – SLIDE 26/15

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# Job aid: Breastfeed observation – Slide 26/16

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# Notes

# Session 27

## Positioning a baby at the breast 2

## Objectives

After completing this session, participants will be able to:

- explain THE FOUR KEY SIGNS OF GOOD POSITIONING
- explain the different positions for a mother to breastfeed
- explain different ways to hold a baby
- describe how a mother should support her breast for feeding
- explain the common mistakes of positioning a baby
- help a mother to hold and position her baby at the breast, by demonstrating with a doll

## Introduction

There are three main kinds of mother whom you may need to help:

- New mothers, who are breastfeeding for the first time
- Mothers who have some difficulty with breastfeeding, or who use a poor technique
- Mothers who artificially fed a previous baby but now want to breastfeed.

### Always observe a mother breastfeeding before you help her

- Take time to see what she does, so that you can understand her situation clearly. Do not rush to make her do something different. Notice other things that may affect breastfeeding, such as her clothing, or the presence of men looking at her.

### Give a mother help if she had difficulty

- All mothers who have difficulties definitely need help. However, some mothers may not have a difficulty at present, but they use a poor technique that can lead to difficulties. Help these mothers, especially in the first 2 months before breastfeeding is fully established. However, some mothers with babies older than about 2 months breastfeed satisfactorily in positions that would make difficulties for younger babies. There is no point trying to change an older baby's position if they are getting breast milk effectively and growing well, and the mother is comfortable.

### 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 what you mean.

### Make sure that the mother 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 the baby to attach effectively, if the mother cannot.

# Helping a mother to position her baby at her breast

Greet the mother, introduce yourself, and ask her name and her baby's name. Ask her how she is and ask one or two open questions about how breastfeeding is going.

## Assess a breastfeed

Ask whether you may see how her baby breastfeeds, and ask her to put the baby to her breast in the usual way. Observe her breastfeeding for a few minutes (if the baby has had a feed recently you may have to arrange to see her later).

If you decide that she needs help to improve her baby's attachment:

- First say something encouraging such as: "He really wants your breast milk, doesn't he?"
- Then explain what might help and ask whether she would like you to show her. For example say something such as: "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.
- Make sure the mother is sitting or lying down, in a comfortable and relaxed position.

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. You need to be at the side of the mother so that your hand is free to guide her hand if necessary.

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 SIGNS OF GOOD POSITIONING are clear:

1. The baby's head and body should be in a straight line
2. The mother should hold the baby's body close to hers
3. She should support the baby's whole body, and not just the head and shoulders
4. The baby should face the breast, approaching it with the nose opposite the nipple

These four key points are the same as the points that you learnt to observe in the JOB AID: BREASTFEED OBSERVATION in the section BABY'S POSITION. Explain each point in turn. If you have a doll, you can demonstrate to the mother using the doll. If she cannot copy you, then you may have to guide her hand to do what you are showing her.

**For point 1 - Baby's head and body in line**: a baby cannot suckle or swallow easily if their head is twisted or bent.

**For point 2 – Baby held close to mother's body**: a baby cannot attach well to the breast if they are far away from it. The baby's whole body should almost face their mother's body. The baby should be turned away just enough to be able to look at her face. This is the best position for the baby to take the breast, because most nipples point down slightly. If the baby faces the mother completely, they may fall off the breast.

**For point 3 – Baby's whole body supported**: the whole body should be supported, with the mother's arm along the baby's back. This is particularly important for neonates 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 their bottom. Holding the baby's bottom may result in her pulling them too far out to the side, so that their head is in the crook (bend) of her arm. The baby then has to bend their head forward to reach the nipple, which makes it difficult for them to suckle.

**For point 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.

Review the steps 1, 2, 3 and 4 using either right or left hand and arm to show them: (1) slap the hand on the opposite forearm (demonstrating where the baby's head lies); (2) slap the palm and whole arm against the stomach (demonstrating that the baby is close to the mother and turns towards the mother); (3) slap the arm on the opposite palm (demonstrating that the mother supports the buttocks, not holds); and (4) swing the hand and arm behind the waist (demonstrating that the baby's hand and arm should be behind the mother).

Show her how to support her breast with her hand to offer it to her baby:

- 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 (see **Fig. 27.1**).
- 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 (see **Fig. 27.2**).
- If a mother has large and low breasts, support may make attachment easier. If she has small and high breasts, she may not need to support them.

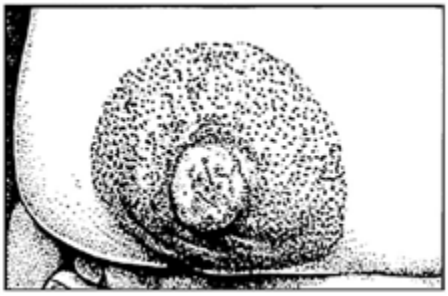


**Fig. 27.1** Supporting the breast with fingers against the chest wall

**Fig. 27.2** Holding the breast close to the nipple and pinching

Explain or show her how to help the baby to attach

Explain how to use the baby's rooting reflex, to get the baby to open their mouth wide to take the breast themself. You cannot force a baby to take the breast. She should:

- Start with the baby's nose approaching her nipple, so that the baby approaches the breast from underneath the nipple.
- Touch her baby's lips with her nipple, so that the baby opens the mouth, puts out the tongue, and reaches up.
- Wait until her baby's mouth is opening wide, before she moves the baby onto her breast. The baby's mouth needs to be wide open to take a large mouthful of breast.
- Keep her back straight and bring her baby to her breast. She should not move herself or her breast to her baby.
- Aim her baby's lower lip below her nipple, with the nose opposite the nipple, so that the nipple aims towards the baby's palate, the tongue goes under the areola, and the chin will touch her breast.
- Hold the baby at the back of the shoulders – not the back of the head. Be careful not to push the baby's head forward.

Try not to touch the mother or baby if possible. But if you need to touch them to show the mother what to do, ask her permission and then:

- Put your hand over her hand or arm, and explain that you will be touching the baby through her.
- Hold the baby at the back of the shoulders – not the back of the head. Be careful not to push the baby's head forward.

Notice how she responds and ask her how her baby's sucking feels.

- If you improve a baby's poor attachment, a mother sometimes spontaneously says that it feels better.
- If she says that suckling is comfortable, and she looks happy, her baby is probably well attached.
- Look for 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 the mouth to get the milk.
- If she is having difficulty in one position, try to help her to find a different position that is more comfortable for her. For example, in one of the positions described below.
- Unfortunately, sometimes a mother goes back to her old position for holding the baby. Make sure that she knows what to do, and leave her to practise. Her position may improve, especially if the baby learns how to attach well and get the milk.
- Use COUNSELLING CARD 3: GOOD ATTACHMENT to review with the "mother" the signs of good attachment.

## Other ways for a mother who is sitting to position a baby

**Fig. 27.3** A mother holding her baby in the underarm position

Useful for:
- twins
- blocked duct
- difficulty attaching the baby
- very small or low-birth-weight babies

**Fig. 27.4** A mother holding her baby with the arm opposite the breast

Useful for:
- very small or low-birth-weight babies
- sick babies
- blocked duct

Help the "mother" to hold her baby in the underarm position (see **Fig. 27.3**).

- Exactly the same four key points are important for positioning.
- She may need to support the baby with pillows at her side.
- The baby's head rests in the mother's hand, but she does not push it at the breast.
- The underarm position is useful:
  - for twins
  - if she is having difficulty attaching her baby across the front
  - to treat a blocked duct (see SESSIONS 19 and 28: BREAST CONDITIONS 1 and 2)
  - for very small or low-birth-weight babies
  - if the mother prefers it.

Show the "mother" how to hold her baby with the arm opposite to the breast (see **Fig. 27.4**).

- Exactly the same four key points are important for positioning.
- If she needs to support her breast, she can use the hand on the same side as the breast.
- The mother's forearm supports the baby's body.
- Her hand supports the baby's head, at the level of his ears or lower. She does not push at the back of the baby's head.
- This way of holding a baby is useful:
  - for very small or low-birth-weight babies
  - for sick or disabled babies
  - if the mother prefers it.

## Helping a mother who is lying down

Help the "mother" to lie down in a comfortable, relaxed position, on one side.

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.

Show her how to hold her baby. Exactly the same four key points on positioning are important for a mother who is lying down.

- The baby's body should be **straight**, **close** to the mother, **supported** and **facing** the breast.
- 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.
- It may be helpful to put a pillow or a roll of cloth at the baby's back to keep them in position.

Breastfeeding lying down (see **Fig. 27.5**) is useful:

- when a mother wants to sleep, so that she can breastfeed without getting up
- soon after a caesarian section, when lying on her back or side may help her to breastfeed her baby more comfortably.

A common reason for difficulty attaching when lying down, is that the baby is too "high" (near the mother's shoulders) and the baby's head has to bend forwards to reach the nipple.

**Fig. 27.5** A mother breastfeeding her baby lying down

## Helping a mother to use a reclining position

Help the mother into a reclining position, leaning back, supported by pillows. She needs to lean back far enough for the baby to be fully supported on her reclining body, but she should not be completely flat. The baby can be naked and lie prone on her naked chest, for skin-to-skin contact. This is very useful if a baby has difficulty attaching at the breast, or if the baby is restless and crying. The position often calms the baby, and they find their own way to the breast, in the same way as a neonate. (The reclining position is sometimes called **"biological nurturing"**.)

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 their mouth so that they can suckle effectively.

- With the mother standing up.
- If the baby has difficulty attaching to the breast, it sometimes helps if the mother lies on her front, propped on her elbows, with the baby underneath her.
- If she has very large nipples, it may help to lean over the baby and offer the nipple from that position.
- If she has an oversupply of milk (and the baby gets too much milk too fast), lying on her back with the baby on top of her sometimes helps (see SESSION 30: REFUSAL TO BREASTFEED).

## Some common mistakes made by mothers

There are some ways in which a mother holds a baby that can make it difficult for the baby to attach to her breast and suckle effectively (see SESSIONS 13 and 25: ASSESSING A BREASTFEED 1 and 2).

A mother may hold her baby:

- Too high (for example, sitting with the knees very high)
- Too low (for example, with the baby unsupported, so she has to lean forward)
- Too far to the side (with the baby's head in the "crook" of the arm). A baby may be too far to the side because the mother holds her baby's bottom in her hand on the same side as the breast, which has the effect of pulling the baby to that side.

If a mother holds her baby too high, or too low, or too far to the side, the baby's mouth is not opposite her nipple. It will be difficult for the baby to take the breast into their mouth.

A baby may be too far out to the side because the mother holds her baby's bottom in her hand on the same side as the breast, and pulls the baby to that side. Instead, her hand should be along the baby's back, so that their head rests on her forearm, not in the crook of the arm.

A mother may support her breast:

- With the fingers and thumb close to the areola (see **Fig. 27.2**).
- Pinching up the nipple or areola between the thumb and fingers, and trying to push the nipple into the baby's mouth.
- With the **"scissor" hold** (index finger above and middle finger below the nipple).

Holding the breast in these ways makes it difficult for a baby to attach and suckle effectively. The "scissor" hold can block milk flow.

A mother may hold her breast back from the baby's nose with a finger, to allow the baby to breathe. This is not necessary, and can pull the nipple out of the baby's mouth. A baby can breathe quite well without the breast being held back.

**Key point:** If you think that the baby's nose is too close to the breast, ask the mother to pull the baby's bottom in closer to her body.

**Key point:** One reason why a baby's nose may be very close to the breast is if the baby's body is too far out to the side, so that the baby has to bend their head forward to reach the nipple. Help the mother to reposition the baby so that their head is on her forearm. The baby will bend their head back and bring their chin closer to the breast.

## Some common mistakes made by health workers

Some health workers try to put the baby onto the breast, instead of helping the mother to put the baby on herself. Sometimes they press the back of the baby's head to force the baby to take the breast.

If you position and attach the baby for the mother, she does not learn how to position her baby herself, and she does not gain confidence.

If you put pressure on the back of a baby's head, the baby may react by pushing the head back. The natural reaction of a health worker is then to push the baby onto the breast more strongly. The baby may fight back, and this may cause the baby to refuse to breastfeed.

## Practise positioning a baby

You will now work in pairs to practise helping a mother to position her baby. One of you plays the mother, and one plays the health worker. Other participants in the group observe.

- If you are the mother:
  - Sit and hold the doll in the common way, across your front. Hold it in a poor position.
  - When the health worker asks you how breastfeeding is going, say that it is painful, and your nipples are sore, or think of another difficulty.
- If you are the health worker:
  - Follow all the steps in the box How to help a mother to position her baby on the next page.
  - Use a doll to demonstrate to the mother what you want her to do.
  - Use the Skills for listening and learning to talk to the mother.
- If you are observing:
  - Follow the steps in the box, and afterwards comment on the practice. Praise what the pair did well, remind them about steps that were left out, and discuss any weak points.

Each participant has a turn to play the part of the health worker helping 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 whether 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 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 the 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.

## The four key signs of good positioning

1. The baby's head and body are in line.
2. The baby is held close to the mother's body.
3. The baby's whole body is supported.
4. The baby approaches the breast, nose to nipple.

## The four key signs of good attachment

1. The baby's mouth is wide open.
2. The baby's lower lip is turned outwards.
3. The baby's chin is touching the mother's breast.
4. More areola is seen above the baby's top lip than below the bottom lip.

# Notes

# Notes (contd)

# Session 28

## Breast conditions 2

## Objectives

After completing this session, participants will be able to recognize and describe how to manage these common breast conditions:

- flat and inverted nipples
- engorgement
- blocked duct and mastitis
- sore nipples and nipple fissure

## Introduction

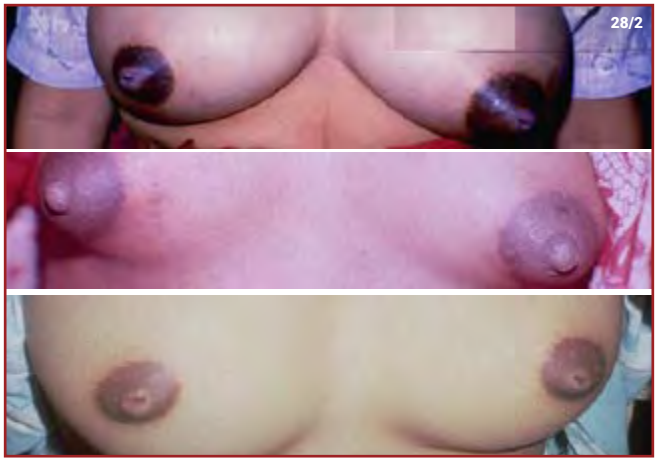
There are several common breast conditions that sometimes cause difficulties with breastfeeding:

- Flat or inverted nipples, and long or big nipples
- Engorgement
- Blocked duct and mastitis
- Sore nipples and nipple fissure

Diagnosis and management of these breast conditions are important, both to relieve the mother and to enable breastfeeding to continue. Treatment differs for some breast conditions if the woman is living with HIV. We will discuss these during the session.



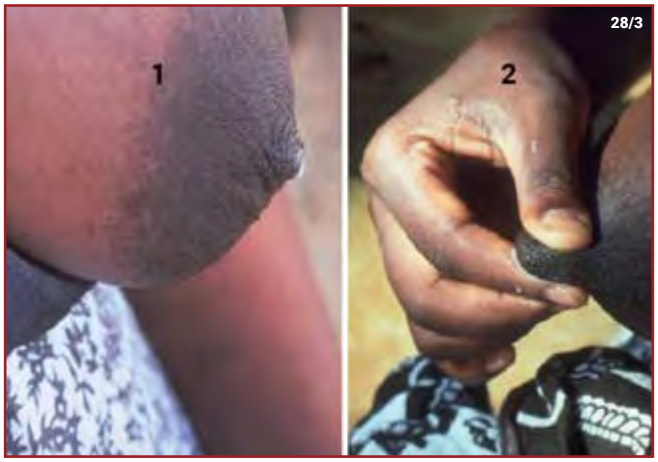
## Different breast shapes




These photos show 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. 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. Babies can breastfeed quite well from breasts of any size, with almost any shape of nipple. Remember also that a baby can attach poorly whatever the shape of their mother's nipple – for example if they have been given bottle feeds, or if there is no one to help their mother to improve her technique.

## Flat nipple and protractility




A doctor told the mother on picture 1 that her baby would not be able to suckle from this nipple. She lost confidence that she could breastfeed successfully.

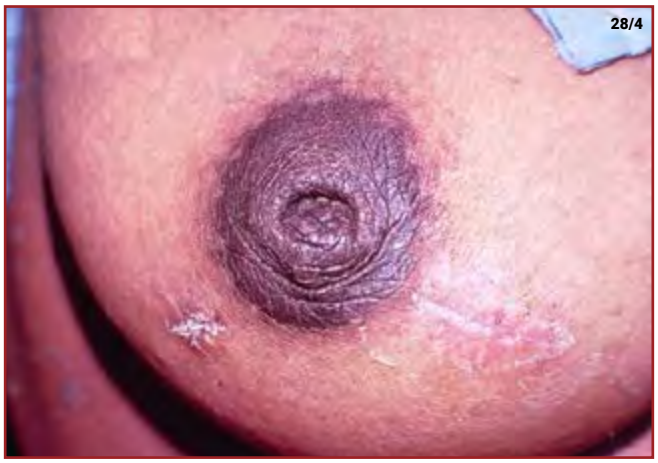
However, remember from Session 24 that a baby does not suck from the nipple. The baby takes the nipple and the breast tissue underlying the areola into their mouth to form a "teat". The nipple only forms about one third of the "teat" of breast tissue in the baby's mouth.

In picture 2, the mother is testing her breast for protractility. She is finding out 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 their mouth. The baby should be able to suckle from this breast with no difficulty.

**Key point:** Nipple protractility 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.

## Inverted nipples




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

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.

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## Management of flat and inverted nipples

| | |
|---|---|
| **Antenatal treatment** | Probably not helpful |
| **Soon after delivery** | Build the mother's confidence – breasts will improve<br>Explain that the baby suckles BREAST not nipple<br>Let the baby explore breast skin-to-skin<br>Help the mother to position her baby on the first day<br>Try different positions, e.g. underarm<br>Help her to make the nipple stand out more<br>Use a pump or syringe |
| **For first week or two, if necessary** | Express breast milk and feed with a cup<br>Express breast milk into the baby's mouth |

This table summarizes the management of flat and inverted nipples.

**Antenatal treatment is probably not helpful**. For example, stretching the nipples or wearing nipples shells does not help. Most nipples improve around the time of delivery, without any treatment. However, if a woman is worried that her nipples may be flat or inverted, examine them and assess their protractility. It is helpful to explain about them and to build her confidence that she will be able to breastfeed. Help is most important soon after delivery when the baby starts breastfeeding.

**Build the mother's confidence**. Explain that it may be difficult at the beginning, but with patience and persistence she can succeed. Explain that her breasts will become softer in the week or two after delivery.

**Explain that a baby suckles from the breast – not from the nipple**. Her baby needs to take a large mouthful of breast. Explain also that as her baby breastfeeds, they will stretch her breast and nipple out.

**Encourage her to give plenty of skin-to-skin contact, and let her baby explore her breasts**. Let the baby try to attach to the breast on their own, whenever they are interested. Some babies learn best by themselves. Show her how to lean back in the reclining position to give the baby skin-to-skin contact. Some babies can attach more easily in this position.

**Help her to position her baby so that they can attach better**. If a baby does not attach well by themself, help their mother to position them so that they can attach better. Give her this help early, in the first day, before her breast milk "comes in" and her breasts are full.

**Help her to try different positions to hold her baby**. Sometimes putting a baby to the breast in a different position makes it easier for them to attach; for example, some mothers find that the underarm position is helpful. Sometimes it helps if the mother leans over the baby so that her breast fall towards her baby's mouth.

**Help her to make her nipple stand out more before a feed**. Sometimes making the nipple stand out before a feed helps a baby to attach. Stimulating her nipple may be all that a mother needs to do. Or she can use a hand breast pump, or a syringe, to pull her nipple out.

Sometimes **shaping the breast** makes it easier for a baby to attach. To shape her breast, a mother support it from underneath with her fingers, and presses the top of the breast gently with her thumb. She should be careful not to hold her breast too near the nipple. If it is acceptable to both partners, the woman's husband can suck on her nipples a few times to stretch them.

If a baby cannot suckle effectively in the first week or two, help their 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; it 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.

Some mothers find helpful to **express a little milk directly into the baby's mouth**. The baby gets some milk straight away, so they are less frustrated. The baby may be more willing to try to suckle. The mother should continue to give the baby skin-to-skin contact, and let them explore her breasts and try to attach on their own.

## DEMONSTRATION 28.A SYRINGE METHOD FOR TREATMENT OF INVERTED NIPPLES

- Use a 20 mL syringe and cut off the adaptor end of the barrel, as shown in **Fig. 28.1**.
- Put the plunger into the cut end of the barrel (that is, the reverse of its usual position).
- Show the mother how to put the smooth end of the barrel over the nipple. Pull out the plunger to create suction on the nipple.

> **Key point:** The mother must use the syringe herself. If a health worker pulls on the syringe, they may pull too hard and cause pain and damage the nipple.

Teach a mother to:

- put the smooth end of the syringe over her nipple, as you demonstrated
- put the plunger about two thirds of the way along the barrel
- not put it all the way in, or it may pull too strongly and damage the nipple
- gently pull the plunger to maintain steady but gentle pressure, to make the nipple stand out
- 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.

Try out how the syringe creates suction, by trying it on the front of your forearms. Usually the syringe will stick there for a few minutes.

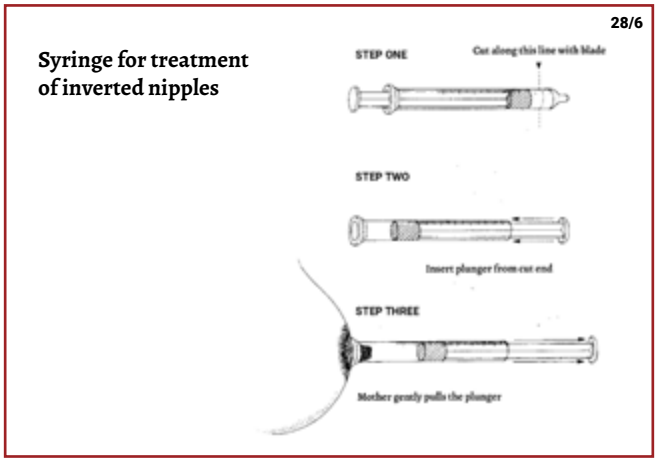
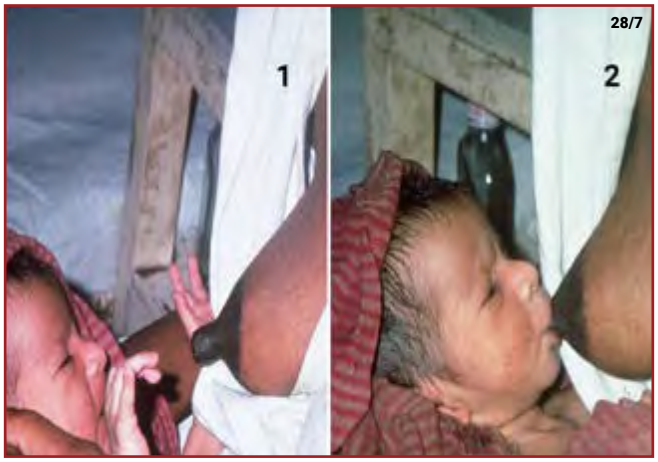



**Fig. 28.1** Preparing and using a syringe for treatment of inverted nipples

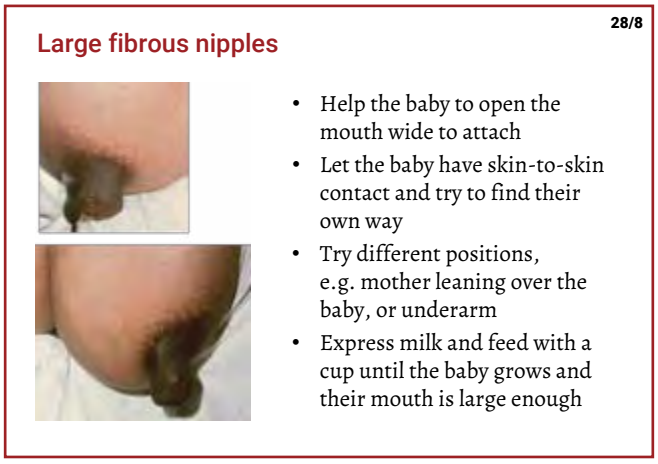
## Long nipples




You might think that long nipples are an advantage, and that they are easy or a baby to suckle from. But this slide shows that long nipples too can cause difficulties. A baby is likely to suck only the nipple, and they may not take the breast with the large ducts into their mouth.

It is important to be ready to help this mother with her breastfeeding technique. Help her to get her baby to take more breast into their mouth – not just the nipple.

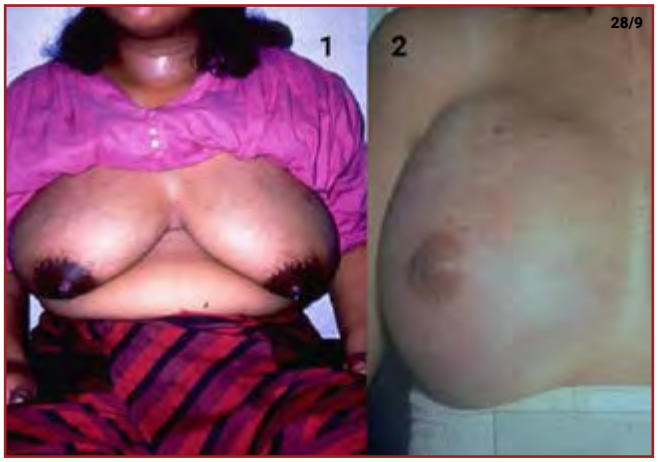
## Large fibrous nipples




Some nipples are very large, such as the ones shown here. It may be difficult for a baby to get this sort of nipple into their mouth. However, if the mother holds her baby in a good position, and touches their mouth so that they open it, the baby may open wide enough to attach to the breast. She needs extra help and patience to do this.

Show her how to lean over her baby, on a bed or table, so that her breast falls towards the baby's mouth; this may make it easier for the baby. Suggest that she gives the baby plenty of skin-to-skin contact and lets them try to find their own way to the breast. Teach her how to express her milk and feed her baby with a cup until they have grown and their mouth is big enough to suckle more easily.

# Full and engorged breasts




The breasts of the woman in picture 1 look large, and you can see that milk is dripping out of them. It has made stains on her skirt. Her breasts are full. This is a few days after delivery, and her milk has "come in" and her breasts have filled with milk. Her breasts feel hot and heavy and hard. However, her milk is flowing well. 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.

Picture 2 shows an engorged breast. You can see from the clear edge, or shelf, at the top that it is swollen. Engorgement means that the breasts are overfull and swollen, partly with milk and partly with increased tissue fluid and blood, which interferes with the flow of milk, so that it cannot get out easily. The breast in this picture looks shiny, because it is oedematous. Her breasts feel painful and her milk does not flow well. 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.

The nipple is stretched tight and flat, which makes it difficult for a baby to attach to it, and to remove the milk.

## Summary of differences between full and engorged breasts

| **Full breasts** | **Engorged breasts** |
|---|---|
| Hot | Painful |
| Heavy | Oedematous |
| Hard | Tight, especially nipple |
| | Shiny |
| | May look red |
| Milk flowing | Milk NOT flowing (may drip) |
| No fever | May be fever for 24 hours |

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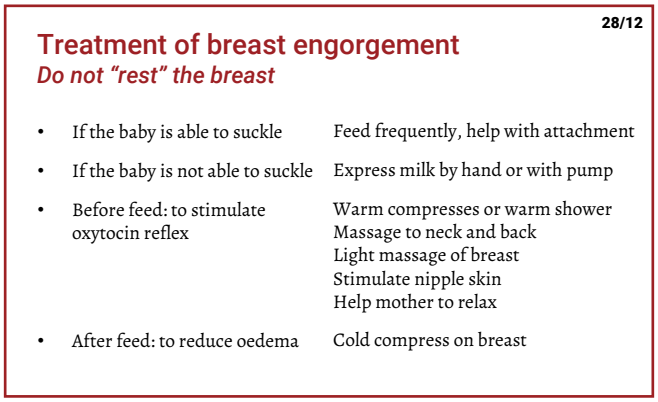
## Causes and prevention of breast engorgement

| Causes | Prevention |
|---|---|
| • Plenty of milk<br>• Delay starting to breastfeed<br>• Poor attachment to breast<br>• Infrequent removal of milk<br>• Restriction of length of feeds | • Start breastfeeding soon after delivery<br>• Ensure good attachment<br>• Encourage unrestricted breastfeeding |

- Causes of engorgement are:
  - Plenty of milk
  - Delay in starting breastfeeding after birth
  - Poor attachment to the breast so breast milk is not removed effectively
  - Infrequent removal of milk, for example, if breastfeeding is not on demand
  - Restricting the length of breast feeds
- The table also shows that three most important ways to prevent engorgement are:
  - Letting the baby feed as soon as possible after delivery
  - Making sure that the baby is well positioned and attached to the breast
  - Encouraging unrestricted breastfeeding
- You can see that prevention is closely related to the causes of engorgement. A baby should suckle effectively from soon after delivery, without restrictions on the length or frequency of feeds. Then the milk pressure does not build up in the breasts. Engorgement is less likely to occur.




This table summarizes the treatment of breast engorgement.

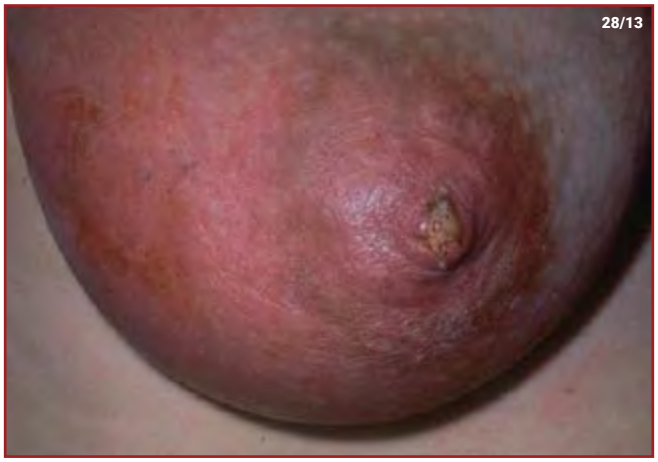
- To treat engorgement, it is essential to remove milk. If milk is not removed, mastitis may develop, an abscess may form and production of breast milk decreases.
- So, do not advise a mother to "rest" her breast.
- **If the baby is able to suckle, they should feed frequently**. This is the best way to remove milk. Help the mother to position her baby, so that they attach well. Then the baby suckles effectively, and does not damage the nipple.
- **If the baby is not able to suckle, help the mother to express her milk**. She may be able to express by hand or she may need to use a breast pump, or a warm bottle (see SESSIONS 17 and 33: EXPRESSING BREAST MILK 1 and 2. Sometimes it is only necessary to express a little milk to make the breast soft enough for the baby to suckle. Pressing around the areola can help to soften the tissues beneath, which makes expressing easier.
- **Before feeding or expressing, stimulate the mother's oxytocin reflex**. Some things that you can do to help her, or she can do are:
  - put a warm compress on her breasts, or take a warm shower
  - 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.

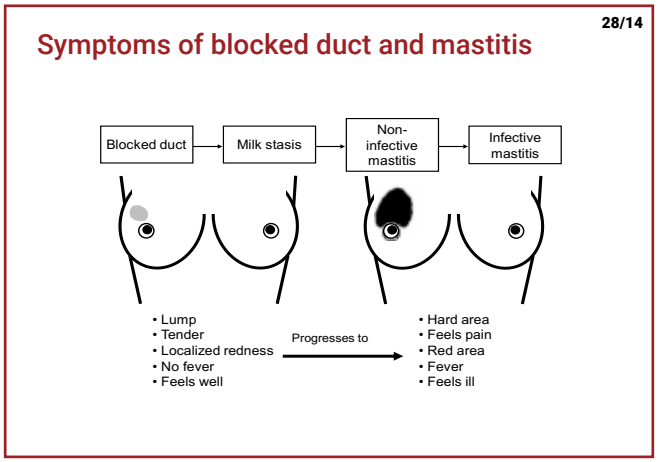
## Engorgement in a woman living with HIV who is stopping breastfeeding

Engorgement may occur in a woman living with HIV who stops breastfeeding abruptly. When an mother who is living with HIV 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 while the mother's milk supply is decreasing. If ibuprofen is not available, then paracetamol may be used.

# Blocked duct and mastitis




The woman in the photo has severe pain and fever and she feels ill. Part of the breast is swollen and hard, with redness of the overlying skin. The other part of the breast looks normal. She has **mastitis**.




Mastitis may develop in an engorged breast, or it may follow a condition called **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 whether mastitis is non-infective or infective. If the symptoms are all severe, however, the woman is more likely to need treatment with antibiotics.

## Differences between mastitis and engorgement

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| Mastitis | Engorgement |
|---|---|
| • Usually one breast<br>• Part of breast affected<br>• Red area (erythema): demarcated with normal breast tissue around it<br>• Hardness and lumpiness of red area<br>• Hardness not relieved by removal of milk<br>• Pain in red area<br>• Maternal fever continuous | • Usually both breasts<br>• All of breast affected<br>• Redness patchy, diffuse, not clearly demarcated<br>• Hardness: swelling of whole breast, nipple tight<br>• Hardness and swelling relieved if milk is removed<br>• Pain in all of both breasts<br>• May be brief fever for 24 hours |

Mastitis is sometimes confused with engorgement. There are important differences that can help you to decide which it is:

- Mastitis usually affects only one breast, though sometimes it can affect both. Engorgement usually affects both breasts.
- Mastitis affects part of the breast, and engorgement affects the whole breast.
- With mastitis, there is usually a clearly demarcated (or marked) area of bright redness of the skin, surrounded by normal breast tissue. With engorgement, there may also be some redness, but it is diffuse and patchy and not clearly demarcated.
- With mastitis, the red area is hard and may be lumpy, but the rest of the breast is soft, and the nipple is unaffected. With engorgement, the whole breast is swollen, and the nipple may be pulled tight and flattened.
- With mastitis, removal of the milk does not relieve the hardness, but with engorgement, there is usually some relief immediately.
- With mastitis there is severe pain, mostly in the red area. With engorgement, the pain is less severe, but through the whole breast.
- With mastitis, the woman has a continuous fever. With engorgement, there may be fever; if there is, it is usually for only 24 hours.

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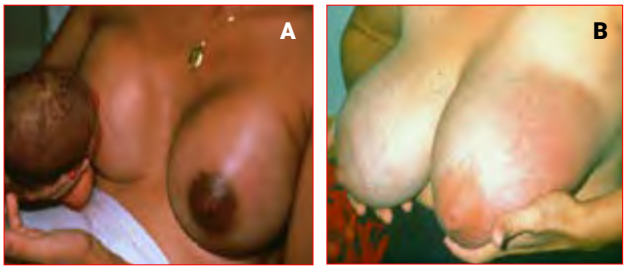
**What do you notice about these breasts?**



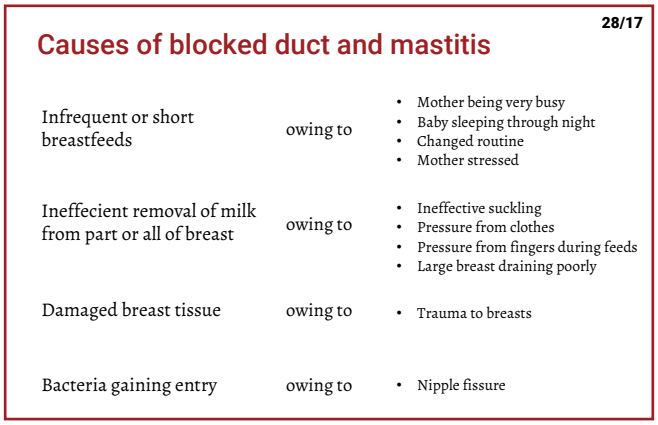

With woman A:

- Both breasts are affected.
- The whole of both breasts is swollen, with a "shelf" at the edge of the swelling.
- There is no clearly demarcated redness.

With woman B:

- Only the left breast is affected.
- Part of the breast is bright red.
- The red area is clearly demarcated, and the skin around it looks normal.

Woman A has engorgement; woman B has mastitis of the left breast.




This image summarizes the causes of blocked duct and mastitis. The main cause is not removing the milk adequately from all or part of a breast. Failure to remove the milk may be due to infrequent or short breastfeeds, or inefficient removal of milk from part or all of the breast.

**Infrequent breastfeeds** may occur when a mother is very busy; when a baby starts feeding less often, for example when they start to sleep through the night or feed irregularly; or because of a changed feeding pattern for another reason, for example the mother returning to work or going on a journey; or if the mother is stressed or overworked.

**Inefficient removal of milk** from part or all the breast usually occurs when the baby is poorly attached to the breast, so the baby may remove milk from only part of the breast; it can also occur if there is pressure from tight clothes, especially a bra worn at night, or from lying on the breast, which can block one of the ducts, or pressure of the mother's fingers, which can block milk flow during a breastfeed; it can also occur if the lower part of a large breast drains poorly because of the way in which the breast hangs.

**Damaged breast tissue**, for example caused by trauma, sometimes causes mastitis, for example, a sudden blow, or an accidental kick by an older child.

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.

**Key point**: 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 or 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? Notice whether she has large, pendulous breasts, and whether the blocked duct is in the lower part of her breast.

Suggest that she lifts the breast more while she feeds the baby, to help the lower part of the breast to drain better.

Whether or not you find a cause, there are several suggestions to offer to the mother.

**Breastfeed frequently**. The best way is for the mother to rest with her baby, so that she can respond to the baby and feed them whenever they are willing.

**Gently massage the breast while the 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 the breast between feeds**.

**Treat symptoms of pain and fever**. Give an analgesic, preferably ibuprofen, which decreases inflammation. An alternative is paracetamol.

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 at different feeds**. This helps to remove milk from different parts of the breast more equally. Show the mother how to hold her baby in the underarm position, or how to lie down to feed them, instead of holding them across the front at every feed. However, do not make her breastfeed in a position that is uncomfortable for her.

Sometimes a mother is unwilling to feed her baby from the affected breast, especially if it is very painful. Sometimes a baby refuses to feed from an infected breast, possibly because the taste of the milk changes, and becomes more salty. 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 or two, 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, or a fissure through which bacteria may enter, or no improvement after 24 hours of improved drainage.

Treat her, or refer her for treatment with antibiotics:

- It can be difficult to find an antibiotic that is readily available and effective; many commonly used antibiotics, such as ampicillin, are not usually effective.
- Flucloxacillin and erythromycin are usually effective but may not be available.

Explain to the mother that is very important that she completes the course of antibiotics, even if she feels better in a day or two. If she stops the treatment before is complete, the mastitis is likely to recur.

In addition to antibiotics:

- She needs complete rest.
- Advise her to take sick leave, if she is employed, or to get help at home with her duties. Talk to her family, if possible, about sharing her work.
- If she is stressed and overworked, encourage her to try to take more rest.
- Resting with her baby is a good way to increase the frequency of breastfeeds, to improve drainage.
- Explain that she should continue with frequent breastfeeds, massage and warm compresses. If she is not eating well, encourage her to take adequate food and fluids. Remember that the most important part of treatment is removal of milk from the breast.

## Antibiotic treatment for infective mastitis

The most common bacterium found in breast abscesses 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<br>6-hourly for 7–10 days | Take dose at least 30 minutes before food |
| Erythromycin | 250–500 mg orally<br>6-hourly for 7–10 days | Take dose 2 hours after food |
| **Alternatives if these are not available** | | |
| Amoxicillin/clavulanate (Augmentin) | 875 mg orally<br>Twice daily for 7–10 days | |
| Cefalexin | 250–500 mg orally<br>6-hourly for 7–10 days | |
| Clindamycin | 300 mg orally<br>6-hourly for 7–10 days | |
| Dicloxacillin | 500 mg<br>6-hourly for 7–10 days | |
| Cloxacillin | 250–500 mg<br>6-hourly for 7–10 days | |

## Mastitis in a woman living with HIV

In a woman who is HIV positive, 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.

If a woman living with HIV 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 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.

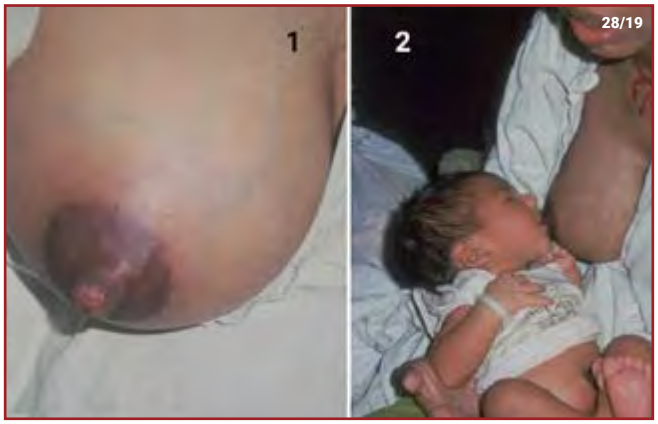
If both breasts are affected, she will not be able to feed from either side. The mother will need to express her milk from both breasts. Breastfeeding can resume when the breasts have recovered.

The health worker may need to discuss other feeding options for her to use meanwhile. The mother can feed the baby with her expressed breast milk; she may decide to heat-treat her expressed milk, or to give commercial formula milk. The infant should be fed by cup.

Give antibiotics for 10–14 days to avoid relapse. Give pain relief and suggest rest, as for a woman who is not living with HIV.

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.

# Nipple fissure



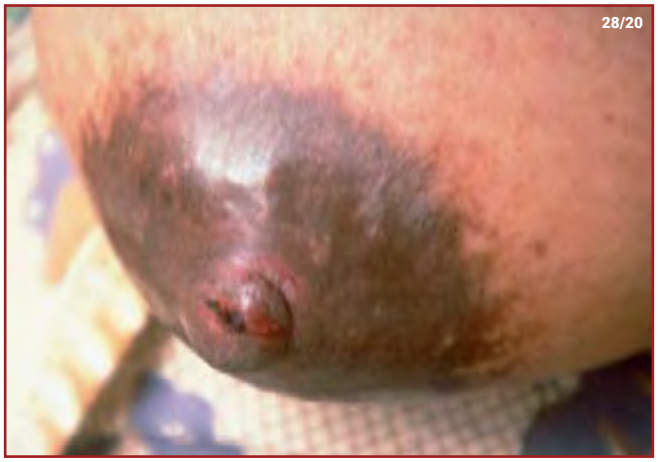

Picture 1 shows a mother's breast. There is a fissure, or crack, around the base of the nipple. You may be able to see that the breast looks swollen and shiny, showing that it is also engorged. Picture 2 shows the same mother feeding her baby: the baby is poorly positioned; his body is twisted away from his mother so his head and body are not in line; his body is not held close to his mother's; and his body is unsupported. He is poorly attached: his mouth is closed; his lower lip is pointing forward; his chin is not touching the breast; and there is more areola seen above baby's top lip than below the bottom lip. 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, they pull the nipple in and out as they suck, and rub the skin of the breast against their mouth. This is very painful for their 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, as you see here.

If a woman has sore nipples or a fissure:

- 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.
- Do not recommend 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.
- Help her to improve her baby's position, so that they are well attached.
- Often, as soon as the baby is well attached, the pain is less. The baby can then continue breastfeeding normally – there is no need to rest the breast to allow the nipples to heal. They will heal rapidly when they are not being damaged any more.
- When the mother understands what she needs to do, leave her to practise attaching the baby for a few feeds. Then come back and observe her breastfeeding again and see whether she needs more help. If a baby has been poorly attached for a number of feeds, it can take a while to get it right.

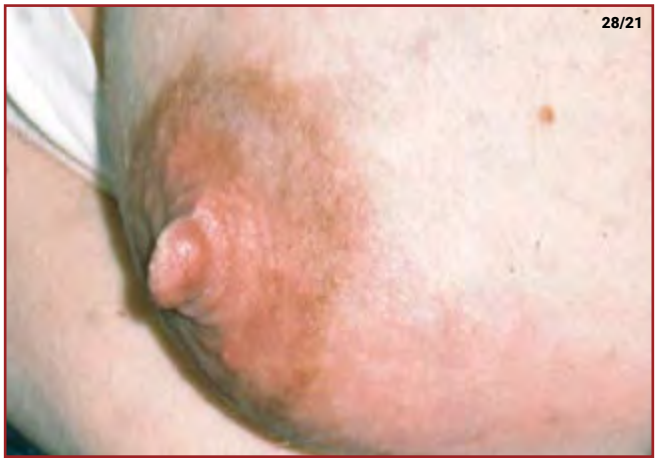
## Breast engorgement and nipple fissure




This mother waited to put her baby to her breast until her milk had "come in" and her breasts felt full – at about 3 days. The skin was so tight that her nipples were flat and her breast was poorly protractile. Her baby could suck only on the nipple, which damaged the nipple skin, causing a fissure across the tip of the nipple. The breast is also engorged.

This shows some of the reasons why it is important to breastfeed within an hour after delivery. It is easier for a baby to attach well at this time, when the breasts are still soft, so there is less chance of nipple damage. Also, breastfeeding early helps to prevent the milk pressure from building up, so it helps to prevent engorgement.

## Pressure line on the nipple

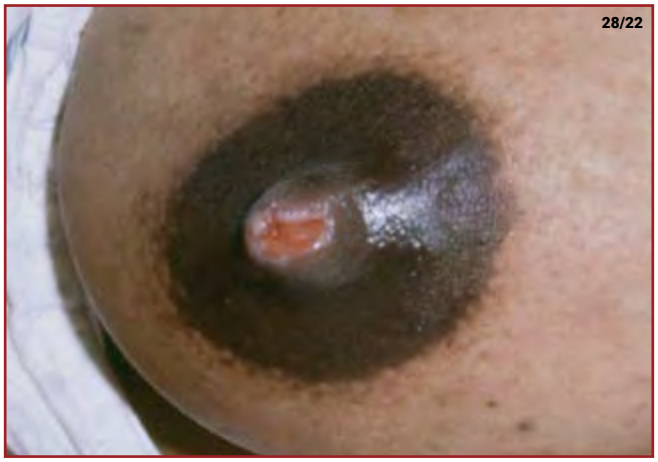



This photo shows a ridged line across the tip of the nipple. This is because of pressure, which has squashed the nipple. It is a sign of poor attachment. There is a red area on the breast skin below the nipple. The mother also had mastitis. She had a fever and felt unwell.

You may see a line like this as a baby releases the breast. It stays for a few seconds, and then the nipple returns to its usual shape. The mother may not feel pain at this stage, but if the baby continues to suckle in this way, then the line will become a painful fissure.

A midwife helped her to improve the attachment. The mastitis cleared after a few days, and there were no more lines on the nipple.

# Ulcerated nipple




This photo shows an open fissure across the tip of the nipple. It is really an ulcer. This kind of damage results when a baby continues to suckle with poor attachment for a long time. This mother was determined to feed her baby in the best way, so she neglected herself and continued breastfeeding even though she was in severe pain.

If attachment is improved, suckling will become less painful, the baby will stop damaging the nipple, and the ulcer will be able to heal. Show the mother how to attach her baby well and encourage her to continue breastfeeding if she possibly can. Encourage her to continue feeding on the other breast if it is not affected.

If the pain is severe and she cannot breastfeed immediately, then it is important to remove the milk another way, to avoid engorgement and mastitis. Show her how to express her milk and feed it to the baby with a cup for a few days.

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## Moist wound healing for ulcerated nipples

**Open fissure or ulcer:**

- The wound needs to heal from the base up
- New cells need to grow over a moist (wet) surface
- If the wound is dry, it delays healing

**Management:**

- Apply white soft paraffin or purified lanolin between feeds
- Cover with a clean breast pad, piece of gauze or cloth
- If the wound is inflamed, or exudes pus, the mother may need antibiotics

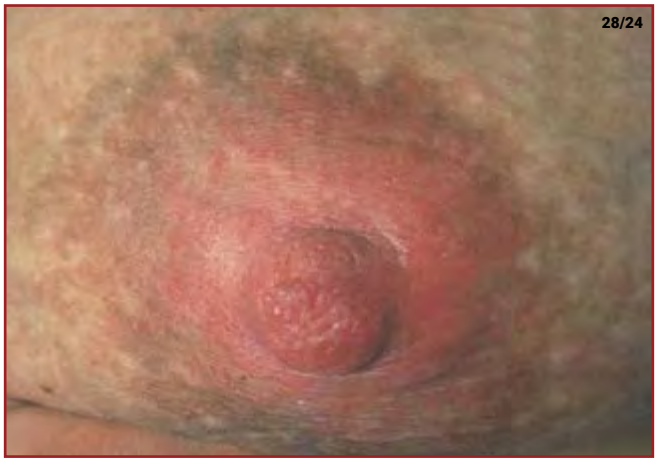
A simple fissure usually heals by the edges joining together. But with open fissures and ulcers, the edges cannot come together, and they need to heal from the base of the wound. New skin cells need to grow over the surface. They do this best if the surface is wet. If the wound is dry, a hard scab forms, which delays healing. It is like having a cracked lip: if you let it dry, and then you smile and stretch the lip, you easily open the crack again. If you put a dry dressing over the ulcer, the exudate may stick to the dressing, so that the ulcer opens again when you take the dressing off.

There are many ointments that are sometimes recommended for sore nipples. Medicated ointments can cause sensitivities and allergies, and is better not to use them.

The most useful treatment is called moist wound healing. To keep the wound moist, cover it with white soft paraffin, or purified lanolin. Then cover it with a clean dressing – a breast pad, or a piece of gauze or clean cloth. The mother's clothes may keep the dressing in place, or if necessary use zinc oxide tape.

If the wound becomes inflamed, or if there is a lot of pus, then it may be infected and the woman may need antibiotics, as for mastitis.

# *Candida* infection




This mother has very sore, itchy nipples. 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 and 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 pain continues after the end of a feed, and may be worse between feeds than during them. This is different from soreness due to poor attachment, which is mostly during feeds.

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. They may have white patches inside their cheeks or on their tongue, or they may have a rash on their bottom.

Treat both mother and baby with nystatin. If treatment is not effective, consider using fluconazole, which is given orally.

Advise the mother to stop using pacifiers (dummies). Help her to stop using teats, and nipple shields. If these are used, they should be boiled for 20 minutes daily and replaced weekly.

In women who are living with HIV, it is particularly important to treat breast thrush and oral thrush in the infant promptly.

## Treatment of *Candida* infection of the breast

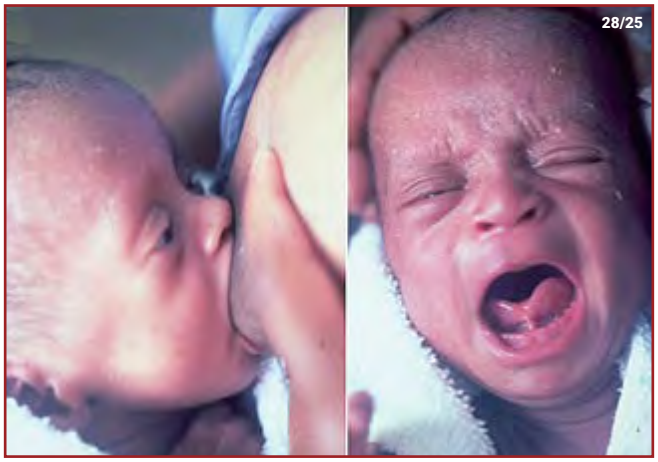
- **Gentian violet paint**
  - To baby's mouth: 0.25%, apply daily or alternate days for 5 days, or until 3 days after the lesions have healed
  - To mother's nipples: 0.5% apply daily for 5 days
- **Nystatin** cream 100 000 IU/g:
  - Apply to nipples 4 times daily after breastfeeds
  - Continue to apply for 7 days after lesions have healed
- **Nystatin** suspension 100 000 IU/mL:
  - Apply 1 mL by dropper to child's mouth 4 times daily after breastfeeds for 7 days, or as long as mother is being treated

OR

- For mother: **fluconazole** 150–300 mg orally once, followed by 50–100 mg twice daily for 2–3 weeks
- For infant, oral *Candida*: **fluconazole** 6 mg/kg orally once, followed by 3 mg/kg per day for 14 days

**Stop** using pacifiers, teats and nipple shields

## Short frenulum or "tongue tie"




Many mothers worry that their babies have "tongue-tie". In most cases, the baby's tongue is normal, but a little short. Many babies with tongue-tie can breastfeed without any difficulty. Sometimes however, a baby cannot get their tongue far enough over their lower gum to reach the large ducts beneath the areola, so they have difficulty attaching and suckling effectively. The baby may not get enough breast milk, and they may make the nipples sore.

If a baby has difficulty with breastfeeding, and you or their mother think that a short frenulum may be the cause, try to get the baby to take more of the breast into their mouth. In some cases, that is all that is necessary. However, if the tongue-tie is severe, or if the difficulties continue, you may need to refer the baby to a doctor to consider cutting the frenulum surgically.

## Summary of management of sore nipples

This list summarizes the management of sore nipples.

First look for a cause.

- Observe the baby breastfeeding and check for signs of poor attachment.
- Examine the mother's breasts.
    - Look for signs of *Candida* infection; look for engorgement; look for fissures.
    - Look in the baby's mouth for signs of *Candida* and for tongue tie; and at the baby's bottom for *Candida* rash.

Then give appropriate treatment:

- Build the mother's confidence.
- Explain that the soreness is temporary, and that soon breastfeeding will be completely comfortable.
- Help her to improve her baby's attachment. Often this is all that is necessary. She can continue breastfeeding, and need not rest her breast.
- Help her to reduce engorgement if necessary. She should breastfeed frequently, or express her breast milk.
- Consider treatment for *Candida* if pain is deep in the breast, if it continues between feeds, if it persists after attachment is corrected, or if there is itchiness.

Then advise the mother:

- Not to wash her breasts more than once a day, and not to use soap or rub hard with a towel.
- Breasts do not need to be washed before or after feeds – normal washing as for the rest of the body is all that is necessary. Washing removes natural oils from the skin and makes soreness more likely.
- 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 applies a little expressed breast milk over the nipple and areola with her finger. This promotes healing.

# Notes

# Notes (contd)

# Session 29

## Breast conditions: exercise

### Introduction

- You will now practise what you learnt about in Session 28.
- The exercise contains short stories about mothers with various breast conditions, followed by some questions.
- You should answer the questions using the information from Session 28.
- You can look back at the notes for Session 28 in your manual if you wish.
- Read the instructions **How to do the exercise** and the **Example** of what to do.
- Then write your answers in the section that says **To answer**.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer. Trainers will give feedback individually as you do the exercises and will give you Answer sheets at the end of the session.

### How to do the exercise:

- Read the stories and write your answers to the questions in pencil in the space after each story.
- When you have finished, discuss your answers with the trainer.

### Example:

**Mrs A** says that both her breasts are swollen and painful. She put her baby to her breast for the first time on the third day, when her milk "came in". This is the sixth day. Her baby is suckling, but now it is rather painful, so she does not let him suck for very long. Her milk is not dripping out as fast as it did before.

*What is the diagnosis?*
(Engorged breasts)

*What may have caused the condition?*
(Delay starting to breastfeed)

*How can you help Mrs A?*
(Help her to express her milk, and help her to position her baby at her breast, so that he can attach better.)

## To answer:

**Mrs B's** baby was born yesterday. She tried to feed her soon after delivery, but she did not suckle very well. She says that her nipples are inverted, and she cannot breastfeed. You examine her breasts, and notice that her nipples look flat. You ask Mrs B to use her fingers and to stretch her nipple and areola out. She is able to stretches the nipple out a short way, showing that the nipple and areola are protractile.

*What could you say to accept Mrs B's idea about her nipples?*

*How could you build her confidence?*

*What practical help could you give Mrs B?*

**Mrs C** has had a painful swelling in her left breast for 3 days. The skin of a large part of the breast looks red, and it is hard and extremely tender. Mrs C has a fever and feels too ill to go to work today. She is a teacher in the local primary school. Her baby sleeps with her and breastfeeds at night. By day, she expresses milk to leave for him. She has no difficulty in expressing her milk. But she is very busy, and it is difficult for her to find time to express milk, or to breastfeed her baby during the day.

*What is the diagnosis?*

*Why do you think that Mrs C has this condition?*

*How would you treat Mrs C?*

*What could you suggest to prevent the same problem occurring again?*

**Mrs D** complains of nipple pain when her 6-week-old baby is suckling. You examine her breasts while her baby is asleep, and can see no fissures. When the baby wakes, you watch her feeding. Her body is twisted away from her mother's. Her chin is away from the breast, and her mouth is not wide open. She takes rapid, shallow sucks. As she releases the breast, you notice that the nipple looks squashed.

*What is the cause of Mrs Dora's nipple pain?*

*What could you say to build Mrs Dora's confidence?*

*What practical help could you give her?*

**Mrs E** says that her right breast has been painful since yesterday, and she can feel a lump in it, which is tender. She has no fever and feels well. She has started to wear an old bra which is tight, because she wants to prevent her breasts from sagging. Her baby is 10 weeks old and now sometimes sleeps for 6–7 hours at night without feeding. You watch him suckling. Mrs E holds him close, and his chin is touching her breast. His mouth is wide open and he takes slow, deep sucks.

*What could you say to empathize with Mrs Ellen's worries about her figure?*

*What is the diagnosis?*

*What may be the cause?*

*What three suggestions would you give Mrs Ellen?*

**Mrs F's** baby is 3 months old. She says that her nipples are sore. They have been sore on and off since an attack of mastitis several weeks ago. The mastitis cleared up after a course of antibiotics. This new pain feels like needles going deep into her breast when her baby suckles. The pain continues between feeds, and her nipples are sometimes itchy.

You watch her baby breastfeeding. You can see areola above her mouth but not below. The baby's mouth is wide open, her lower lip is turned back, and her chin is close to the breast. The baby takes some slow deep sucks and you see her swallow.

*What might be the cause of Mrs Flora's sore nipples?*

*What treatment would you give to her and her baby?*

*How would you build Mrs Flora's confidence?*

**Mrs G** says that her breasts are painful. Her baby is 5 days old. Both Mrs Graces' breasts are swollen, and the skin looks shiny. The nipples are stretched flat and there is a fissure across the tip of her right nipple. You watch her breastfeeding. Her baby is restless and makes smacking sounds as he tries to suckle. After a few sucks, he pulls away and cries.

*What can you say to empathise with Mrs Grace?*

*What is the cause of Mrs Grace's difficulties?*

*What practical help can you give Mrs Grace?*

# Notes

# Session 30

## Refusal to breastfeed

## Objectives

After completing this session, participants will be able to:

- list the causes of refusal to breastfeed
- decide why a baby is refusing to breastfeed
- describe the management of refusal to breastfeed

## Introduction

In some communities, refusal is a common reason for stopping breastfeeding. However, it need not lead to complete cessation of breastfeeding, and can often be overcome. Refusal can cause great distress to the baby's mother. She may feel rejected and frustrated by the experience. You need to know how to decide why a baby is refusing, and how to help the mother and baby enjoy breastfeeding again.

## Why a baby may refuse to breastfeed

### Is the baby ill, in pain or sedated?

- These are common reasons in the first few days. The baby may have refused to breastfeed since birth. However, they may also be the reason in older babies.

*Illness*

- The baby is ill because of a difficult delivery (e.g. brain damage) or infection.
- The baby may not attach and suckle at all.
- The baby may attach to the breast, but less than before.
- The baby is weak, owing to malnutrition.

*Pain*

- The baby has a painful place, such as a bruise on their head from vacuum extraction.
- The baby cries and fights as their mother breastfeeds them, and she presses the painful place.

*Sedation*

- A baby may be sleepy because of:
  - drugs that the mother was given during labour
  - drugs that she is taking for psychiatric treatment or epilepsy.

### Is there a difficulty with breastfeeding?

- These are common reasons in the first month or two of a baby's life.
- Sometimes breastfeeding has become unpleasant for a baby, and they pull away from the breast in frustration.

*Possible causes*

- Separation of the mother and baby after delivery.
- Feeding from a bottle, or sucking on a pacifier (dummy).
- Poor attachment, so that the baby does not get much milk.

- Poor technique of the mother or helper positioning and attaching the baby, such as pressure on the back of the baby's head, which makes the baby resist.
- Delay in the milk "coming in", or engorgement, so the baby does not get much milk.
- Oversupply, so that too much milk comes too fast. The baby may suckle for a minute and then come off the breast choking or crying, with milk spraying out.
- Blocked nose. The baby starts suckling, but then has to stop to breathe.
- Sore mouth (*Candida* infection [thrush]; in an older baby, teething), the baby may suckle a few times and then stop and cry, or may refuse altogether.

*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. For example, the baby has more difficulty attaching to one side.

## 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 most common when a baby is aged 3–12 months. They suddenly refuse several breastfeeds. This behaviour is sometimes called a "nursing strike".

*Possible causes*

- Separation from the mother, for example when she starts a job outside home.
- A new carer, or too many carers.
- A change in the family routine – for example, moving house, visiting relatives.
- Illness of the mother, or mastitis, which makes milk salty.
- The mother menstruating.
- A change in the mother's smell, for example, different soap, perfume or different food.

## Is it "apparent" and not "real" refusal?

Sometimes a baby behaves in a way that makes their mother think that they are refusing to breastfeed. However, the baby is not really refusing.

- When a newborn baby "roots" (or searches) for the breast, they move their head from side to side as if they are saying "no". However, this is normal rooting 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 decide to stop breastfeeding by themself. This is usually gradual.

## Causes of refusal to breastfeed

| | |
|---|---|
| Illness, pain, discomfort or sedation (especially in the first week) | • Difficult delivery (e.g. brain damage)<br>• Infection<br>• Pain from bruise (vacuum, forceps)<br>• Sedation (drugs given to mother)<br>• Blocked nose<br>• Sore mouth (thrush, teething) |
| Difficulty with breastfeeding technique (especially in the first month) | • Separation from mother after delivery<br>• Use of bottles and pacifiers while breastfeeding<br>• Not getting much milk (e.g. poor attachment)<br>• Pressure on back of head when positioning<br>• Delay "coming in", engorgement<br>• Mother shaking her breast<br>• Restricting the length of feeds<br>• Difficulty coordinating suckle |
| Change that upsets the baby (especially aged 3–12 months) | • Separation from mother (e.g. if mother returns to work)<br>• New carer or too many carers<br>• Change in the family routine<br>• Mother ill<br>• Mother has breast problem (e.g. mastitis)<br>• Mother menstruating<br>• Change in smell of mother |
| Apparent refusal | • Neonate – rooting<br>• Age 4–8 months – distraction<br>• Above 1 year – self-weaning |

# Management of refusal to breastfeed

If a baby is refusing to breastfeed:

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

## Treat or remove the cause if possible

### Illness

- If a baby is unable to attach and suckle, they may need special care in hospital.
- Treat infections with appropriate antimicrobials and other therapy. Refer if necessary.
- Help the mother to express her breast milk to feed to the baby by cup or by tube, until the baby is able to breastfeed again (see Sessions 17 and 33: Expressing breast milk 1 and 2).

### Pain

- Help the mother to find a way to hold the baby without pressing on a painful place.

### Sedation

- If the mother is on regular medication, try to find an alternative.
- For analgesics during labour, give the mother extra support while the drugs clear.

### Breastfeeding difficulty

- Discuss the reason for the difficulty with the mother, and teach her to express her milk.
- When her baby is willing to breastfeed again, help her more with her technique, and help her to build up her milk supply (see Session 34: Not enough milk).

### Oversupply

- Suggest that she expresses her milk before she offers the baby the breast. She can slow the flow of milk by holding her breast with the **"scissor" hold**, or she can breastfeed lying on her back. She should let the baby suckle from only one breast at each feed (see Session 35: Crying).

### Thrush

- Treat with gentian violet or nystatin (see Sessions 19 and 28: Breast conditions 1 and 2).

### Teething

- Encourage the mother to be patient and to keep offering the baby her breast.

### Blocked nose

- Explain how to clear it. Suggest short feeds, more often than usual for a few days.

*Changes that upset the baby*

- Discuss the need to reduce separation and changes if possible.
- Suggest that she stops using a 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 the baby closer, so that it is easier for them to attach.
- If it is distraction:
  - Suggest that she tries to feed the baby somewhere more quiet 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 the baby plenty of extra attention in other ways
  - continues to sleep with the baby because night feeds may continue
  - expresses her breast milk and feeds it to the baby by cup.

  This is valuable at least up to the age of 2 years.

## 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 the baby.
  - 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.
  - The baby may be more willing to suckle when sleepy or after a cup feed, than when they are 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 the baby well, so that it is easy for them to attach to the breast.
  - Show her how to hold and feed her baby in the reclining position: she leans well back, so that the baby is supported on her chest. She can do this skin-to-skin, so the baby crawls to her breast (see Sessions 14 and 27: Positioning a baby at the breast 1 and 2).
  - She should avoid pressing the back of the baby's head, or shaking her breast.
- Feed her baby by cup until they are breastfeeding again.
  - She can express her breast milk and feed it to her baby by cup (or cup and spoon).
  - Express as often as the baby would feed (3-hourly), to keep up her supply of breast milk and to keep her breasts healthy.
  - If necessary, use artificial feeds and feed them by cup.
  - She should avoid using bottles, teats and pacifiers (dummies) of any sort.

## Helping a mother and baby to breastfeed again

### Help the mother to do these things:

- Keep her baby close – no other carers
  - Give plenty of skin-to-skin contact at all times, not just at feeding times
  - Sleep with her baby
  - Ask other people to help in other ways
  - Take leave from employment
- Offer her breast whenever her baby is willing to suckle
  - When her baby is sleepy, or after a cup feed
  - In different positions
  - When she feels her ejection reflex working
- Help her baby to take the breast
  - Express breast milk into the baby's mouth
  - Position the baby so that they can attach easily to the breast – try different positions
  - Show her how to feed the baby in the reclining position skin-to-skin
  - Avoid pressing the back of the baby's head or shaking her breast.
- Feed her baby by cup
  - Express her breast milk to keep the supply and keep her breasts healthy
  - Give her own expressed breast milk if possible; if necessary give artificial feeds
  - Avoid using bottles, teats, pacifiers

## Exercise 30.A Breast refusal

### How to do the exercise:

- Read the stories and write your answers to the questions in pencil in the space after each story.
- When you have finished, discuss your answers with the trainer.

### To answer:

**Mrs H** had her baby 3 days ago. She says that she has been trying by herself to put her baby to her breast for 2 days, but he could not attach well, and now he is refusing. She will have to bottle feed.

A nurse has now come to help Mrs H to attach the baby. The nurse puts the baby to face Mrs H's breast. The nurse then holds Mrs H's breast with one hand, and the back of the baby's head with her other hand. The nurse then tries to push the baby onto the breast. The baby pushes his head back and cries.

*Why does Mrs H's baby refuse to breastfeed?*

*What could you say to praise the mother and the nurse?*

*What would you suggest that the nurse does differently?*

*What three things could you suggest that Mrs Haley does?*

**Mrs J** has a baby who is 1 month old. The baby was born in hospital, and was given three bottle feeds before she started to breastfeed. When Mrs J went home, her baby wanted to breastfeed often, and she seemed unsatisfied. Mrs J thought that she did not have enough milk. She continued to give bottle feeds in addition to breastfeeding, and hoped that her supply of breast milk would increase. Now her baby is refusing to breastfeed. When Mrs J tries to breastfeed, the baby cries and turns away. Mrs J wants very much to breastfeed, and she feels rejected by her baby.

*What could you say to empathize with Mrs J?*

*Why is Mrs J's baby refusing to breastfeed?*

*What two pieces of relevant information might be helpful to Mrs J?*

*What four things would you offer to help Mrs J to do, so that she and her baby can enjoy breastfeeding again?*

**Mrs K** says that her 3-month-old baby is refusing to breastfeed. He was born in hospital and roomed-in from the beginning. He breastfed without any difficulty. Mrs K returned to work 2 weeks ago. Her baby has 2–3 bottle feeds while she is at work. For the last week, he has refused to breastfeed when she comes home in the evening. She thinks that her breast milk is not good, because she works hard and feels hot all day.

*What might be the cause of her baby's refusal to breastfeed?*

*What praise and relevant information could you give to build Mrs K's confidence?*

*What could you suggest that she does to breastfeed again?*

# Notes

# Session 31

## Taking a feeding history – 0 up to 6 months 2

### Objectives

After completing this session, participants will be able to:

- describe how to take a feeding history of an infant aged 0 up to 6 months
- describe the content and arrangement of the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS
- demonstrate appropriate use of the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS

### Introduction

In order to help a mother, you need to understand her situation. In this session, we will learn how to take a feeding history of a child aged 0 up to 6 months. The baby may be breastfeeding or receiving another form of milk, and may or may not be receiving complementary feeds.

The JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS will help you to remember the main questions to ask for any infant. As you become more experienced, your counselling skills will help you to learn more about different situations.

Taking a history means finding out about a mother and baby in a systematic way. First, we will look at the technique of HOW TO TAKE A FEEDING HISTORY – 0 UP TO 6 MONTHS. Then you will learn to use a special form, the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS, to help you to remember what to find out about.

#### HOW TO TAKE A FEEDING HISTORY – 0 UP TO 6 MONTHS

- Greet the woman in a kind and friendly way.
- Use the mother's name and the baby's name (if appropriate).
- Ask her to tell you about herself and her baby in her own way, starting with the things that she feels are important.
- Look at the child's growth chart. It may tell you some important facts and save you asking some questions.
- Ask the questions that will tell you the most important facts.
  The JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS is a guide to the facts that you may need to learn about.
  Decide what you need to know from each of the six sections.
- Be careful not to sound critical.
- Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT.
- Try not to repeat your questions.
  If you need to repeat a question, first say: "Can I make sure that I have understood clearly?" and then, for example, "You said that (name) had both diarrhoea and pneumonia last month?"
- Take time to learn about more difficult, sensitive things.
  For example:
  - What does the baby's father say? Her mother? Her mother-in-law?
  - Is the mother happy about having the baby now? About the baby's sex?

Some mothers tell you these things spontaneously. Others tell you when you empathize, and show that you understand how they feel. Others take longer. If a mother does not talk easily, wait, and ask again later, or on another day, perhaps somewhere more private.

# The Job aid: Feeding history – 0 up to 6 months

The Job aid: Feeding history – 0 up to 6 months lists the main things that you need to find out about to help a mother and baby.

It has six sections. Try to memorize the headings:

- Feeding
- Health
- Pregnancy, birth and early feeds (where applicable)
- Mother's condition and family planning
- Previous infant feeding experience
- Family and social situation

When you know the headings, you will find it easier to remember the different points in each section.

Often, questions about points in the first two sections give you the answer to a problem. Sometimes you need to find out more about the mother, her pregnancy and delivery, her previous babies, or the family's situation, before you can understand her difficulties.

> **Key point:** Start with the first two sections. They are the most important. Then continue through the other sections until you are clear about the situation. When you are clear, you need not continue to ask about all the other details. However, it is a good idea to go quickly through each section, in case there is something relevant.

Remember that the Job aid: Feeding history – 0 up to 6 months is not a questionnaire. When you first use it, go through all the points. As you gain experience, you will find it easier to choose which points you need to ask about. You may need to follow up some of the points with more detailed questions.

When you are talking to a mother, the facts may not all come out in the same order as on the Job aid. If at any time, a mother wants to tell you about something that is important to her, let her tell you that first. Ask about the other things afterwards. Try to remember the things that she has told you about already.

Remember to use your counselling skills when you are taking a history from a mother. Try to ask questions in an open way, although you may also have to ask some closed questions if you need specific information.

# Job aid: Feeding history – 0 up to 6 months

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

## Particular concerns about feeding of child:

### FEEDING

- Milk (breast milk, formula, cow's milk, other)
- Frequency of milk feeds
- Length of breastfeeds/quantity of other milks
- Night feeds
- Other foods in addition to milk (when started, what, frequency)
- Other fluids in addition to milk (when started, what, frequency)
- Use of bottles and how cleaned
- Feeding difficulties (breastfeeding/other feeding)

### HEALTH

- Growth chart (birth weight, weight now; length at birth, length now)
- Urine frequency per day (6 times or more)
- Stools (frequency, consistency)
- Illnesses

### PREGNANCY, BIRTH AND EARLY FEEDS (where applicable)

- Antenatal care
- Feeding discussed at antenatal care
- Delivery experience
- Rooming-in
- Prelacteal feeds
- Postnatal help with feeding

### MOTHER'S CONDITION AND FAMILY PLANNING

- Age
- Health – including nutrition and medications
- Breast health
- Family planning

### PREVIOUS INFANT FEEDING EXPERIENCE

- Number of previous babies
- How many breastfed and for how long
- If breastfed – exclusive or mixed fed
- Other feeding experiences

### FAMILY AND SOCIAL SITUATION

- Work situation
- Economic situation
- Family's attitude to infant feeding practices

Follow DEMONSTRATION 31.A using the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS. Make sure that you have a copy of the LISTENING AND LEARNING SKILLS to look at as you follow the demonstration. Listen for counselling skills, for example if the counsellor asks open questions, reflects back, shows empathy, accepts and praises. You can make notes in the *Participant's manual* if it helps you to remember.

## DEMONSTRATION 31.A TAKING A FEEDING HISTORY – 0 UP TO 6 MONTHS

**Health worker:** *Good morning, I am Nurse Jane. May I ask your name, and your baby's name?*
**Mother:** *Good morning, nurse; I am Mrs Green and this is my daughter Lucy.*

**Health worker:** *She is lovely – how old is she?*
**Mother:** *She is 5 months now.*

**Health worker:** *Yes – and she is taking an interest in what is going on, isn't she? Tell me, what milk have you been giving her?*
**Mother:** *Well, I started off breastfeeding her, but she is so hungry and I never seemed to have enough milk, so I had to give her bottle feeds as well.*

**Health worker:** *Oh dear, it can be very worrying when a child is always hungry. You decided to start bottle feeds? What are you giving her?*
**Mother:** *Well, I put some milk in the bottle and then mix in a spoonful or two of cereal.*

**Health worker:** *When did she start these feeds?*
**Mother:** *Oh, when she was about 2 months old.*

**Health worker:** *About 2 months. How many bottles do you give her each day?*
**Mother:** *Oh, usually two – I mix up one in the morning and one in the evening, and then she just sucks it when she wants to – each bottle lasts quite a long time.*

**Health worker:** *So she just takes the bottle little by little? What kind of milk do you use?*
**Mother:** *Yes – well, if I have formula, I use some of that; or else I just use cow's milk and mix in some water, or sweetened milk, because they are cheaper. She likes the sweet milk!*

**Health worker:** *Formula is very expensive isn't it? Tell me more about the breastfeeding. How often is she doing that now?*
**Mother:** *Oh she breastfeeds when she wants to – quite often in the night, and about 4 or 5 times in the day – I don't count. She likes it for comfort.*

**Health worker:** *She breastfeeds at night?*
**Mother:** *Yes, she sleeps with me.*

**Health worker:** *Oh, that makes it easier, doesn't it? Did you have any other difficulties with breastfeeding, apart from worrying about not having enough?*
**Mother:** *No, it wasn't difficult at all.*

**Health worker:** *Do you give her anything else yet? Any other foods or drinks?*
**Mother:** *No – I won't give her food for a long time yet. She is quite happy with the bottle feeds.*

**Health worker:** *Can you tell me how you clean the bottles?*
**Mother:** *I just rinse them out with hot water. If I have soap I use that, but otherwise just water.*

**Health worker:** *OK. Now can you tell me about how Lucy is. Has she got a growth chart? Can I see it? [mother hands over growth chart] Thank you, now let me see.... She was 3.5 kg and 51 cm when she was born, she was 5.5 kg and 59 cm when she was 2 months old, and now she is 6.0 kg and 66 cm. You can see that she gained weight fast for the first 2 months, but it is a bit slower since then. Can you tell me whether Lucy has had any illnesses?*
**Mother:** *Well, she had diarrhoea twice last month, but she seemed to get better. Her stools are normal now.*

**Health worker:** *Can I ask about the earlier days – how was your pregnancy and delivery?*
**Mother:** *They were normal.*

**Health worker:** *What did they tell you about feeding her when you were pregnant, and soon after she was born? Did anyone show you what to do?*
**Mother:** *Nothing – they told me to breastfeed her, but that was all. The nurses were so busy, and I came home after one day.*

**Health worker:** *They just told you to breastfeed?*
**Mother:** *Yes – but I didn't have any milk in my breasts even then, so I gave her some glucose water until the milk started.*

**Health worker:** *It is confusing isn't it when your breasts feel soft after delivery? You need help then, don't you?*
**Mother:** *Yes.*

**Health worker:** *Can I ask about you? How old are you?*
**Mother:** *Sure – I am 22.*

**Health worker:** *And how is your health?*
**Mother:** *I am fine.*

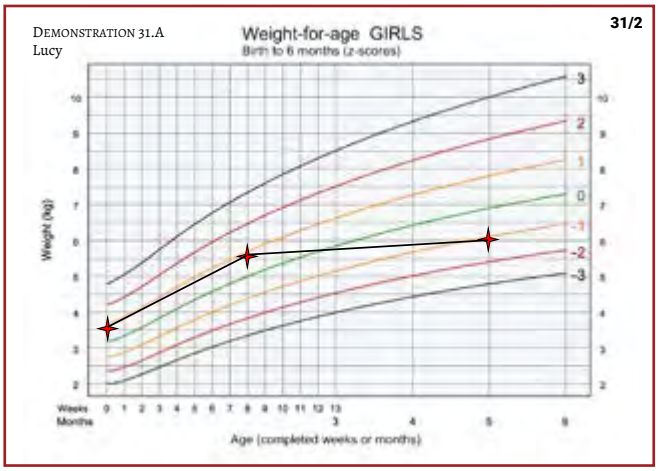
**Health worker:** *How are your breasts?*
**Mother:** *I have had no trouble with my breasts.*

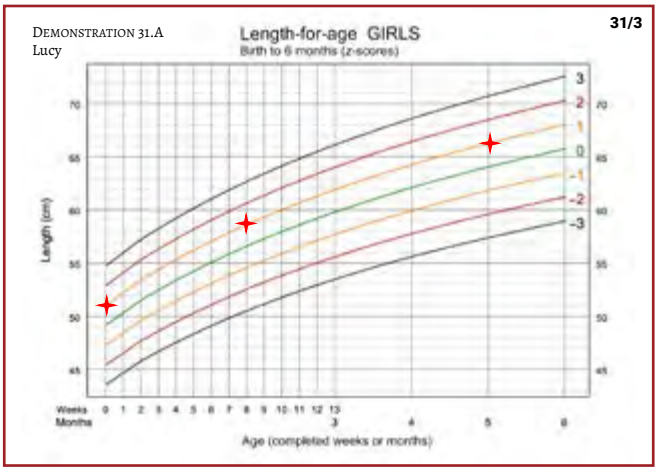
**Health worker:** *May I ask whether you are thinking about another pregnancy at any time? Have you thought about family planning?*
**Mother:** *No – I haven't thought about it – I thought that you can't get pregnant when you are breastfeeding.*

**Health worker:** *Well, it is possible if you are also giving other feeds. We will talk about it more later if you like. Is Lucy your first baby?*
**Mother:** *Yes. And I do not want another one just yet.*

**Health worker:** *Tell me about how things are at home – are you going out to work?*
**Mother:** *No – I am a housewife now. I may try to find a job later when Lucy is older.*

**Health worker:** *Who else do you have at home to help you?*
**Mother:** *Lucy's father is with me. He has a job as a driver and he is very fond of Lucy, but he thinks she should not breastfeed at night – he thinks she breastfeeds too much and he wants her to sleep in another bed. But I am not sure . . . He says that too much breastfeeding is what gives her diarrhoea.*




Discuss the demonstration with the trainer. Report on your observations of how Nurse Jane took the history.

Did Nurse Jane use LISTENING AND LEARNING SKILLS to obtain information? Can you give some examples?

What examples of empathy did you hear the health worker use?

Did Nurse Jane ask some questions from all six sections of the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS?

Did she leave out any important questions?

Did asking questions from each section of the form help her to understand the difficulties?

What were the feeding difficulties in this situation?

Read through the list in the box SUMMARY: HOW TO TAKE A FEEDING HISTORY – 0 UP TO 6 MONTHS and try to learn it.

## Summary: How to take a feeding history – 0 up to 6 months

- Greet the woman and introduce yourself
- Use the mother's and baby's names (if appropriate)
- Ask her to tell you about herself and her baby in her own way (use Listening and learning skills)
- Look at the child's growth chart
- Ask the most important questions (use the Job aid: Feeding history – 0 up to 6 months)
- Be careful not to sound critical (use Skills for building confidence and giving support)
- Try not to repeat questions
- Take time to learn about difficult, sensitive things

# Notes

# Session 32

## Taking a feeding history – 0 up to 6 months: exercise

## Introduction

You will now practise taking a feeding history for infants aged 0 up to 6 months in the way that you learnt about in Session 31. You will practise taking a history to understand the mother's situation and to try to decide what her difficulty is. You do not practise giving information or suggestions, or trying to solve her difficulty. You will practise that in another session.

## Preparation

- You will work in groups of four to practise taking a feeding history. Use role-play to practise taking a breastfeeding history. Follow the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS.
- One of you will be a "mother", one of you will be a "counsellor", and the other one or two participants will be "observers".
- When you are a "mother", play the part of the mother in the history on your card. The "counsellor" takes your history, and does not have the card.
- You will each be given a growth chart for the baby in your story – it may already be filled in, or you may need to fill it in yourself. Use pencil for this, so that you can reuse the card in a subsequent session.
- The "observers" will also be given a copy of the mother's card, so that they can follow the history. The "mother" and "observers" must conceal the card from the "counsellor".
- The "mother" gives herself and her baby a name.
- In turn, each member of the group plays the part of a mother, a counsellor and an observer.

### Arrangement of the histories

- First, there is the REASON FOR VISIT, including the mother's complaint, if she has one.
- Then there is the HISTORY, with six sections, which are the same as the six sections in the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS. There is some information in each section, so it is important to ask questions relating to each section of the form.

## Taking a feeding history for an infant aged 0 up to 6 months

Look back at the form HOW TO TAKE A FEEDING HISTORY – 0 UP TO 6 MONTHS on page 239 of your *Participant's manual*.

- If you are the "counsellor":
  - Greet the "mother" and ask her how she is. Use her name and her baby's name.
  - Ask one or two open questions to start the conversation, and ask her to tell you about herself and her baby. If appropriate, ask how you can help her.
  - Look at the baby's growth chart.
  - Ask the "mother" questions about things from all six sections of the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS.
  - Use your counselling skills.
  - You can make brief notes on the Job aid, but try not to let it become a barrier.

- If you are the "mother":
  - Try to respond naturally to the "counsellor".
  - When the "counsellor" asks how they can help, read out the REASON FOR VISIT. Answer the "counsellor's" questions from the information in your history, in your own words.
  - Do not read out all the information at once; just tell the "counsellor" things that they have asked about.
  - If the "counsellor" asks closed questions, just say "yes" or "no".
  - If the "counsellor" uses open questions and other LISTENING AND LEARNING SKILLS, give them the information more easily.
  - If the information to answer a question is not in your history, make up information to fit with the history.
- If you are observing:
  - Follow the history practice with your JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS and your copy of the history, and observe how the "counsellor" takes the history.
  - Notice whether the "counsellor" asks about things from all sections of the Job aid, whether they miss important questions, and whether they ask relevant questions.
  - Notice, using your list of COUNSELLING SKILLS, whether the "counsellor" uses open questions and other LISTENING AND LEARNING SKILLS.
  - During discussion, be prepared to first praise what the "counsellor" does right, and then to suggest what they could do better.

When you have finished taking this mother's history, your trainer will discuss the history with you and give you feedback.

# Notes

# Session 33

## Expressing breast milk 2

### Objectives

After completing this session, participants will be able to:

- list the situations when expressing breast milk is useful
- explain how to stimulate the oxytocin reflex
- rub a mother's back to stimulate the oxytocin reflex
- demonstrate how to select and prepare a container for expressed breast milk
- describe how to store breast milk
- explain to a mother the steps of expressing breast milk by hand

### Introduction

In this session, you will learn how to express breast milk effectively. Expressing breast milk is helpful in a number of situations. All mothers may be faced with one or more such situations at some point. Difficulties can arise, but they are often due to poor technique. Mothers also need the support of their families and friends.

Many mothers are able to express plenty of breast milk using rather strange techniques. If a mother's technique works for her, let her continue to do it that way. But if a mother is having difficulty expressing enough milk, teach her a more effective technique.

Expressing milk is useful to:

- relieve engorgement
- relieve blocked duct or milk stasis
- leave breast milk for a baby when their mother goes out or goes to work
- feed a low-birth-weight baby who cannot breastfeed
- feed a sick baby who cannot suckle enough
- feed a baby who has difficulty in coordinating suckling
- feed a baby while they learn to suckle from an inverted nipple
- feed a baby who "refuses", while they learn to enjoy breastfeeding
- keep up the supply of breast milk when a mother or baby is ill
- prevent leaking when a mother is away from her baby
- help a baby to attach to a full breast
- keep up milk production
- help with breast health conditions, e.g. engorgement (see SESSIONS 19 and 28: BREAST CONDITIONS 1 and 2)
- express breast milk directly into a baby's mouth
- prevent the nipple and areola from becoming dry or sore
- facilitate the transition to another method of feeding or to heat-treat breast milk (see MODULE 7: HIV AND INFANT FEEDING).

So, there are many situations in which expressing breast milk 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. It is important that all those who care for breastfeeding mothers should be able to teach mothers how to express their milk.

Breast milk can be stored for about 8 hours at room temperature or up to 24 hours in a refrigerator.

## Stimulating the oxytocin reflex

The baby suckling or touching the mother's breast stimulates the oxytocin reflex. Also, the mother seeing, hearing, touching and thinking about her baby, and the mother feeling calm and confident can stimulate the reflex.

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.

**Fig. 33.1** illustrates how rubbing a mother's back can help to stimulate the oxytocin reflex.

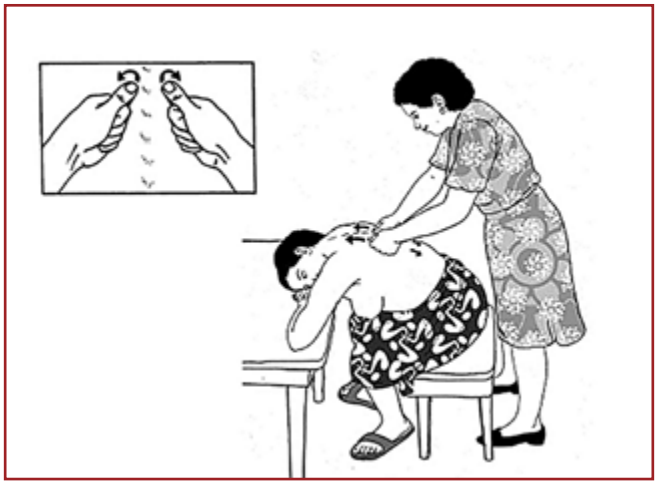


**Fig. 33.1** A helper rubbing a mother's back to stimulate the oxytocin reflex

The mother sits down, leans forward and folds her arms on the table in front of her, resting her head on her arms, as relaxed as possible.

The helper rubs both sides of her spine with their thumbs, making small circular movements, from her neck to her shoulder blades, and back again, for 2 or 3 minutes (see box inset in **Fig. 33.1**).

There are other ways of massaging a mother's back, and they often work well.

### How to stimulate the oxytocin reflex

- 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 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 or with a comb.
    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.

## How to express breast milk by hand

Breast milk can be expressed by hand, or by manual or electric pump. Hand expression is the most useful way to express milk. It needs no appliance, so a woman can do it anywhere, at any time.

It is easy to hand express when the breasts are soft. It is more difficult when the breasts are engorged and tender. So teach a mother how to express her milk in the first and second day after delivery. Do not wait until the third day, when her breasts are full.

**Key point**: A woman should express her own breast milk. 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. You can use a model breast if you want to.

If you need to touch her to show her exactly where to press her breast, be very gentle and careful not to touch her inappropriately. Put her fingers where she should express, and, if necessary, put your fingers on top of hers to show her how to press.

### How to prepare a container for expressed breast milk

- Choose a cup, glass, jug or jar with a wide mouth.
- Wash the cup in soap and water (this can be done 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.

a. Place the first finger or first two fingers and thumb each side of the areola and press inwards towards the chest wall

b. Press behind the nipple and areola between your first finger or first two fingers and thumb

c. Press from the sides to empty all segments

**Fig. 33.2** How to express breast milk by hand

## How to express breast milk by hand

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. Teach her to:

- Prepare a clean dry wide mouthed container for the expressed milk.
- Wash her hands thoroughly with soap and water every time before she expresses.
- She needs to wash her breasts only once a day. Frequent washing, especially with soap, dries the sensitive skin of the areola, increasing the risk of fissures.
- 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 or first two fingers on the breast **below** the nipple and areola, opposite the thumb. She supports the breast with her other fingers (see **Fig. 33.2**).
- Press her thumb and first finger or first two fingers 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 first finger or first two fingers 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.
- Alternate between breasts 5 or 6 times. Stop expressing when the milk no longer flows.
- Explain that to express breast milk 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.
- If she is expressing colostrum in the first one or two days, collect it in a 2 or 5 mL syringe as it comes from the nipple. A helper can do this. This avoids wasting the milk, which can happen with a small volume of milk in a large container.
- Some mothers find pushing slightly inwards towards the chest wall at the same time as compressing the breast helps to increase milk flow.

**Avoid the following:**

- Squeezing the nipple – this can block milk flow.
- Sliding the fingers on the breast – friction can make the breasts sore.

## How often a mother should express milk

How often a mother should express her milk depends on the reason for expressing the milk. Usually she should express as often as the baby would breastfeed, which is about every 3 hours, or 6–8 times a day.

**To establish lactation, to feed a low-birth-weight or sick neonate**, 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 production of breast milk to begin, in the same way that a baby suckling soon after delivery helps production to begin.

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 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**, she should 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**, she should 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 keep her breasts healthy and to reduce leaking. She should express at least twice during working hours, 3-hourly if possible.

**To relieve symptoms, such as engorgement, or leaking at work**, she should express only as much as is necessary.

**To keep her nipple skin healthy**, she should express a small drop to gently smooth onto the nipple and areola after a bath or shower.

### How to store expressed breast milk

- Use appropriate storage containers, such as clean plastic or glass jars with tight lids, and, if possible, a refrigerator. For long-term storage, 10 or more containers will be needed.
- Put the expressed breast milk into a container, cover it, and put it in as cool a place as possible. The amount of expressed breast milk put into one container should not be more than the amount needed for one feed.
- If the amounts of milk expressed are small, add more to the same container during one day, but not after that.
- If no refrigerator is available, expressed breast milk can be kept at room temperature, even in a hot climate, for 6 hours.
- If there is a refrigerator, store the containers of expressed breast milk in the main compartment for up to 24 hours, or in the freezing compartment for up to 3 months.
- Before use, allow frozen milk to defrost in the main compartment, or at room temperature. Warm the milk by standing in a pot of water at hand temperature.
- Use unfrozen milk within 2 hours (or give to an older child or throw away).

## Breast pumps

If breasts are engorged and painful, it is sometimes difficult to express milk by hand. It can be helpful to express with a pump. A pump is easier to use when the breasts are full. It is not so easy to use when the breasts are soft.

The "rubber-bulb breast relievers" (see **Fig. 33.3**) are the most widely available, but are of limited use and not efficient. They should ONLY be used to relieve engorgement when hand expression is difficult. That is why they are called "breast relievers".

In order to use the rubber bulb breast reliever:

- Compress the rubber bulb to push out the air.
- Place the wide end of the tube over the nipple.
- Make sure that the glass touches the skin all around, to make an airtight seal.
- Release the bulb. The nipple and areola are sucked into the glass.
- Compress and release the bulb again, several times.
- After compressing and releasing the bulb a few times, milk starts to flow. The milk collects in the swelling on the side of the tube.
- Break the seal to empty the milk, and start again.

Rubber-bulb breast relievers are difficult to clean properly. Milk may collect in the rubber bulb and it is difficult to clean out. The milk that collects is often contaminated. They are not very efficient, especially when the breasts are soft. They should NOT be used for collecting milk to feed a baby.

**Fig. 33.3** Rubber-bulb breast reliever

## Summary

Hand expression is generally the most useful way to express breast milk. It is less likely to carry infection than a hand or electric 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.

# Notes

# Notes (contd)

# Session 34

## "Not enough milk"

### Objectives

After completing this session, participants will be able to:

- list the reliable and possible signs that a baby is not getting enough milk
- decide whether a baby is getting enough breast milk
- describe the common reasons why a baby may have a low intake of breast milk in the first 2 weeks of life
- list the common reasons why a baby may have a low intake of breast milk intake after 2 weeks of age
- describe the common reasons for apparent insufficiency of milk
- decide the cause of the difficulty
- explain the management of real or apparent low milk supply

### Introduction

Usually, even when a mother thinks that she does not have enough breast milk, her baby is in fact getting all that they need. Almost all mothers can produce enough breast milk for one or even two babies. They can almost all produce more than their baby needs.

Sometimes a baby does not get enough breast milk. But it is usually because they are not suckling enough, or not suckling effectively (see SESSIONS 12 and 24: HOW BREASTFEEDING WORKS 1 and 2). It is rarely because the mother cannot produce enough.

Worries about not having enough milk may arise before breastfeeding has been established, in the first 2 weeks after delivery. Then the mother needs help and support to establish breastfeeding.

Difficulties may arise after breastfeeding has been established, after the baby is about 1 month of age. The mother needs help to maintain production of breast milk. Some mothers worry that they do not have milk at a certain time of day, usually in the evening.

The causes of the difficulties and the needs of mothers in these various situations are sometimes different. However, the same principles of management apply, so we will consider the different situations together.

### Signs that a baby may not be getting enough breast milk

#### Reliable signs

- Poor weight gain (growth slower than standard curves)
- Neonate loses more than 10% of birth weight or weighs less than birth weight at 2 weeks
- Passing a small amount (fewer than 6 times a day) of concentrated urine (yellow and strong smelling)

#### Possible signs

- Baby not satisfied after breastfeeds
- Baby cries often
- Very frequent breastfeeds
- Very long breastfeeds
- Baby refuses to breastfeed
- Baby has hard, dry or green stools
- Baby has infrequent small stools
- No milk comes out when the mother tries to express
- The breasts did not enlarge (during pregnancy)
- Milk did not "come in" (after delivery)

## How to find out whether a baby is getting enough breast milk:

- **Check the baby's weight gain**: this is the most reliable sign.
- For the first 6 months of life, use the growth charts for infants aged 0–6 months (1 kg per month is not necessary, and not usual). If a baby's weight gain is not parallel to the curves (or is downward), they are not gaining enough weight (see Session 8: Building confidence and giving support).
- Look at the baby's growth chart if available, or at any other record of previous weights. If no weight record is available, weigh the baby, and arrange to weigh them again in 1 week's time.
- If the baby is gaining weight and following the curves, then they are getting enough milk.
- However, if no weight record is available, you cannot get an immediate answer.
- **Check the baby's urine output**: this is a useful quick check.
- Ask the mother how often her baby is passing urine.
- By the age of 6 days, babies normally pass urine 6 or more times a day.
- If the baby is more than 4 weeks old, ask the mother if the urine is dark yellow or "strong" smelling, showing that it is concentrated.
- If a baby is passing plenty of dilute urine, they are getting enough breast milk.
- If the baby is passing urine fewer than 6 times a day, and, if they are more than 4 weeks old, if it is concentrated, then they are not getting enough breast milk.
- This can tell you quickly whether an exclusively breastfed baby is getting enough milk. However, if they are having other drinks, you cannot be sure because these signs may not apply.

## Reasons why a baby may not get enough breast milk

| Breastfeeding factors | Mother: psychological factors | Mother: physical condition | Baby's condition |
|---|---|---|---|
| Delayed start<br>Feeding at fixed times<br>Infrequent feeds<br>No night feeds<br>Short feeds<br>Poor attachment<br>Bottles, pacifiers<br>Other foods<br>Other fluids (water, teas) | Lack of confidence<br>Worry, stress<br>Dislike of breastfeeding<br>Rejection of baby<br>Tiredness | Contraceptive pill (estrogen), diuretics<br>Pregnancy<br>Severe malnutrition<br>Alcohol<br>Smoking<br>Retained piece of placenta (rare)<br>Poor breast development (very rare) | Illness<br>Abnormality |
| **These are common** | | **These are not common** | |

The reasons in the first two columns (Breastfeeding factors and Mother: psychological factors) are common. Psychological factors are often behind the breastfeeding factors; for example, lack of confidence causes a mother to give artificial feeds; tiredness results in a mother feeding her baby less often. Look for these common reasons first.

The reasons in the second two columns (Mother: physical condition and Baby's condition) are less common in most settings. So it is not common for a mother to have a physical difficulty in producing enough breast milk. Think about these uncommon reasons only if you cannot find one of the common reasons.

## These do not affect the supply of breast milk

- Age of mother
- Sexual intercourse
- Menstruation
- Disapproval of relatives and neighbours
- Returning to a job (if the baby continues to suckle often and the mother is relaxed, etc.)
- Age of baby
- Caesarean section
- Preterm delivery
- Many children
- Simple, ordinary diet

# Discuss how to help a mother whose baby is not getting enough breast milk

Work in groups of four with one trainer. Go through the steps of helping a mother whose baby is not getting enough milk, and decide how to apply the skills that you have learnt.

In turns, read out the story from the boxes. After each box, the trainer will ask some questions and lead a discussion.

> Mona says that she does not have enough milk. She wants to go back to work in a shop soon, and thinks that she had better start giving Ali bottles now, so that he is used to it when she is working. Ali is 2 months old. He weighed 3 kg when he was born and now he weighs 3.4 kg.

*Is Ali getting enough milk or not?*

*How can you find the cause of Mona and Ali's problem?*

*What will you do next to help to find the cause?*

The history tells you that Ali wants to feed very often. Mona sometimes has sore nipples, so she does not let him feed for very long. Ali was delivered in the local hospital. The delivery was normal and she went home after 6 hours, before Ali had breastfed.

*So what is the cause of Ali not getting enough milk?*

When you assess a breastfeed, you see less areola above Ali’s mouth, and more below, and his chin is not touching the breast. When he finishes suckling, the nipple looks squashed. Ali is not ill or abnormal, and Mona is healthy.

*How can you help Mona and Ali?*

# Discuss how to help a mother who thinks that she does not have enough breast milk

Continue working with your group of four with one trainer

Go through the steps of helping a mother who thinks that she does not have enough milk, to see how to apply the skills that you have learnt.

In turns, read out the story from the boxes. After each box, the trainer will ask some questions and lead a discussion.

> Bella says that she does not have enough milk. Her baby Rafa seems to be hungry all the time. Rafa is 6 weeks old. He weighed 3 kg when he was born and now he weighs 4.2 kg.

*Is Rafa getting enough milk or not?*

*How can you find the cause of Bella's worries?*

> The history tells you that Rafa wants to feed about every 2–3 hours, and also several times at night. Feeds take about 5–10 minutes. She gives him drinks of water between feeds, because she thinks he is thirsty. Rafa was delivered in the health centre. The delivery was normal. The midwife helped her to start breastfeeding before she came home. Bella's mother says that Bella's breasts are too small to produce enough milk for a baby as big as Rafa.

*What will you do next to help to find the cause of Bella's worries?*

Rafa suckles with his mouth wide open, with more areola visible above his mouth than below. Bella holds him close and facing her, and his chin is close to her breast. When he pauses after about 5 minutes, she takes him off the breast. Bella is quite slim and has small pointed breasts, but you can see some white milk on the nipples when she takes Rafa off. Rafa and Bella are both well.

*What is the reason for Bella thinking that she does not have enough milk for Rafa?*

*How can you help Bella and Rafa?*



## Conclusion

The way to help a mother who is worried about her milk supply is similar for a mother whose baby is not getting enough milk and for a mother whose baby is getting enough.

Often, poor attachment at the breast is the cause of behaviour that makes a mother think her baby is not satisfied, even though her milk supply is plentiful and her baby is getting all that they need.

You need to use your counselling skills, your knowledge about the breastfeeding pattern, and skills to help with positioning and attachment. In most cases, the difficulty can be overcome.

# Notes

# Notes (contd)

# Session 35

## Crying

## Objectives

After completing this session, participants will be able to:

- list different reasons why babies may cry
- help families with babies who cry a lot to continue exclusive breastfeeding and not to start unnecessary complementary feeds or supplements

## Introduction

During the first few months, a common reason why a mother thinks that she does not have enough breast milk is that she, or her family, thinks that her baby is "crying too much".

Many mothers start unnecessary supplements or complementary feeds because of their baby's crying. These other feeds often do not make a baby cry less. Sometimes a baby cries more. A baby who cries a lot can upset the relationship between the baby and their mother, and can cause tension among other members of the family. An important way to help a breastfeeding mother is to counsel her about her baby's crying.

### Reasons why babies cry

| | |
|---|---|
| Discomfort | (dirty, hot, cold) |
| Tiredness | (too many visitors) |
| Illness or pain | (changed pattern of crying) |
| Hunger | (not getting enough milk, growth spurt) |
| Mother's food | (any food, sometimes cow's milk) |
| Drugs mother takes | (caffeine, cigarettes, other drugs) |
| Colic | |
| "High-needs" babies | |

## Reasons why babies cry

### Hunger due to not getting milk easily

- A baby who is poorly attached, and not getting milk easily, may demand to be fed very often, and suckle for a long time at each feed.
- The baby may get enough milk and grow, by feeding often, but is not satisfied.

### Hunger due to growth spurt

- In this situation, a baby seems very hungry for a few days, possibly because they are growing faster than before.
- The baby demands to be fed very often.
- This is commonest at the ages of about 2 weeks, 6 weeks and 3 months, but can occur at other times.
- If the baby suckles often for a few days, the supply of breast milk increases, and the baby breastfeeds less often again.

## Mother's food

- Sometimes, a mother notices that her baby is upset when she eats a particular food.
- This is because substances from the food pass into her milk.
- It can happen with any food, and there are no special foods to advise mothers to avoid, unless she notices a problem.
- Babies can become allergic to 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 milk.

## Substances the mother takes

- Caffeine in coffee, tea and colas can pass into breast milk 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.

## Oversupply of breast milk

- A baby may cry if they are getting too much milk too fast.
- The baby may pull up their legs, as if they have abdominal pain.
- The baby may have loose green stools and a poor weight gain; or may grow well but cry and want to feed often.
- Because of this behaviour, the mother may think that she does not have enough milk for her baby.
- However, she has plenty of milk, but the baby may be getting too much foremilk and not enough of the hindmilk.

## Reflux

- Babies sometimes cry a lot because of gastro-oesophageal reflux.
- Reflux is when milk and acid from the stomach pass back into the oesophagus, making it sore.
- The baby may regurgitate milk (small vomits).
- Reflux is more common in babies who have been tube fed.
- Babies may cry particularly when they lie down, because milk passes back more easily.
- The baby may cry less when they are held in an upright position, so that the milk does not pass back so easily.
- Symptoms improve as the baby grows.

## Colic

- Some babies cry a lot without one of the above causes.
- Sometimes the crying has a clear pattern.
- The baby cries continuously at certain times of day, often in the evening.
- The baby may pull up their legs as if they have abdominal pain.
- The baby may appear to want to suckle, but it is very difficult to comfort them.
- Babies who cry in this way may have a very active gut, or wind, but the cause is not clear.
- This is called "colic".
- Colicky babies usually grow well, and the crying usually becomes less after the baby is 3 months old.

## "High-needs" babies

- Some babies cry more than others, and they need to be held and carried more.
- In communities where mothers carry their babies with them, crying is less common than in communities where mothers like to put their babies down to leave them, or where they put them to sleep in separate cots.

# How to help a family with a baby who cries a lot

## Look for a cause

### Listen and learn

Help the mother to talk about how she feels. Empathize with her feelings.

- She may feel guilty and think she is a poor mother. She may feel angry with her baby.
- Other people may make her feel guilty, or they may make her feel that her baby is bad, or naughty, or undisciplined.
- Other people may advise her to give the baby complements or pacifiers.

### Take a history

- Learn about the baby's feeding and behaviour.
- Learn about the mother's diet, and whether she drinks a lot of coffee, or smokes or takes any drugs.
- Learn about the pressures that she is under from the family and other people.

### Assess a breastfeed

- Check the baby's attachment and positioning, and the length of a feed.
- A baby who is poorly attached may cry because they are not getting the milk easily.

### Examine the baby

- Make sure the baby is not ill or in pain. Check the baby's growth.
- If the baby is ill or in pain, treat or refer as appropriate.

## Build confidence and give support

### Accept

- Accept what the mother thinks about the cause of the problem.
- Accept what she feels about the baby and their behaviour.

### Praise what the mother and baby are doing right

- Explain that her baby is growing well, and is not sick.
- Reassure the mother that her breast milk is providing all that her baby needs – there is nothing wrong with it, or with her.
- Her baby is fine – they are not bad or naughty, or in need of discipline.

### Give relevant information

Explain that her baby probably has colic, or "high needs".

- Her baby has a real need for comfort. They are not sick, but may have real pain.
- The crying will become less when the baby is 3–4 months old.
- Medicines for colic are not now recommended. They can be harmful.
- Supplementary feeds are not necessary, and often do not help. Artificially fed babies also have colic. They may develop intolerance or allergy to cow's milk and become worse.
- Suckling at the breast for comfort is safe, but bottles and pacifiers are not safe.

### Make one or two suggestions

What you suggest depends on what you have learnt about the cause of the crying. Common causes may be different in different countries.

- It might help if the mother takes less coffee and tea, and other drinks that contain caffeine, such as colas. If she smokes, suggest that she stops or at least reduces her smoking, and if she does smoke, that she does it only after breastfeeds, not before or during them.
- Ask other members of the family not to smoke in the same room as the baby.
- It might help if the mother stops taking cow's milk and other milk products, or other foods that can cause allergy (soy, peanuts, eggs).
- She should stop taking the food for a week. If the baby cries less, she should continue to avoid the food. If the baby continues to cry as much as before, then that particular food is not the cause of the crying. She can take the food again.
- Do not suggest that she stops these foods if her diet is poor. Make sure that she can eat another energy- and protein-rich food instead, for example, beans.
- If the mother has an oversupply of breast milk:
  - Suggest that she lets the baby suckle from one breast only at each feed.
  - Let the baby continue at the breast until they finish by themself.
  - Explain that if her baby stays on the first breast longer, they will get more fat-rich hindmilk.
  - Use only one breast for all feeds during a certain block of time – 4, 6 or 8 hours, depending on how severe the problem is. Then for the next block of time, use the other breast only.
  - If the baby may have reflux, suggest that she tries to feed them in an upright position.
  - It may also help if the baby sleeps propped up and not lying flat.

### Give practical help

- Make sure that the baby is well attached at the breast. Improving attachment may alter the baby's behaviour.
- Explain that the best way to comfort a crying baby is to hold them close, with gentle movement and gentle pressure on their abdomen.
- Offer to show her some ways to hold and carry her baby.
- Sometimes it is easier for someone who is not the mother to carry the baby, so that the baby cannot smell the breast milk.
- Show her how to bring up her baby's wind. She should hold them upright, for example in a sitting position, or upright against her shoulder.
- (It is NOT necessary to teach "winding" routinely – only if the baby has colic.)
- If the baby is less than 1 month old, she can try holding and feeding them skin-to-skin in the reclining (leaning back) position (see Sessions 14 and 27: Positioning a baby at the breast 1 and 2).

Offer to discuss the situation with the mother's family, to talk about the baby's needs and about her need for support. It is important to try to help to reduce family tensions, so that she does not start giving unnecessary supplements.

# How to hold and carry a colicky baby

Babies are most often comforted with closeness, gentle movement and gentle pressure on the abdomen. There are several ways to provide this.

- Hold the baby along your forearm, pressing on their back with your other hand.
- Move gently backwards and forwards (see **Fig. 35.1a**).
- Sit down and hold the baby lying face down across your lap. Gently rub the baby's back.
- Sit down and hold the baby sitting on your lap, with their back to your chest.
- Hold the baby round the abdomen, gently pressing on the abdomen (**Fig. 35.1b**).
- A man can hold a baby in the way shown in **Fig. 35.1c**. He should hold the baby upright against his chest, with the baby's head against his throat. He should hum gently, so that the baby will hear his deep voice.

a. Holding the baby along your forearm

b. Holding the baby round his abdomen, on your lap

c. Father holding the baby against his chest

**Fig. 35.1** Some different ways to hold a colicky baby

# How to help a family with a baby who cries a lot

## Look for a cause

| | |
|---|---|
| **Listen and learn** | Help the mother to talk about feelings (guilt, anger)<br>Empathize |
| **Take a history** | Learn about the baby's feeding and behaviour<br>Learn about the mother's diet, coffee, smoking, drugs<br>Ask about pressures from family and others |
| **Assess a breastfeed** | Position at the breast, length of feed |
| **Examine baby** | Check for illness or pain (treat or refer as appropriate)<br>Check growth |

## Build confidence and give support

| | |
|---|---|
| **Accept** | Mother's ideas about the cause of the crying<br>Her feelings about her baby and their behaviour |
| **Praise what the mother and baby are doing right (as appropriate)** | Her baby is growing well, and is not sick<br>Her breast milk provides all that her baby needs<br>Her baby is fine, not naughty or bad |
| **Give relevant information** | The baby has a real need for comfort<br>Crying will decrease when the baby is 3–4 months old<br>Medicines for colic are not recommended<br>Supplementary feeds are not necessary or helpful; artificially fed babies also have colic<br>Comfort suckling at the breast is safe, bottles and pacifiers are not safe |
| **Make one or two suggestions (as appropriate)** | Reduce coffee and tea intake<br>Smoke after not before or during breastfeeds<br>Stop milk, eggs, soy, peanuts (1-week trial, if mother's diet is adequate)<br>Give only one breast for each feed, or block of time; give the other breast at the next feed, or block of time<br>Feed the baby in an upright position |
| **Give practical help** | Make sure the baby is well attached at the breast<br>Show the mother and others how to hold and carry baby with close contact, gentle movement and gentle abdominal pressure<br>Offer to discuss the situation with the family |

# Notes

# Notes (contd)

# Session 36

## "Not enough milk" and Crying: exercise

### Introduction

- You will now practise what you learnt about in Sessions 34 and 35.
- The exercise contains short stories about mothers who are worried about their breast-milk supply, or about their babies crying, followed by some questions.
- You should answer the questions using the information from Sessions 34 and 35, and also from SESSION 8: BUILDING CONFIDENCE AND GIVING SUPPORT.
- You can look back at the notes for Sessions 8, 34 and 35 in your manual if you wish.
- Read the instructions **How to do the exercise** and the **Example** of what to do.
- Then write your answers in the section that says **To answer**.
- If possible, use pencil, so that it is easier to correct the answers.
- When you are ready, discuss your answers with a trainer. Trainers will give feedback individually as you do the exercise and will give you Answer sheets at the end of the session.

### How to do the exercise:

- Read through the following stories about mothers who feel that they do not have enough milk, or whose babies are crying "too much".
- Use a growth chart to decide whether a child is growing adequately.
- Write your answers to the questions in pencil in the space after each story.
- When you have finished, discuss your answers with the trainer.

### Example:

**Mrs M** says that she does not have enough milk. Her baby is crying "all the time".

He is 3 months old, and weighs 5.5 kg. Last month he weighed 5.3 kg, and the month before 5.0 kg.

Mrs M manages the family farm by herself, so she is very busy. She breastfeeds her baby about 2–3 times at night, and about twice a day, whenever she has time. She does not give her baby any other food or drink.

*What could you say to empathize with Mrs M?*
(*You are very busy; it is difficult to find time to feed a baby.*)

*Is Mrs M's baby getting enough milk?*
(No he is not getting enough – he has only gained 400 g in 2 months, and his growth is not following the standard growth curves.)

*What do you think is the cause of Mrs M's baby not getting enough milk?*
(Mrs M is not breastfeeding him often enough.)

*Can you suggest how Mrs M could give her baby more breast milk?*
(Could she take her baby with her so that she could breastfeed him more often?
Could someone bring her baby to her where she is working?
Could she express her breast milk to leave for her baby?)

## To answer:

**Mrs N's** baby is 6 weeks old. She says that her breast milk is not good, and her baby does not seem satisfied.

She weighed 3.4 kg at birth and now weighs 5 kg.

Mrs N's baby cries and wants to feed often, after an hour, or an hour and a half. She sometimes feeds for 30 minutes or more. She cries and wants to breastfeed often at night too, and Mrs N is exhausted. She passes pale urine about 6 times a day.

You assess a breastfeed and you notice that Mrs N holds the baby loosely, her chin does not touch her breast, there is more areola visible below the baby's mouth than above it, and the baby's lips point forward.

*Is Mrs N's baby getting as much breast milk as she needs?*

*What may be the reason for her behaviour?*

*What information would you give Mrs N?*

*What practical help would you offer to Mrs N?*

**Mrs O** says that she is exhausted, and will have to bottle feed her 2-month-old baby.

The baby’s growth chart shows that he weighed 2.9 kg at birth, 3.2 kg at 1 month of age and 3.5 kg at 2 months.

He goes to sleep after a breastfeed, but then wakes up very soon and wants to feed again – she cannot count how many times in a day. She thinks that she does not have enough breast milk. While she is talking to you, her baby wants a feed, and you observe him suckling. His mouth is wide open, there is more areola above than below his mouth, and his chin is close to the breast. You cannot see his lower lip as he is close to the breast. After about 2 minutes, he pauses and Mrs O quickly takes him off her breast.

*What could you say to show that you accept Mrs O’s ideas about her milk?*

*Is Mrs O’s baby getting enough breast milk?*

*What is the reason for this?*

*What can you suggest to help Mrs O?*

**Mrs P** is 16 years old. Her baby was born 2 days ago and is very healthy. She has tried to breastfeed her twice, but her breasts are still soft, so she thinks that she has no milk and will not be able to breastfeed. Her young husband has offered to buy her a bottle and some formula.

*What could you say to accept what Mrs P says about her breast milk?*

*What is the reason why Mrs P doubts her ability to breastfeed?*

*What relevant information would you give her?*

*What practical help could you give Mrs P?*

**Mrs Q** says that her baby always cries in the evenings, and seems to be hungry.

He is 6 weeks old, and weighs 5.2 kg. He weighed 3.7 kg when he was born.

Mrs Q’s baby has been crying in the evenings since the age of 2 weeks. At other times he breastfeeds well and is more contented. Mrs Q’s sister told Mrs Q that she probably does not have enough milk when she is tired in the evening. Her sister suggested that Mrs Q give a bottle feed in the evening, so that she can save up her milk for the night feeds. Mrs Q drinks tea once or twice a day. She does not smoke cigarettes, and she does not drink milk or coffee.

*Is Mrs Q’s baby getting enough milk?*

*What is the cause of Mrs Q’s baby’s crying?*

*What are Mrs Q and her baby doing right, that you could praise?*

*What three pieces of information would you give to her?*

*What could you suggest that Mrs Q might do, to help her baby meanwhile?*

**Mrs R** says that her breasts seem to be empty and her baby is hungry.

Her baby is 4 months old, and weighs 5.3 kg. She weighed 3 kg at birth, and at 2 months of age she weighed 4.9 kg.

Mrs R's baby started feeding immediately after delivery, and has demand fed since then. She breastfeeds about 6 times a day and several times in the night, for about 15–20 minutes each time. Recently, she has not seemed satisfied, and Mrs R's breasts do not seem full even before a feed. The baby has never had any other food or drinks, and Mrs R has not had any breast problems. This is her fourth baby and she does not want another, so she has been taking family planning pills since she was 6 weeks old.

You observe a breastfeed, and see more areola above than below the baby's mouth, her mouth is wide open, her lower lip is turned out and her chin touches the breast. She continues suckling for more than 20 minutes, and then stops by herself.

*Is Mrs R's baby getting enough milk?*

*What do you think may be the cause of the poor weight gain?*

*What information would you give Mrs R?*

*How do you suggest that she feeds her baby meanwhile?*

# Notes

# Notes (contd)

# Session 37

## Counselling practice

## Introduction

You will now use role-play to practise using the counselling skills for listening and learning and taking a breastfeeding history, to learn about the mother's situation and to decide what her difficulty is, as you did in Session 32: Taking a feeding history – 0 up to 6 months: exercise.

However, this time you will complete the counselling process, and use the Skills for building confidence and giving support to help the mother find a way to overcome her difficulty.

## Preparation

- You will take it in turns to be a "mother", a "counsellor" or an "observer".
- When you are the "mother", play the part of the mother in the story on your card. Do not let the "counsellor" see your story card.
- Give yourself and your baby a name, either your own real name, or another.
- When you are the "counsellor", you have to learn about the mother and baby, and try to help them, using counselling skills.
- You do not need to practise observation of a breastfeed in this exercise. You will find all that you need to know in the written story. In a real situation, you should always observe as well.
- Other participants in the group are "observers". They should observe how the "counsellor" uses counselling skills and takes a history, and decide whether the counsellor understands the mother's difficulties correctly and offers appropriate help.

## Practising your counselling skills

- If you are the "counsellor":
  - Greet the "mother", and introduce yourself.
  - Ask for her name and her baby's name, and then try to use them.
  - Ask one or two open questions about how she and the baby are, and how you can help her.
  - Use your counselling skills. Try to use at least one example of each of the skills.
  - Take a breastfeeding history. Practise asking the most relevant questions. Ask at least one question from each section of the history.
  - Use your Skills for building confidence and giving support, to give the mother whatever help you decide is necessary.
- If you are the "mother":
  - Answer one of the "counsellor's" open questions with your reason for coming. This is the sentence at the top of the story. For example, for Counselling story 1, say "My milk is not good. (Baby's name) cries too much".
  - Then respond to what your "counsellor" says. If the "counsellor" asks you some questions, answer them from what is written. If you cannot answer a question from what is written, make up an answer to fit with your story.
  - If your "counsellor" uses good Listening and learning skills, and makes you feel that they are interested, you can tell them more.
  - When the "counsellor" gives you information and suggests what you can do, respond as you think a mother would respond, whether or not you think what she says is helpful.

- If you are observing:
  - Use your COUNSELLING SKILLS CHECKLIST, and observe which skills the "counsellor" uses, and which they do not use. Mark on your checklist in pencil when you observe the "counsellor" using a skill correctly.
  - Try to decide whether the "counsellor" has understood the "mother's" situation correctly, and whether they have asked the most relevant questions and given appropriate help.
  - During discussion, be prepared to praise what the role-players do right, and to suggest what they could do better.

When you have finished the role-play with one mother, the trainer will lead the discussion and give you feedback.

## COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

#### Use LISTENING AND LEARNING SKILLS:

☐ Keep the head level with mother/parent/caregiver?

☐ Pay attention (eye contact)?

☐ Remove barriers (tables and notes)?

☐ Take time? Allow the mother/caregiver time to talk?

☐ Use appropriate touch?

☐ Ask open questions?

☐ Use responses and gestures that showed interest?

☐ Reflect back what the mother/caregiver said?

☐ Empathize – showing that he or she understood how the mother/caregiver feels?

☐ Avoid using words that sound judging?

#### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

☐ Accept what the mother/caregiver thinks and feels?

☐ Recognize and praise what the mother/caregiver and baby are doing right?

☐ Give practical help?

☐ Give a little, relevant information?

☐ Use simple language?

☐ Make one or two suggestions, not commands?

# Notes

# Notes (contd)

# Session 38

## Feeding low-birth-weight and sick babies

## Objectives

After completing this session, participants will be able to:

- describe why why breast milk is the best food for low-birth-weight babies
- describe why it is important to continue breastfeeding or giving breast milk when an infant is sick or jaundiced
- help a mother of a low-birth-weight or sick baby to give her baby breast milk
- help a mother to feed her baby by cup

## Introduction

Breast milk is the best milk for all babies. It is especially valuable for babies who are low birth weight or sick. In this session, we discuss low-birth-weight babies in detail first and then babies who are sick.

The term **low-birth-weight baby** includes any baby with a birth weight of less than 2500 g (up to and including 2499 g). Low-birth-weight babies may be **preterm**, that is, born before 37 weeks of gestation, or they may be born at term but small for **gestational age**.

Low-birth-weight babies, whether they are term or preterm, are at particular risk of infections and of becoming ill. Low birth weight is responsible for approximately 60–80% of all neonatal deaths.

In many countries, 15–20% of all babies are low birth weight. In this country, ..... % of all babies are low birth weight.

38/2

**Advantages of breastfeeding for low-birth-weight babies**

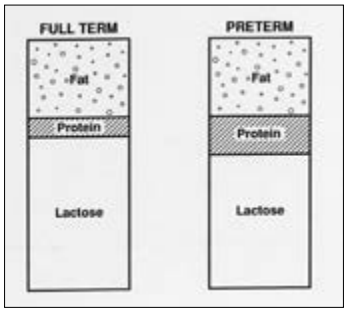
- Lower risk of septicaemia and other infections
- Less necrotizing enterocolitis
- Lower mortality
- Better mental development

Low-birth-weight babies benefit from breast milk: it reduces the risk of septicaemia and other infections and of **necrotizing entercolitis** (a severe gut disease), so it reduces their mortality. It also improves their mental development.

Artificial feeding is even more dangerous for low-birth-weight babies than it is for full-term babies.

38/3

**What is the difference between these breast milks?**




This chart compares full-term and preterm milk. There are important differences between the breast milk produced by a mother of a preterm baby and the mother of a term baby.

Preterm breast milk contains more protein than full-term milk. To grow well, preterm babies need milk with more protein than full-term babies. Much of the extra protein in preterm milk consists of **anti-infective factors**, which give preterm babies the protection that they need.

So the best food for a low-birth-weight baby is their own mother's milk. It is more easily digested and absorbed than formula milk. If a baby cannot suckle strongly enough to feed themself, encourage their mother to express her milk for the baby. It is always better than formula milk, and it is something very special that she can do for her very small baby.

Breast milk contains all the nutrients that a low-birth-weight baby needs, if they weigh 1500 g or more. Babies who weigh less than 1500 g need supplements of calcium, phosphorous and vitamin D. All low-birth-weight babies need iron from the age of 6 weeks after birth.

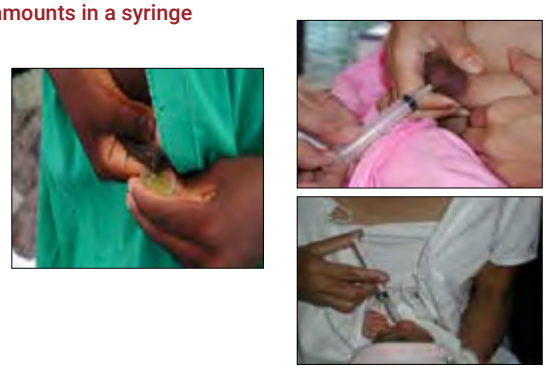
If at first a mother cannot express enough breast milk, give her baby supplements of pasteurized breast milk donated by another woman, until the baby's mother can express enough, if it is acceptable to the mother, and if the policy of the country allows.

If neither the mother's milk nor donor breast milk are available, give preterm formula milk for infants who weigh less than 1500 g, or standard formula milk for infants who weigh more than 1500 g.

38/4

**Expressing breast milk on the day of birth**

Start expressing within 6 hours after delivery – collect small amounts in a syringe



If a baby cannot suckle, they will need to be given expressed breast milk by intragastric tube or cup. Mothers need skilled help to learn to do this.

The mothers in these pictures are expressing breast milk on the first day after delivery. Help a mother to start expressing her milk within 6 hours after delivery if possible, and to express at least every 3 hours (see SESSIONS 17 and 33: EXPRESSING BREAST MILK 1 and 2). This stimulates the production and flow of breast milk until her baby is able to breastfeed.

Colostrum is particularly important for low-birth-weight babies, because it helps to protect them against infections. Expressing soon after delivery helps to ensure that a baby gets colostrum. If the mother can express even a millilitre or two, it is valuable for her baby.

If a mother can only express a few drops, it can be difficult to collect in a cup. A helper can collect it with a syringe directly from the nipple and it can be given to the baby directly from the syringe, as in the lower picture.

38/5

## Methods of feeding low-birth-weight babies

| Gestational age, weeks | Approximate weights, g | Oral feeding method |
|---|---|---|
| Before 32 | 1000–1500 | Intragastric feeding |
| 32–34 | 1300–1800 | Cup for most feeds<br>Try breastfeeding |
| 33–35 | 1600–2000 | Breastfeeding for part of feed<br>Feed by cup or tube to ensure enough |
| 34–36 | 1800–2200 | Coordinated breastfeeding<br>May need some supplements |

The table shown summarizes different ways to feed low-birth-weight preterm babies, according to their approximate gestational age and weight.

However, babies vary in how their ability to breastfeed develops. So it is necessary to observe babies as they grow, and to watch how they behave at the breast and how they respond when offered a feed. It is important to feed them according to their readiness for each feeding method, rather than according to their age or weight.

**Table 38.1** gives more details of how low-birth-weight babies develop readiness to feed. The table is also useful for babies who are sick or clinically unstable, who may respond in a similar way, and need the same feeding methods.

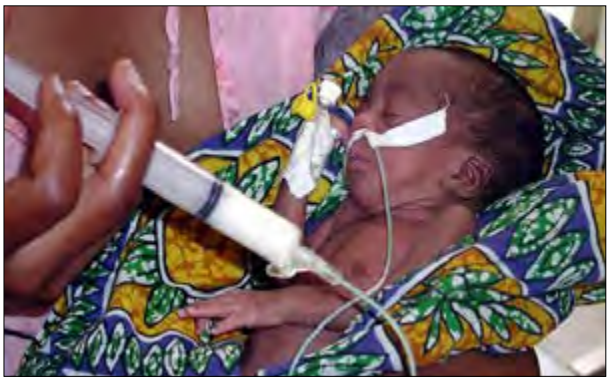
- Babies of less than 28 weeks' gestational age make few mouthing movements, and may not be able to take any oral feeds. They need intravenous feeding. Oral feeds can begin as soon as the baby tolerates them.
- Between 28 and 31 weeks, a baby may start to open their mouth, put their tongue forward and make licking movements. However, suckling is ineffective, and the baby cannot coordinate suckling and breathing, so intragastric feeding is needed.
- Between 32 and 34 weeks, a baby starts to root and tries to attach to the breast, and suckles weakly. It is important to let the baby try because the experience helps development. However, it is not possible to breastfeed fully. Cup-feeding is possible and this gives the baby the experience of taking feeds orally, which also helps development. Intragastric feeds may still be necessary for some feeds, or for part of a feed.
- From between 33 and 35 weeks, a baby can root and attach to the breast more actively, and may have periods of organized suckling, when they can take milk from the breast effectively. There are usually long pauses between periods of suckling. Breastfeeding is still only possible for part of a feed, and cup-feeding or another alternative is necessary to ensure adequate intake.
- From between 34 and 36 weeks, many babies can coordinate suckling well, though cup feeds may be necessary for some feeds. After 36 weeks, most babies can breastfeed fully.

**Table 38.1** Readiness for feeding

| Range of birth weight, g | Gestational age, weeks | Behaviour at the breast | Response when offered expressed breast milk by cup | Feeding readiness |
|---|---|---|---|---|
| <1000 | <28 | No definite mouthing | Does not put tongue forward<br>No licking | Intravenous feeding needed |
| 1000–1500 | 28–31 | Occasional, ineffective suckling attempts | Opens mouth, puts tongue forward, licks milk<br>Cannot coordinate breathing and swallowing | Intragastric feeding |
| 1300–1800 | 32–34 | May root and attach to breast<br>Weak suckling attempts | Opens mouth, puts tongue forward, licks milk<br>Able to coordinate breathing and swallowing | Cup or other alternative feeding method for most feeds<br>Try breastfeeding |
| 1600–2000 | 33–35 | Able to root and attach to the breast<br>May have periods of organized suckling with long pauses | As above and able to suck at the milk from a cup and other alternatives | Breastfeed for part of feed<br>Cup or other alternative to ensure adequate intake |
| 1800–2200 | 34–36 | Able to suckle effectively at the breast | Able to suck at milk from the cup and other alternative feeding methods | Breastfeed, and may need some supplements by cup or other alternative |

38/6

### Intragastric tube feeding before 32 weeks



This picture shows a baby who is less than about 32 weeks' gestational age being fed by intragastric tube. Give expressed breast milk from the baby's mother if possible.

The mother can let her baby suck on her finger while they are having the tube feeds. This probably stimulates the baby's digestive tract, and may help with weight gain. **She must always wash her hands beforehand**.

38/7

### Cup-feeding, spoon-feeding, *paladai*

The babies in these pictures are between 32 and 34 weeks' gestational age, and are taking feeds from a small cup, as on the left, and from a spoon, as on the right. In the lower picture is a *paladai*, which is used in some countries, particularly in South Asia.

You can start trying to give cup feeds once or twice a day while a baby is still having most of their feeds by tube. If they take cup feeds well, you can reduce the tube feeds.

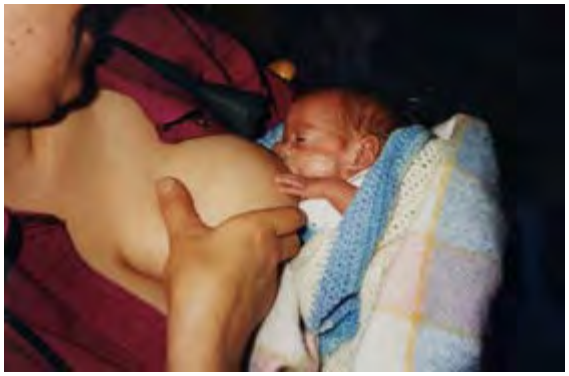
Some babies at this age are able to breastfeed quite well for short periods, so, if possible, try them at the breast before using another method.

Cup and spoon 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.

A *paladai* is about 6–7 cm long. Milk or other liquid is put in the bowl and the spout goes into the baby's mouth. This has the disadvantage that the carer can easily pour the milk into the baby's mouth, instead of letting the baby lap it with their tongue, as they do with a cup (see Section III).

38/8

### Partial breastfeeding: 33–35 weeks



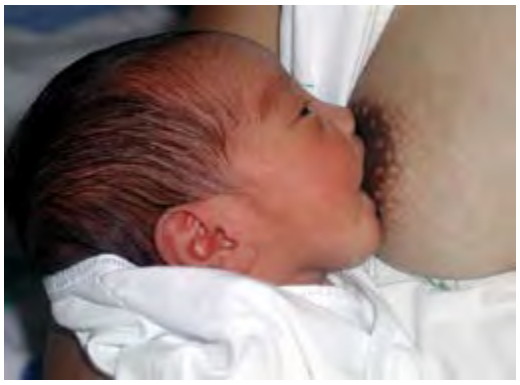
This baby is between 33 and 35 weeks' gestational age, and has already started suckling on the breast. A mother should put her baby to her breast as soon as they are well enough. They may only root for the nipple and lick it at first, or they may suckle a little.

You can see that the baby still has a nasogastric tube in place. The mother should continue giving expressed breast milk by cup or tube, to make sure that the baby gets all they need.

When a low-birth-weight or sick baby starts to suckle effectively, they may pause during feeds quite often and for quite long periods. For example, they may take 4–5 sucks and then pause for up to 4 or 5 minutes. Leave them on the breast so that they can suckle again when they are ready. It is important not to take the baby off the breast too quickly. A low-birth-weight baby can continue for up to an hour if necessary, but a sick baby may not have enough energy. Offer a cup feed after the breastfeed. Or offer alternate breast and cup feeds.

38/9

### Ensure good attachment



This baby is now over 36 weeks' gestational age, and can take all that he needs directly from the breast. Low-birth-weight babies may feed more frequently than larger babies, and they may take long slow feeds. Supplements from a cup may occasionally be necessary.

Make sure that the baby is well positioned and attached, because it makes effective breastfeeding possible sooner. Follow babies up and weigh them regularly to make sure that they are getting all the breast milk that they need.

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

- across her body, holding the baby with the arm on the opposite side to the breast
- the underarm position.

See the figures in SESSIONS 14 and 27: POSITIONING A BABY AT THE BREAST 1 and 2, on pages 82 and 194 in the *Participant's manual*.

In both of these positions, she supports her baby's body on her arm and supports and controls the baby's head with her hand. Low-birth-weight and sick babies need more support for the head than larger babies. However, the mother should be careful only to support the head and not to put pressure on it.

38/10

### Skin-to-skin contact

If a baby is well enough, the best place for skin-to-skin contact is between the mother's breasts, inside her clothes, so that the baby's body is touching her body. If a baby is too sick to move, the mother can make contact with her hand on the baby's body.

Skin-to-skin contact:

- helps breastfeeding because the baby is close to the breast, so they learn to respond to the breast and develop their feeding skills
- stimulates prolactin secretion, so it helps a mother to produce breast milk
- helps a mother and baby to bond, probably because it stimulates oxytocin secretion
- keeps the baby warm by the warmth of the mother's body; the baby does not use up energy to keep warm; there is less need for an incubator, and the baby gains weight better
- makes the baby's heart work better, and makes their breathing more regular, so they need less oxygen
- results in the baby crying less and sleeping better.

So, encourage the mother of a low-birth-weight or stable sick baby to hold the baby in skin-to-skin contact as much as possible, to encourage breastfeeding and for all these other benefits. Cup or tube feeds can be given while the baby is in skin-to-skin contact.



38/11

### Kangaroo mother care

This picture shows **kangaroo mother care**. The babies are held in skin-to-skin contact like this for much of the day and night. Mothers can walk about and do other activities with the baby in this position. Kangaroo mother care is very helpful for the babies' breastfeeding and general development.

38/12

## Early jaundice and hypoglycaemia: 2–10 days

**These do NOT help**

- Glucose feeds
- Extra water
- Infrequent or restricted breastfeeds



**These help:**

- Breastfeed early
- Frequent unrestricted breastfeeds
- 20% extra if given expressed breast milk

**Jaundice** and **hypoglycaemia** are problems that can affect newborn babies and interfere with their feeding.

The babies in the picture both have jaundice, which is a yellow colour of the skin and eyes, owing to high levels of **bilirubin** in the blood. The commonest kind of jaundice is early jaundice, which occurs between the 2nd and 10th days of life. It is routine in some hospitals to give babies fluids such as glucose water to clear jaundice. But research has now shown that extra fluids do not help.

Jaundice is more common and worse among babies who do not get enough breast milk. Extra fluids such as water or glucose water do not help, because they reduce the baby's intake of breast milk. If there is a delay starting to breastfeed, or if breastfeeds are infrequent or restricted in any way, jaundice is more likely. Artificial milk feeds may interfere with breastfeeding in all the ways discussed earlier (see also SESSIONS 79 and 80: HEALTH-CARE PRACTICES 1 and 2).

To help prevent jaundice from becoming severe, babies need more breast milk.

- They should start to breastfeed early, soon after delivery.
- They should have frequent, unrestricted breastfeeds.
- Babies fed on expressed breast milk should have 20% extra milk.

Early feeds are particularly helpful, because they are colostrum. Colostrum has a mild purgative effect, which helps to clear **meconium** (the baby's first dark stool). Bilirubin is excreted in the stool, so colostrum helps to both prevent and clear jaundice.

**Hypoglycaemia** means that the baby's blood sugar is too low. Full-term healthy babies are not at risk of hypoglycaemia, and do not need to be given tests or extra feeds to prevent hypoglycaemia.

Low-birth-weight and sick babies are at risk of hypoglycaemia. To reduce the risk:

- keep the baby warm, for example with skin-to-skin contact
- start breastfeeding or give expressed colostrum within the first hour after birth.

If the baby is unable to breastfeed, and colostrum or expressed breast milk is not available, the baby may need other feeds such as glucose or formula milk, or intravenous fluids.

38/13

## Why do babies stop breastfeeding when they are ill?

**Difficulty with breastfeeding**

- Difficulty suckling (e.g. respiratory infection)
- Loss of appetite (e.g. severe infections)
- Oral feeds not possible (e.g. some surgery)

**Misinformation**

- Someone says breastfeeding caused the illness
- Health worker advises mother to stop

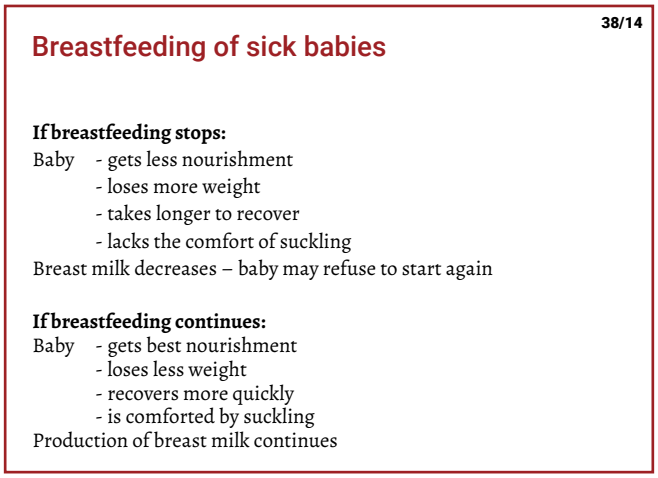
Sometimes a baby has difficulty with breastfeeding, for example:

- A respiratory infection, or sore mouth, for example, infection with *Candida* (thrush), may make suckling difficult.
- An infection may make the baby lose their appetite, and refuse to breastfeed, or suckle less than before.
- Very sick neonates, or babies who need surgery, may be unable to take oral feeds.

Sometimes mothers stop breastfeeding because they have been misinformed; for example, someone says that breastfeeding caused the illness.

However, breast milk does not make a baby ill (though occasionally substances in the mother's food cause colicky crying, see SESSION 35: CRYING).

A health worker may advise a mother to stop breastfeeding, for example, when her baby has diarrhoea.




If a baby stops breastfeeding when they are ill, they get less nourishment; they lose more weight; they take longer to recover; and they lack the comfort of suckling. The mother's breast milk is likely to decrease and the baby may refuse to start breastfeeding again when they are well.

If a baby continues to breastfeed when they are ill, they get the best nourishment; they lose less weight; they recover more quickly (especially from diarrhoea); and they are comforted by suckling. Production of breast milk continues and the baby is more likely to continue breastfeeding when they are well.

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### How to help breastfeeding if a baby is sick

| If the baby: | Help the mother to: |
|---|---|
| • Is in hospital | • Stay in hospital with her baby |
| • Can suckle well | • Breastfeed more often |
| • Suckles less than before | • Give more frequent, shorter feeds |
| • Is not able to suckle or refuses | • Express her breast milk and give it by cup or tube |
| • Cannot take oral feeds | • Express 3-hourly to keep up the milk supply |
| • Is recovering | • Start breastfeeding again. |
| | • Breastfeed more often to build up the milk supply |

**If the baby is in hospital:**

- Admit the mother too, so that she can stay with her baby and breastfeed them. Encourage mothers to spend as much time with their baby as possible. Unless there is a complication in the baby's condition, do not restrict the amount of time the mother can spend with her baby.
- Encourage the mother to express her milk when she is with her baby.
- Encourage her to hold her baby skin-to-skin for as long as possible each day, or to use kangaroo mother care if the baby's condition is stable. Some mothers find that skin-to-skin care or kangaroo mother care helps their milk to flow, and gives their babies more opportunity to breastfeed often.

**If the baby can suckle well:**

- Encourage the mother to breastfeed more often. She can increase the number of breastfeeds up to 12 times a day or more. Sometimes a baby loses their appetite for other foods, but continues to want to breastfeed. This is quite common with children who have diarrhoea. Sometimes a baby likes to breastfeed more when they are ill than before, and this can increase the supply of breast milk.

**If the baby suckles, but less than before at each feed:**

- Suggest that the mother gives more frequent feeds, even if they are shorter.

**If the baby is not able to suckle, or refuses, or is not suckling enough:**

- Babies who are sick may be breastfed slowly and may need to be fed with a gastric tube or cup for a time. Help the mother to express her milk, and give it by cup or spoon.
- Let the baby continue to suckle when they are willing. Even babies on intravenous fluids may be able to suckle, or to have expressed breast milk.

**If the baby is unable to take expressed milk from a cup:**

- It may be necessary to give the expressed breast milk through a nasogastric tube for a few feeds.

**If the baby cannot take oral feeds:**

- Encourage the mother to express her milk to keep up the supply for when her baby can take oral feeds again. She should express as often as her baby would feed, including at night (see Sessions 17 and 33: Expressing breast milk 1 and 2). She may be able to store her milk, or donate it to another baby.

Usually, as a baby starts to recover, they start to breastfeed again. Encourage the mother to do the following:

- Breastfeed her baby; full-term babies resume breastfeeding faster than low-birth-weight babies.
- If a baby refuses at first, help them to start again (see Session 30: Refusal to breastfeed).
- Breastfeed often to build up her supply of breast milk (see Session 39: Increasing breast milk and relactation).

# Feeding a baby by cup

Cups and other alternative feeding methods are used when a baby is unable to take a full feed from the breast, or if the mother is unavailable.

Cups are easy to clean with soap and water, if boiling is not possible. They are less likely than bottles to be carried around for a long time, giving bacteria time to breed. A cup cannot be left beside a baby, for the baby to feed themself. The person who feeds a baby by cup has to hold the baby and look at them, and give them some of the contact they need.

A cup does not interfere with suckling at the breast. However, if the baby is term and is able to breastfeed, they may refuse to feed from a cup. If a baby is low birth weight or sick, this is not so likely to happen.

Cup-feeding is associated with less risk of diarrhoea, ear infections and tooth decay.

A cup enables a baby to control their own intake, at their own pace. The baby sits semi-upright to cup-feed, which reduces the risk of aspiration. **Milk must not be poured into the baby's mouth**.

## How to feed a baby by cup

- Wash your hands.
- Wrap the baby in a cloth to hold their hands by their side, and to support their back.
- Hold the baby sitting upright or semi-upright on your lap.
- Put a cloth in front to protect the baby's clothes from spilled milk.
- 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 their mouth and eyes.
  - A low-birth-weight baby starts to take the milk into their mouth with their 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 their lips and let them take it themself (sipping or lapping).
- When the baby has had enough, they will close their mouth and will not take any more. If the baby has not taken the calculated amount, they may take more next time, or you may need to feed them more often.
- Measure the baby's intake over 24 hours – not just at each feed.

**Fig. 38.1** illustrates how to feed a baby by cup.

**Fig. 38.1** Feeding a baby by cup

## AMOUNT OF MILK TO GIVE TO BABIES WHO CANNOT BREASTFEED

### What milk to give

- Choice 1: expressed breast milk (if possible from the baby's mother, or from a donor); this may be pasteurized or heat-treated according to local policy.
- Choice 2: formula milk made up according to the instructions and World Health Organization (WHO) guidelines.

### Amount of milk to give

**Babies who weigh 2.5 kg or more**

- 150 mL milk/kg body weight per day.
- Divide the total into 8 feeds, and give 3-hourly.

**Babies who weigh less than 2.5 kg (low birth weight)**

- Start with 60 mL/kg body weight per day.
- Increase the total volume by 20 mL/kg per day, until the baby is taking a total of 180–200 mL/kg per day .
- Divide the total into 8–12 feeds, to feed every 2–3 hours.
- Continue until the baby weighs 1800 g or more, and is fully breastfeeding.

Check the baby's 24-hour intake.

The size of individual feeds may vary.

# Alternative methods of oral feeding

A *paladai* is a little cup with a long pointed lip traditionally used for feeding infants in some cultures, especially in South Asia. It is quite convenient to use, but the caregiver has to be careful not to pour the milk into the baby's mouth too fast.

Spoon-feeding takes longer than cup-feeding. You need three hands to spoon-feed: to hold the baby, the cup of milk and the spoon.

Mothers often find it difficult, especially at night. Some mothers give up spoon-feeding before the baby has had enough. Some spoon-fed babies do not gain weight well. However, if a baby is very ill, for example with difficult breathing, it is sometimes easier to use a spoon than a cup.

# Volume of breast milk

Low-birth-weight babies need only very small volumes of milk during the early days. If the mother can express even a small amount of colostrum, it is often all that her baby needs.

If a mother is expressing more milk than her low-birth-weight baby needs, let her express the second half of the milk from each breast into a different container. Let her offer the second half of the expressed breast milk first. Her baby then gets more of the fat- and calorie-rich milk that comes towards the end the feed; this helps the baby to get the extra energy that they need, which helps them to grow faster.

If a mother can only express very small volumes at first, give her baby whatever breast milk she can produce. Even very small amounts help to prevent infection. Help the mother to feel that this small amount is valuable. This helps her confidence, and will help her to produce more milk. Supplement if necessary with donated breast milk, if it is acceptable to the mother, and if the policy of the country allows.

The amount of milk that a baby takes at each feed varies, whatever the method of feeding, including breastfeeding. This is normal.

Babies feeding by cup or breastfeeding supplementer (see SESSION 39: INCREASING BREAST MILK AND RELACTATION) may take more or less than the calculated amount. If possible, offer a little extra, but let the baby decide when to stop. If a baby takes a very small feed, offer extra at the next feed, or give the next feed early, especially if the baby shows signs of hunger. Assess a baby's 24-hour intake. Give extra by intragastric tube only if the 24-hour total is not enough.

## EXERCISE 38.A FEEDING LOW-BIRTH-WEIGHT AND SICK BABIES

### How to do the exercise:

- For Question 1 (*optional*), use the information in the box AMOUNT OF MILK TO GIVE TO BABIES WHO CANNOT BREASTFEED to calculate how much milk the baby needs. Read the **Example**.
- For Questions 2 and 3, explain briefly how you would advise the mother about feeding her baby.

### Example:

Mabel's baby was born 8 weeks early, and cannot yet suckle strongly. Mabel is expressing her milk and feeding her baby 3-hourly by cup. He weighs 1.6 kg, and it is the 5th day.

*How much milk should Mabel give at each feed today?*

- A low-birth-weight baby needs 60 mL/kg on the first day
- On the fifth day, he will need (60 + 20 + 20 + 20 + 20) mL/kg = 140 mL/kg
- Mabel's baby weighs 1.6 kg, so he will need:
  1.6 × 140 = 224 mL on the 5th day
- He feeds 3-hourly, so he has 8 feeds each day
- So at each feed he needs 224 ÷ 8 mL = 28 mL of expressed breast milk
- (Mabel should offer a little more than this if possible, for example, 30 mL. This also allows for spillage.)

## To answer:

**Question 1** (*optional*)

Baby Anna was born at 31 weeks' gestation and cannot yet suckle. She weighs 1.5 kg and you are feeding her by tube with her mother's expressed breast milk. This is the second day she has taken oral feeds. You are feeding her 2-hourly.

*How much will you give at each feed?*

**Question 2**

Mona has just delivered a baby 6 weeks before her expected date. He weighs 1500 g, and is being observed in the special care unit. Mona wants to breastfeed, but she is worried that her baby will not be able to.

*What could you say to empathize with Mona?*

*What could you say to build her confidence?*

**Question 3**

Baby Zora is 3 days old and today her eyes and skin look slightly yellow. Her mother breastfeeds her 3–4 times a day, and she also gives Zora glucose water between breastfeeds.

*What relevant information would you give to Zora's mother?*

# Notes

# Notes (contd)

# Session 39

## Increasing breast milk and relactation

## Objectives

After completing this session, participants will be able to:

- describe the main requirements for increasing the supply of breast milk
- explain the procedure for increasing the supply of breast milk if the baby is willing to suckle
- describe the use of the breastfeeding supplementer

## Introduction

If a mother's supply of breast milk is reduced, she needs to increase it.

This often happens when there is a breastfeeding difficulty and the baby does not get enough milk.

If a mother has stopped breastfeeding, she may want to start again. This is called **relactation**.

The situations in which mothers may want to relactate include when:

- a baby has been sick and has not suckled for a time
- a baby has been artificially fed, but the mother wants now to try breastfeeding
- a baby becomes ill or fails to thrive on artificial feeds
- the mother has been sick and stopped feeding her baby
- a woman who had a baby of her own before adopts a baby
- a natural or man-made disaster has occurred and there are orphaned babies or babies who were artificially fed or partially breastfed prior to the emergency.

The same principles and methods apply for increasing a reduced supply and for relactation, so we describe them both together.

Relactation is more difficult and takes longer. The mother must be well motivated and she needs a lot of support to succeed. Sometimes, it is also necessary to use the methods described in MANAGEMENT OF REFUSAL TO BREASTFEED in SESSION 30: REFUSAL TO BREASTFEED.

## How to help a mother to increase her supply of breast milk

The most important thing for her to do is to **let her baby suckle often**, to stimulate her breasts and increase prolactin secretion. If her baby does not suckle often, her breast milk will not increase, whatever else you do. Of course, the baby must be well attached at the breast. In the past, people often advised mothers to "rest more, eat more, drink more".

These are not effective by themselves. Eating more does not by itself increase a woman's milk supply.

However, if she is undernourished, she needs to eat more to build up her strength and energy. If she is not undernourished, food and warm nourishing drinks may help her to feel confident and relaxed. Many mothers notice that they are more thirsty than usual when they are breastfeeding, especially near the time of a feed. They should drink to satisfy their thirst. However, taking more fluid than they want does not increase their supply of breast milk.

In most communities, experienced women know of some form of **lactogogue**. Lactogogues are special foods, drinks or herbs which people believe increase a mother's supply of breast milk. They do not work like drugs, but may help a woman to feel confident and relaxed.

## How to help a woman to increase her supply of breast milk

- Try to help the mother and baby at home if possible. Sometimes, it is helpful to admit them to hospital for a week or two, especially if the mother may feel pressure to use a bottle again at home, but **only if** there is enough skilled help available in hospital.
- Discuss with the mother the reason for her poor milk supply.
- Explain what she needs to do to increase her supply. Explain that it takes patience and perseverance.
- Use all the ways you have learnt to build her confidence. Help her to feel that she can produce breast milk again or increase her supply. Try to see her and talk to her every day at least once.
- Make sure that she has enough to eat and drink.
- If you know of a locally valued lactogogue, encourage her to take that.
- Encourage her to rest more, and to try to relax when she breastfeeds.
- Explain that she should keep her baby near her, give them plenty of skin-to-skin contact, and do as much as possible for them herself. Grandmothers can help if they take over other responsibilities – but they should not care for the baby at this time. Later they can do so again.
- Explain that the most important thing is to **let her baby suckle more often** – at least 10 times in 24 hours, more if the baby is willing.
  - She can offer her breast every 2 hours.
  - She should let the baby suckle whenever they seem interested.
  - She should let the baby suckle longer than before at each breast.
  - She should keep the baby with her and breastfeed at night.
  - Sometimes it is easiest to get a baby to suckle when they are sleepy.
- Make sure that her baby attaches well to the breast.
- Discuss how to give other milk feeds, while she waits for breast milk to come.
- Show her how to give the other feeds from a cup, not from a bottle. She should not use a pacifier.
- If her baby refuses to suckle on an "empty" breast, help her to find a way to give the baby milk while they are suckling, for example, with a dropper or a breastfeeding supplementer (see below).
- Discuss how much of the other feeds to give. To start with, she should give the full amount of artificial feed for a baby of their weight (150 mL/kg body weight per day; see box Amount of milk to give to babies who cannot breastfeed, in Session 38: Feeding low-birth-weight and sick babies) or the same amount that the baby has been having before. As soon as some breast milk comes, she can reduce the daily total by 30–60 mL each day.
- Divide the total amount of milk for a day by the number of feeds (8,10 or 12), to decide how much to give for each feed, and add a small amount for spillage.
- Check the baby's weight gain and urine output, to make sure that they are getting enough milk.
  - If the baby is not gaining weight, do not reduce the artificial feed for a few days.
  - If necessary, increase the amount of artificial milk for a day or two.
  - Some women can decrease the amount by more than 30–60 mL each day.

## Length of time required to increase the supply of breast milk

The length of time that it takes for a woman's supply of breast milk to increase varies very much. It helps if the mother is strongly motivated, and if her baby is willing to suckle frequently. But the mother should not worry if it takes longer than expected. Try to reassure her that the milk will come, and build her confidence.

If a baby is still breastfeeding sometimes, the supply of breast milk increases in a few days. If a baby has stopped breastfeeding, it may take 1–2 weeks or more before much breast milk comes.

It is easier to relactate if a baby is very young (less than 2 months) than if they are older (more than 6 months). However, it is possible at any age.

It is easier if a baby stopped breastfeeding recently, than if they stopped a long time ago. However, it is possible at any time.

A woman who has not breastfed for years can produce milk again, even if she is post-menopausal. For example, a grandmother can breastfeed a grandchild.

## How to use a breastfeeding supplementer

A **breastfeeding supplementer** is a device for giving a baby a supplement while they are suckling at a breast that is not producing enough milk. A hungry baby may suckle at an "empty" breast a few times, but they may become frustrated and refuse to suckle any more – especially if they have become used to sucking from a bottle.

To stimulate a breast to produce milk, it is necessary for a baby to suckle. A breastfeeding supplementer helps to get the baby to continue suckling.

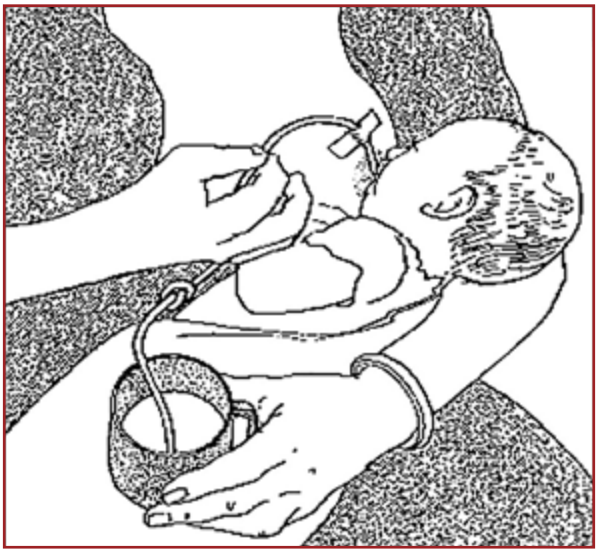


**Fig. 39.1** Using a breastfeeding supplementer

### How to help a mother to use a breastfeeding supplementer

Show the mother how to:

- Use a fine nasogastric tube, or other fine plastic tubing, and a cup to hold the milk. If there is no very fine tube, use the best available.
- Cut a small hole in the side of the tube, near the end of the part that goes into the baby's mouth (this is in addition to the hole at the end).
- Prepare a cup of milk (expressed breast milk or artificial milk) containing the amount of milk that her baby needs for one feed. (Calculate the total for the day and divide by the number of feeds in one day – see page 294 in the *Participant's manual*.)
- Put one end of the tube along her nipple, so that her baby suckles the breast and the tube at the same time. Tape the tube in place on her breast.
- Put the other end of the tube into the cup of milk.
- Tie a knot in the tube if it is wide, or put a paper-clip on it, or pinch it. This controls the flow of milk, so that her baby does not finish the feed too fast.
- Control the flow of milk so that her baby suckles for about 30 minutes at each feed if possible. (Raising the cup makes the milk flow faster, lowering the cup makes the milk flow more slowly.)
- Let her baby suckle at any time that they are willing – not just when the mother is using the supplementer.
- Clean and sterilize the tube of the supplementer and the cup each time she uses them.

## Other ways to give supplements

### Using a syringe

Use a 5 mL or 10 mL syringe.

Fix a length of fine tubing to the adaptor, about 5 cm in length; for example, a piece cut from a fine feeding tube, including the adaptor end of the feeding tube.

The mother measures the milk for a feed into a small cup.

- She fills the syringe with milk from the cup.
- She puts the end of the tube into the corner of her baby's mouth, and presses out the milk slowly as the baby suckles.
- She refills the syringe and continues until her baby has had the complete feed.
- She should try to make the feed continue for 30 minutes (about 15 minutes at each breast).

### Using a dropper

- The mother measures the milk for a feed into a cup.
- She drops the milk into her baby's mouth from the dropper as they suckle.

### Dripping milk

Drip expressed breast milk down the breast and nipple, using a spoon or small cup. Position the baby at the breast so that they lick the milk drops. Slowly put the nipple into the baby's mouth, and help them to attach to the breast. You may need to continue for 3–4 days before the baby can suckle strongly.

## Exercise 39.A Relactation

### How to do the exercise:

- Use the information in the box Amount of milk to give to babies who cannot breastfeed on page 294 in your *Participant's manual*, to calculate the total amount of milk the baby needs.
- Use the information in the box How to help a woman to increase her supply of breast milk on page 300 in your *Participant's manual*, to decide how to decrease the milk as the mother relactates (see third point from the bottom in the box).

### Example:

Ada died soon after her baby was born. Ada's mother will look after the baby, and she wants to breastfeed him. She breastfed all her own children. The youngest is 12.

Ada's baby is now 4 weeks old and weighs 4.5 kg. Ada's mother will let the baby suckle, and she will feed the baby formula milk with a supplementer, while she waits for her breast milk to come back.

*How much artificial milk should Ada's mother give to the baby in total each day at the beginning?*

Each day the baby needs 150 mL/kg
So she needs (150 × 4.5) = 675 mL milk in total each day

After a few days, when Ada's mother starts to produce a little milk, she will start to reduce the amount of artificial milk by 30 mL each day.

*How much milk will she give on the first day that she reduces the amount?*

She will give (675 – 30) mL = 645 mL

*How much milk will she give the next day?*

She will give (645 – 30) mL = 615 mL

### To answer:

A baby aged 2 months has been bottle fed for one month. He has become very ill with diarrhoea, and formula milk feeds make the diarrhoea worse. His mother breastfed satisfactorily for the first 4 weeks, and wants to relactate. The baby seems willing to suckle at the breast. You will feed the baby donated expressed breast milk by cup while his mother's supply of breast milk builds up. You will reduce the volume of expressed breast milk by 30 mL per day. The baby weighs 4.0 kg.

*How much expressed breast milk will you give the baby by cup each day at the beginning?*

*How much expressed breast milk will you give the baby on the first day that you reduce the amount?*

*How much expressed breast milk will you give on the tenth day of reducing the amount?*

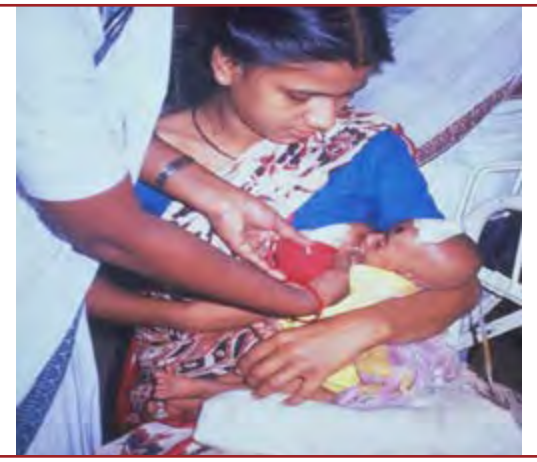
*How much milk will you give at each feed, if you feed the baby 10 times a day?*

*How many days should it take from when you start to reduce the amount to when you stop giving expressed breast milk altogether?*

## Demonstration of the use of a breastfeeding supplementer


This picture shows a mother breastfeeding her baby and using a breastfeeding supplementer. She bottle fed her baby and he became ill with diarrhoea, and then refused to breastfeed again. The mother decided to start breastfeeding again, and to use the supplementer to get her baby to suckle.

You can see the cup that has formula milk in it, and the tube going from the cup to the mother's breast and into the baby's mouth. After about 10 days, the mother was producing enough breast milk, and she was able to stop giving formula milk.




This picture shows another mother using a breastfeeding supplementer, in a similar way. This time you see the arrangement from above.

# Notes

# Notes (contd)

# Session 40

## Sustaining breastfeeding

## Objectives

After completing this session, participants will able to:

- help mothers to continue to breastfeed for up to 2 years or beyond
- support breastfeeding when they see mothers and babies for other reasons

## Introduction

Mothers may stop breastfeeding, among other reasons, because:

- of the attitudes and beliefs in their communities
- they have to resume work outside home
- health-care practices are not supportive.

Changes can be made with school and public education, and with social mobilization. If you have the opportunity to work with other sectors, use it to advocate for improved infant feeding practices and to identify areas of joint interest and concrete action.

Mothers' groups can enable women to support each other and to sustain breastfeeding. Health workers can identify existing groups to work with, or encourage women to form groups. They should make sure that the groups have information, give them some training, and refer mothers to them and receive referrals from them.

> **Key point:** However, health workers have an essential role to support and encourage women to breastfeed their babies, as part of their regular work. If they do not actively support breastfeeding, they may hinder it by mistake.

Facility-based and community-based health workers, and peer counsellors, have a very important role.

Baby-friendly practices in hospitals or at home deliveries, including antenatal preparation, can increase the numbers of women who initiate breastfeeding. But for mothers to establish and sustain good feeding practices, they need both baby-friendly deliveries and continuing support after delivery.

Research has shown that the more times a mother has support from a health worker or peer counsellor who has been trained in breastfeeding counselling, the more likely she is to sustain breastfeeding.

This support should be given to all mothers, at specified times, when help is most likely to be effective, and when mothers can expect it. We should not wait until a problem arises, or until a mother has already started mixed feeding, before we offer help. We call these times when a health worker helps a mother "contacts" because they can happen in different places: in hospital, or in a clinic, or on a community or home visit. The task that is needed at a particular contact is usually the same wherever the contact takes place, and whoever is responsible for doing it.

The clinical and counselling skills that you have learnt during this course should enable you to give mothers the help that they need during any of the contacts. But in order to ensure that you know what you have to do in your job, the times and purposes of possible contacts need to be identified, and the tasks that should be performed for each of them described.

## Health workers' role for sustaining breastfeeding

There are a basic seven contacts that all mothers need, as well as ongoing contacts that are more variable.

Most of the contacts are already included in the Baby-Friendly Hospital Initiative, or can be built into other programmes, such as for neonatal survival. They may be done by different health workers, in a health facility or in the community. They may be done by peer counsellors, who are specially trained for the task.

The exact timing of the different contacts can vary according to local policy and services. But in each district or country, they should be the same for all mothers and infants.

It is important to think of the contacts as a connected sequence, to specify the tasks that need to be done at each contact, and to make sure that appropriate health workers or peer counsellors are trained and supervised to do these tasks. The contacts are included in the child's health records, and recorded when they have been done.

## Job aids for postnatal and ongoing contacts

For health workers to carry out the postnatal contacts efficiently, it is useful to have simple job aids to remind them what to do each time. These can be collected into a small notebook that they can keep with them to refer to if necessary.

Here we will look at job aids for:

1. postnatal contacts 1–5
2. ongoing contacts.

It is especially important to discuss breastfeeding when you weigh or measure the length of a baby. Growth monitoring is a helpful way to know whether a baby is getting enough breast milk. Poor growth is an important sign that a mother and baby need help (see SESSION 8: BUILDING CONFIDENCE AND GIVING SUPPORT, and SESSION 34: "NOT ENOUGH MILK").

If a mother does not have a growth chart, or if you cannot weigh a baby, you can still talk about breastfeeding. You should have a good idea whether breastfeeding is going well from the baby's appearance and behaviour. You can ask about the baby's urine output.

## How a health worker can help to sustain breastfeeding

Every time you see a mother, try to build her confidence. Use your counselling skills.

- Praise her for what she and her baby are doing right.
- Give relevant information, and suggest something appropriate.

When a mother brings her baby to a health facility for a routine procedure, for example, weighing or immunization, and if everything is satisfactory, the health worker often says nothing. She may only tell a mother if something is wrong.

Mothers are sometimes confused or even upset if a health worker says nothing, or sounds critical. They may not feel encouraged to come again.

Health workers are often short of time, but they can use the time that they have to say something encouraging and supportive.

# SEVEN+ CONTACTS TO SUSTAIN BREASTFEEDING

## Contact 1 – Antenatal

- The health worker discusses benefits and management of breastfeeding, including about early skin-to-skin contact, to prevent surprises.
- At a second antenatal contact, the health worker discusses more details and the mother's concerns.

## Contact 2 – At delivery, in a maternity facility or at home

- The baby is placed on the mother's naked chest immediately after delivery for early skin-to-skin contact, and allowed to crawl to the breast to attach and suckle.

## Contact 3 – Postnatal 1, within 24 hours

- This may be within 6 hours in a maternity facility (by the birth attendant), or on the first day after a home delivery.
- The health worker counsels the mother; helps her to position and attach the baby at the breast; and informs her about follow-up support and mothers' groups.

## Contact 4 – Postnatal 2, at 2–4 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

## Contact 5 – Postnatal 3, at 5–8 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

## Contact 6 – Postnatal 4, between 14 and 28 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

## Contact 7 – Postnatal 5, between 6 and 8 weeks

- This may take place at the mother's postpartum contact (6 weeks).
- The health worker checks the condition of the mother and baby; makes sure that breastfeeding is going well; counsels the mother about any difficulties; and encourages exclusive breastfeeding.

## Ongoing contacts – after 2 months

- These should take place at all growth monitoring and Immunization contacts, or when the mother and baby are in contact for illness or family planning.
- The health worker checks that breastfeeding is going well; counsels the mother about any difficulties; encourages exclusive breastfeeding up to 6 months; and, from 6 months, introduction of complementary foods with continued breastfeeding to 2 years.
- Mothers who are living with HIV may need referral for further individual counselling, according to national policy.

# Job aid: Postnatal contacts

- Use counselling skills – Listening and learning skills and Skills for building confidence and giving support
- Follow up on previous observations and questions

## Ask:

- How is breastfeeding going – how many times, length of feeds, comfort, condition of breasts
- Is the baby receiving other fluids or foods, bottles, dummies?
- Baby's health and behaviour
- Pregnancy, delivery, early feeds
- Mother's condition and family planning
- Previous infant feeding experience
- Family and social situation – support at home, work

## Observe:

- Condition of the mother
- Condition of the baby
- A breastfeed – including condition of the breasts
- Child's growth curve – weight and/or length/height, as appropriate

## Help the mother to:

- Position and attach her baby if necessary
- Express milk and cup-feed her baby – if necessary, if not done before

## Explain or recap as needed:

- How milk "comes in"
- Feeding pattern – demand feeding (baby with mother, respond day and night, let baby finish first breast, offer second)
- Exclusive breastfeeding – supplements not needed
- Signs the baby has what they need – passing urine, contented

## Respond to any other questions and worries:

- Help (including possible referral) if needed with any difficulties:
  - Poor (or excessive) weight gain
  - Concerns about "not enough milk"
  - Concerns about baby's crying
  - Suckling difficulties
  - Flat, inverted or large nipples
  - Sore nipples
  - Engorgement
  - Mastitis
  - Refusal to feed

# JOB AID: ONGOING CONTACTS

- Use counselling skills – LISTENING AND LEARNING SKILLS and SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT
- Follow up on previous observations and questions

## Ask:

- How is breastfeeding going – how many times, length of feeds, comfort, condition of breasts?
- Is the baby receiving other fluids or foods, bottles, dummies?
- Baby's health and behaviour
- Pregnancy, delivery, early feeds
- Mother's condition and family planning
- Previous infant feeding experience
- Family and social situation – support at home, work

## Observe:

- (Condition of the mother)
- Condition of the baby
- (A breastfeed, including condition of the breasts, if there is any difficulty)
- Growth monitoring – check baby's weight and/or length/height, as appropriate

## Discuss:

- The importance of exclusive breastfeeding to 6 months
- Introduction of complementary foods from 6 months – AFATVRH: age-appropriate, frequency, amount, thickness, variety, responsive feeding and hygiene
- Continuing to demand feed as often as the infant wants, day and night
- Family support – talk to family if possible
- Family planning
- Preparation for returning to work
- Any other questions

## Respond to any other questions and worries:

- Help (including possible referral) if needed with any difficulties:
  - Poor (or excessive) weight gain
  - Concerns about "not enough milk"
  - Concerns about baby's crying
  - Suckling difficulties
  - Flat, inverted or large nipples
  - Sore nipples
  - Engorgement
  - Mastitis
  - Refusal to feed


OR



OR


## Demonstration 40.A Saying too little

### Read out the story:

Ester has brought her baby Dan for weighing at 5 months. He is exclusively breastfed, and perfectly well. He has gained 800 g in the last month, and now weighs 7 kg.

### Play the health worker:

**Health worker:** (Pretend to weigh Ester's baby and mark his growth chart. Do not say anything while you do this. When you have finished, hand Ester the growth chart and say what follows.)

**Health worker:** *All right Ester, thank you. Make sure that you keep Dan's growth chart carefully and come back next month.*

## Demonstration 40.B Sustaining breastfeeding

**Health worker:** (As you pretend to weigh the baby) *How are you feeding Dan?*
**Ester:** *Just breastfeeding, whenever he wants to.*

**Health worker:** *Oh, that's good.*
(As you fill in his growth chart)
*Look at Dan's growth line now! What do you think of that?*
**Ester:** *It is going up, isn't it? Does that mean that he is gaining weight?*

**Health worker:** *Yes, Dan gained quite a lot of weight last month – and that is just on your breast milk.* (**praise**)
*You know, breastfeeding helps to keep a child healthy up to the age of 2 years or more.* (**information**)
*Have you thought about starting some other food yet, as well as continuing to breastfeed?* (**suggestion**)

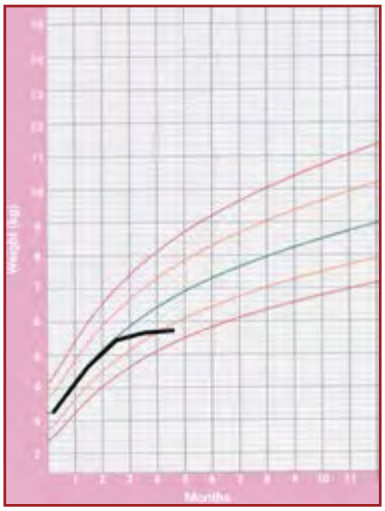
## Exercise 40.A Sustaining breastfeeding with growth monitoring

### How to do the exercise:

- Study the growth charts of the following babies, and the short notes that go with them.
- Read the **Example** of Baby 1 for which the answers are given.
- Then look at the charts **To answer** for Babies 2, 3, 4 and 5, and answer the questions about them.
- When you are ready, discuss your answers with the trainer.

### Example:

**Baby 1** is exclusively breastfed. She slept with her mother until 8 weeks ago. Now she sleeps in a separate bed.



*What is Baby 1's mother doing that you could praise?*
(Her mother has breastfed exclusively all this time.)

*What do you think about Baby 1's recent weight gain?*
(Her growth is slowing down.)

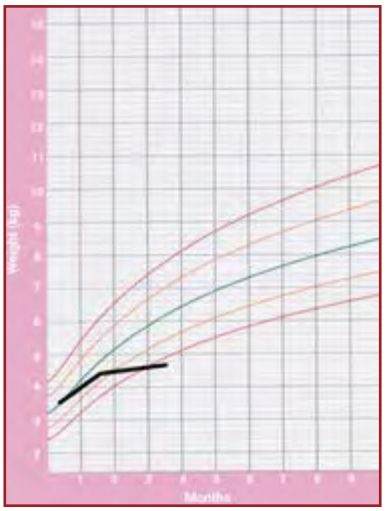
*Why may this have happened?*
(She stopped having night feeds.)

*What would you suggest to his mother about feeding her now?*
(Let her baby sleep with her again, to breastfeed at night.
Soon she should add complementary foods.)

### To answer:

**Baby 2** has come for immunization. Her mother says that she is well. She is a very good baby and cries very little. She only wants to feed about 4–5 times a day, which her mother finds helpful, because she is very busy.

*What could you say to show that you accept how Baby 2's mother feels?*



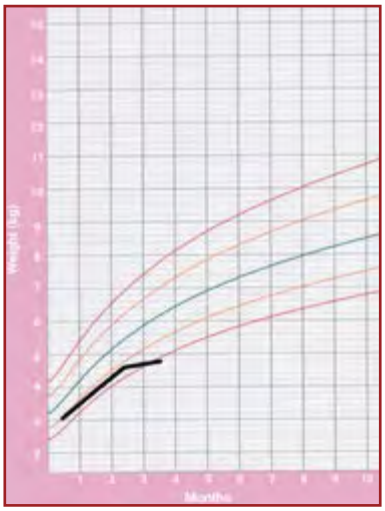
*What do you think of Baby 2's weight gain?*

*What is the reason?*

*What would you like to suggest to Baby 2's mother about feeding her?*

**Baby 3** was exclusively breastfed until last month. Now her mother gives her drinks of water, because the weather is hot and she seems so thirsty.

*What do you think of Baby 3's weight gain?*



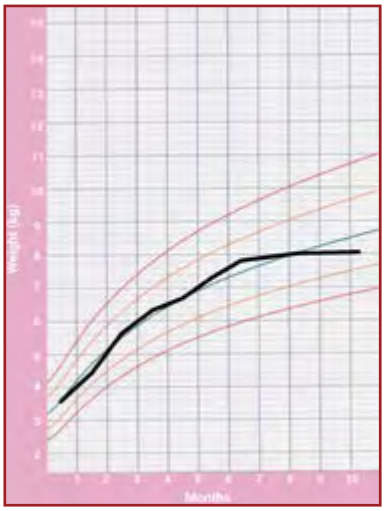
*What is the reason for her weight this month?*

*What relevant information could you give to Baby 3's mother? Try to give positive information.*

*What would you suggest to Baby 3's mother?*

**Baby 4** has come for measles immunization. She breastfeeds frequently by day, and sleeps with her mother and breastfeeds at night. Two months ago, her mother started to give her thin cereal porridge once a day.

*What is Baby 4's mother doing right?*



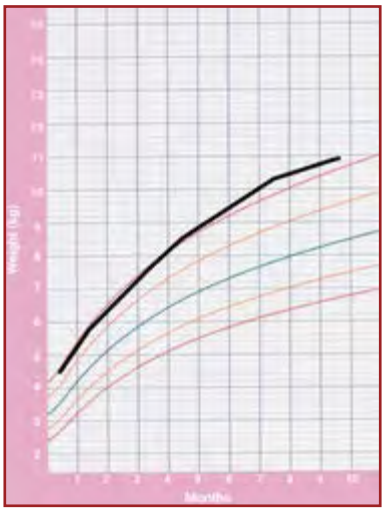
*What do you think of Baby 4's weight gain?*

*What do you think is the reason for the change?*

*What two things would you suggest to Baby 4's mother?*

**Baby 5's** mother has come for help with family planning. When you have given her this help, you ask about the baby. She was exclusively breastfed until the age of 6 months. Since then, she has had complementary food at first twice, and more recently four times, a day. She continues to breastfeed at night and several times during the day.

*What do you think about Baby 5's growth?*



*What can you say to praise her mother?*

*What would you suggest to her mother about breastfeeding?*

*What two things would you suggest to Baby 4's mother?*

## BREASTFEEDING SUPPORT GROUPS

- A group may be started by a health worker; by an existing women's group; by a group of mothers who feel that breastfeeding is important; or by mothers who meet in the antenatal clinic or maternity facility and who want to continue to meet and help each other.
- A group of breastfeeding mothers meets together every 1–4 weeks, often in one of their homes, or somewhere in the community. They can have a topic to discuss, such as "The advantages of breastfeeding" or "Overcoming difficulties".
- They share experiences, and help each other with encouragement and with practical ideas about how to overcome difficulties. They learn more about how their bodies work.
- The group needs someone who is accurately informed about breastfeeding, to train them. They need someone who can correct any mistaken ideas and suggest solutions to difficulties. This helps the group to be positive and not to complain. This person could be a health worker, until someone in the group has learnt enough to play this role.
- The group needs a source of information whom they can refer to if they need help. This could be a health worker trained in breastfeeding, whom they see from time to time. The group also needs up-to-date materials to educate themselves about breastfeeding. The health worker can help them to get these.
- Mothers can also help each other at other times, and not only at meetings. They can visit each other when they are worried or depressed, or when they don't know what to do.
- Breastfeeding support groups can provide an important source of contact for socially isolated mothers.
- They can be a source of support that builds mothers' confidence about breastfeeding and reduces their worries.
- They can give a mother the extra help that she needs, from women like herself, that health services cannot give.

# Notes

# Session 41

## Clinical practice session 3: Taking a feeding history – 0 up to 6 months

### Objectives

After completing this session, participants will able to:

- take a feeding history using the Job aid: Feeding history – 0 up to 6 months and appropriate counselling skills
- use the Job aid: Feeding history – 0 up to 6 months, to help decide whether a mother has difficulty with breastfeeding and how to counsel her

### Preparation

You are going to continue to practise assessing a breastfeed and using Listening and learning skills and Skills for building confidence and giving support.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups, and take it in turns to talk to a mother, while the other members of the group observe.

If there is an opportunity, you will practise helping a mother to position her baby at the breast, or to overcome any difficulty. If possible, you will observe and help a mother to express her breast milk. It is useful for any mother to learn to hand-express her milk, so you can offer to show any suitable woman how to express.

### What to take with you:

- One copy of the Job aid: Feeding history – 0 up to 6 months
- One copy of the Counselling skills checklist
- One copy of the Job aid: Breastfeed observation
- Pencil and paper to make notes
- Copies of Counselling card 3: Good attachment, Counselling card 4: Breastfeeding positions, and the *Guidance on the use of counselling cards*.
- Each group or pair of participants should have a doll to use for teaching mothers.

You do not need to take anything else – no books manuals or handbags.

## How to do the clinical practice:

- Talk to and observe mothers and babies, as for the previous clinical practice sessions.
- Use the Job aid: Feeding history – 0 up to 6 months for taking a history.
- Use the Counselling skills checklist.
- Each group or pair of participants should have a doll to use for teaching mothers.

Start work as a group of 3–4, with one participant taking a history from a mother, and the trainer giving feedback with the whole group together.

Then you will divide into two pairs, and the trainer can divide their time between the two pairs, to observe, comment and help where necessary.

One participant should take a full breastfeeding history from the mother, using all six sections of the Job aid: Feeding history – 0 up to 6 months. Use your Listening and learning skills, and try not to ask too many questions.

Practise thinking of the most relevant questions for this mother. Practise your Skills for building confidence and giving support, and avoid giving a lot of advice.

If a mother has a breastfeeding difficulty, try to decide the reason, and how to help her. If it is a difficulty that you have not discussed in class or are unsure about, talk to the trainer before you help the mother or suggest what she should do.

When you are counselling the mother, you can share the Counselling card 3: Good attachment and Counselling card 4: Breastfeeding positions with her, if needed.

## What to do on the ward:

Take it in turns to talk to a mother and take the feeding history for a baby 0 up to 6 months old.

The other participants should stand quietly in the background.

Make **specific** observations of the participant-counsellor's skills.

Mark a tick on your Counselling skills checklist when the participant-counsellor uses a skill, to help you remember for the discussion.

## Back in the classroom:

Fill in your Competency progress form:

- Record each competency that you practised during the session.
- If there are some competencies that you have not yet practised, find an opportunity in the next clinical practice.

# JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

## Particular concerns about feeding of child:

### FEEDING

- Milk (breast milk, formula, cow's milk, other)
- Frequency of milk feeds
- Length of breastfeeds/quantity of other milks
- Night feeds
- Other foods in addition to milk (when started, what, frequency)
- Other fluids in addition to milk (when started, what, frequency)
- Use of bottles and how cleaned
- Feeding difficulties (breastfeeding/other feeding)

### HEALTH

- Growth chart (birth weight, weight now; length at birth, length now)
- Urine frequency per day (6 times or more)
- Stools (frequency, consistency)
- Illnesses

### PREGNANCY, BIRTH AND EARLY FEEDS (where applicable)

- Antenatal care
- Feeding discussed at antenatal care
- Delivery experience
- Rooming-in
- Prelacteal feeds
- Postnatal help with feeding

### MOTHER'S CONDITION AND FAMILY PLANNING

- Age
- Health – including nutrition and medications
- Breast health
- Family planning

### PREVIOUS INFANT FEEDING EXPERIENCE

- Number of previous babies
- How many breastfed and for how long
- If breastfed – exclusive or mixed fed
- Other feeding experiences

### FAMILY AND SOCIAL SITUATION

- Work situation
- Economic situation
- Family's attitude to infant feeding practices

# Job aid: Breastfeed observation

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

## Did the counsellor:

### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Competency progress form

After each clinical practice, put a tick in the boxes for each skill you have practised.

For each mother and baby that you see, you can put a tick in one or more box.

Discuss your progress with your trainer, and try to practise as many competencies as possible.

| Core competencies | | | |
|---|---|---|---|
| 1. Use Listening and learning skills (using list of 6 skills) | | | |
| 2. Use Skills for building confidence and giving support (using list of 6 skills) | | | |
| 3. Assess a breastfeed (using Job aid: Breastfeed observation) | | | |
| 4. Position a baby at the breast<br>• sitting<br>• lying down<br>• reclining<br>• after caesarian section<br>• other | | | |
| 5. Help a mother to attach her baby at the breast<br>• cradle hold<br>• underarm<br>• with the opposite arm<br>• other | | | |
| 6. Explain to a mother the optimal pattern of breastfeeding (unrestricted or demand feeding) | | | |
| 7. Help a mother to express her milk by hand | | | |
| 8. Help a mother to cup-feed her baby | | | |
| 9. Plot and interpret a child's growth chart | | | |
| 10. Take a breastfeeding history | | | |
| 11. Inform a woman about optimal infant feeding (early contact, exclusive breastfeeding for 6 months, and continued breastfeeding to 2 years) | | | |
| 12. Counsel a pregnant woman about breastfeeding (advantages and management) | | | |

| COMPOUND COMPETENCIES | | | |
|---|---|---|---|
| 13. Help a woman to initiate breastfeeding within an hour after delivery | | | |
| 14. Support exclusive breastfeeding for the first 6 months of life | | | |
| 15. Help a mother to continue breastfeeding up to 2 years of age or beyond | | | |
| 16. Help a mother with "not enough milk" | | | |
| 17. Help a mother with a baby who cries frequently | | | |
| 18. Help a mother whose baby is refusing to breastfeed | | | |
| 19. Help a mother who has flat or inverted nipples | | | |
| 20. Help a mother with engorged breasts | | | |
| 21. Help a mother with sore or cracked nipples | | | |
| 22. Help a mother with mastitis | | | |
| 23. Help a mother to breastfeed<br>• a low-birth-weight baby<br>• a sick baby<br>• twins | | | |
| 24. Help a mother to increase her breast milk or to start breastfeeding again | | | |
| 25. Counsel a woman living with HIV antenatally about feeding choices | | | |

# Notes

# Session 42

## Clinical practice session 4: Counselling mothers in different situations

### Objectives

After completing this session, participants will able to:

- counsel a pregnant woman about breastfeeding
- use the Job aid: Postnatal contacts
- help mothers at all postnatal contacts after normal and operative delivery who have difficulty breastfeeding;
- counsel mothers with different breast conditions
- counsel mothers with low-birth-weight babies and twins
- counsel mothers with sick children
- counsel mothers who are mixed feeding before 6 months of age

### Preparation

You are going to practise using the Job aid: Postnatal contacts, and all the clinical and counselling skills that you have learnt.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups, and take it in turns to talk to a mother, while the other members of the group observe.

### What to take with you:

- Copies of the Job aid: Postnatal contacts
- One copy of the Seven+ contacts to sustain breastfeeding
- Copies of the Job aid: Breastfeed observation
- The Job aid: Feeding history – 0 up to 6 months, to refer to if necessary
- One copy of the Counselling skills checklist
- Pencil and paper to make notes
- Each group or pair of participants should have a doll to use for teaching mothers.

You do not need to take anything else – no books, manuals or handbags.

## How to do the clinical practice:

- Learn all that you can about the mother's situation and her breastfeeding experiences, and practise using your LISTENING AND LEARNING SKILLS and history-taking skills.
- Assess a breastfeed, and examine the mother and baby if necessary.
- Practise building the mother's confidence and giving her support.
- Help the mother, or suggest something helpful if you can.
- Use the JOB AID: POSTNATAL CONTACTS to remind you of all the tasks that you need to complete.

You work in pairs. You will go to different parts of the health facility, so that you see mothers in different situations as far as possible.

## What to do on the ward:

Take it in turns to talk to a mother; if a mother has a difficulty, use all your skills to help her.

The other participant should stand quietly in the background.

Make **specific** observations of the participant-counsellor's skills.

Mark a tick on your COUNSELLING SKILLS CHECKLIST when the participant-counsellor uses a skill, to help you remember for the discussion.

When you have finished, discuss your experience with your trainer.

Discuss what you learnt from the mother, and whether her situation is common or unusual.

Discuss what else it might be possible to do in other similar situations.

## Back in the classroom:

Fill in your COMPETENCY PROGRESS FORM:

- Record each competency that you practised during the session.
- With the trainer, review which competencies you have and have not practised during the course. Discuss how you can practise them when you return to your place of work.

# Job aid: Postnatal contacts

- Use counselling skills – Listening and learning skills and Skills for building confidence and giving support
- Follow up on previous observations and questions

## Ask:

- How is breastfeeding going – how many times, length of feeds, comfort, condition of breasts
- Is the baby receiving other fluids or foods, bottles, dummies?
- Baby's health and behaviour
- Pregnancy, delivery, early feeds
- Mother's condition and family planning
- Previous infant feeding experience
- Family and social situation – support at home, work

## Observe:

- Condition of the mother
- Condition of the baby
- A breastfeed – including condition of the breasts
- Child's growth curve – weight and/or length/height, as appropriate

## Help the mother to:

- Position and attach her baby if necessary
- Express milk and cup-feed her baby – if necessary, if not done before

## Explain or recap as needed:

- How milk "comes in"
- Feeding pattern – demand feeding (baby with mother, respond day and night, let baby finish first breast, offer second)
- Exclusive breastfeeding – supplements not needed
- Signs the baby has what they need – passing urine, contented

## Respond to any other questions and worries:

- Help (including possible referral) if needed with any difficulties:
  - Poor (or excessive) weight gain
  - Concerns about "not enough milk"
  - Concerns about baby's crying
  - Suckling difficulties
  - Flat, inverted or large nipples
  - Sore nipples
  - Engorgement
  - Mastitis
  - Refusal to feed

## Seven+ contacts to sustain breastfeeding

### Contact 1 – Antenatal

- The health worker discusses benefits and management of breastfeeding, including about early skin-to-skin contact, to prevent surprises.
- At a second antenatal contact, the health worker discusses more details and the mother's concerns.

### Contact 2 – At delivery, in a maternity facility or at home

- The baby is placed on the mother's naked chest immediately after delivery for early skin-to-skin contact, and allowed to crawl to the breast to attach and suckle.

### Contact 3 – Postnatal 1, within 24 hours

- This may be within 6 hours in a maternity facility (by the birth attendant), or on the first day after a home delivery.
- The health worker counsels the mother; helps her to position and attach the baby at the breast; and informs her about follow-up support and mothers' groups.

### Contact 4 – Postnatal 2, at 2–4 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

### Contact 5 – Postnatal 3, at 5–8 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

### Contact 6 – Postnatal 4, between 14 and 28 days

- The health worker checks the condition of the mother and baby; follows up on previous contacts; observes a breastfeed; counsels the mother about any difficulties; helps with positioning and attachment; explains the feeding pattern; and encourages exclusive breastfeeding.

### Contact 7 – Postnatal 5, between 6 and 8 weeks

- This may take place at the mother's postpartum contact (6 weeks).
- The health worker checks the condition of the mother and baby; makes sure that breastfeeding is going well; counsels the mother about any difficulties; and encourages exclusive breastfeeding.

### Ongoing contacts – after 2 months

- These should take place at all growth monitoring and Immunization contacts, or when the mother and baby are in contact for illness or family planning.
- The health worker checks that breastfeeding is going well; counsels the mother about any difficulties; encourages exclusive breastfeeding up to 6 months; and, from 6 months, introduction of complementary foods with continued breastfeeding to 2 years.
- Mothers who are living with HIV may need referral for further individual counselling, according to national policy.

# Job aid: Breastfeed observation

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

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

# JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS

**Mother's name:** **Date:**

**Baby's name:** **Baby's age:**

## Particular concerns about feeding of child:

### FEEDING

- Milk (breast milk, formula, cow's milk, other)
- Frequency of milk feeds
- Length of breastfeeds/quantity of other milks
- Night feeds
- Other foods in addition to milk (when started, what, frequency)
- Other fluids in addition to milk (when started, what, frequency)
- Use of bottles and how cleaned
- Feeding difficulties (breastfeeding/other feeding)

### HEALTH

- Growth chart (birth weight, weight now; length at birth, length now)
- Urine frequency per day (6 times or more)
- Stools (frequency, consistency)
- Illnesses

### PREGNANCY, BIRTH AND EARLY FEEDS (where applicable)

- Antenatal care
- Feeding discussed at antenatal care
- Delivery experience
- Rooming-in
- Prelacteal feeds
- Postnatal help with feeding

### MOTHER'S CONDITION AND FAMILY PLANNING

- Age
- Health – including nutrition and medications
- Breast health
- Family planning

### PREVIOUS INFANT FEEDING EXPERIENCE

- Number of previous babies
- How many breastfed and for how long
- If breastfed – exclusive or mixed fed
- Other feeding experiences

### FAMILY AND SOCIAL SITUATION

- Work situation
- Economic situation
- Family's attitude to infant feeding practices

# COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

## Did the counsellor:

### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Competency progress form

After each clinical practice, put a tick in the boxes for each skill you have practised.

For each mother and baby that you see, you can put a tick in one or more box.

Discuss your progress with your trainer, and try to practise as many competencies as possible.

| Core competencies | | | |
|---|---|---|---|
| 1. Use Listening and learning skills (using list of 6 skills) | | | |
| 2. Use Skills for building confidence and giving support (using list of 6 skills) | | | |
| 3. Assess a breastfeed (using Job aid: Breastfeed observation) | | | |
| 4. Position a baby at the breast<br>• sitting<br>• lying down<br>• reclining<br>• after caesarian section<br>• other | | | |
| 5. Help a mother to attach her baby at the breast<br>• cradle hold<br>• underarm<br>• with the opposite arm<br>• other | | | |
| 6. Explain to a mother the optimal pattern of breastfeeding (unrestricted or demand feeding) | | | |
| 7. Help a mother to express her milk by hand | | | |
| 8. Help a mother to cup-feed her baby | | | |
| 9. Plot and interpret a child's growth chart | | | |
| 10. Take a breastfeeding history | | | |
| 11. Inform a woman about optimal infant feeding (early contact, exclusive breastfeeding for 6 months, and continued breastfeeding to 2 years) | | | |
| 12. Counsel a pregnant woman about breastfeeding (advantages and management) | | | |

| COMPOUND COMPETENCIES | | | |
|---|---|---|---|
| 13. Help a woman to initiate breastfeeding within an hour after delivery | | | |
| 14. Support exclusive breastfeeding for the first 6 months of life | | | |
| 15. Help a mother to continue breastfeeding up to 2 years of age or beyond | | | |
| 16. Help a mother with "not enough milk" | | | |
| 17. Help a mother with a baby who cries frequently | | | |
| 18. Help a mother whose baby is refusing to breastfeed | | | |
| 19. Help a mother who has flat or inverted nipples | | | |
| 20. Help a mother with engorged breasts | | | |
| 21. Help a mother with sore or cracked nipples | | | |
| 22. Help a mother with mastitis | | | |
| 23. Help a mother to breastfeed<br>• a low-birth-weight baby<br>• a sick baby<br>• twins | | | |
| 24. Help a mother to increase her breast milk or to start breastfeeding again | | | |
| 25. Counsel a woman living with HIV antenatally about feeding choices | | | |

# Notes

# MODULE 5

## Complementary feeding

# Session 43

## The importance of complementary feeding

### Objectives

After completing this session, participants will be able to:

- explain the importance of continuing breastfeeding
- define complementary feeding
- explain why there is an optimal age for children to start complementary feeding
- list the Key messages from this session
- list their current practices related to complementary feeding

### Introduction

So far, we have concentrated on the time from birth to 6 months of age. The period from 6 months of age until 2 years is also of critical importance in a child's growth and development. As health workers, you have an important role in helping families during this time.

During the next few sessions, we will develop a list of 10 Key messages to discuss with caregivers about complementary feeds. The Key messages are listed in the back of your *Participant's manual*.

### Sustaining breastfeeding

Breast milk alone, **exclusive breastfeeding**, should continue for the first 6 months.

From 6 up to 12 months, breastfeeding continues to provide more than half, or about 60%, of the child's nutritional needs, and from 12 up to 24 months, at least one third, or about 40%, 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.

Feeding counsellors like you 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.

#### KEY MESSAGE 1

**BREASTFEEDING FOR 2 YEARS OR LONGER HELPS A CHILD TO DEVELOP AND GROW STRONG AND HEALTHY**

# Definition of complementary feeding

Complementary feeding means giving other foods in addition to breast milk.

These other foods are called **complementary foods**.

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 foods and in adequate amounts, so the child can continue to grow.

During the period of **complementary feeding**, the young child gradually becomes accustomed to eating family foods, though breastfeeding continues to be an important source of nutrients and protective factors until the child is at least 2 years old.

# The optimal age to start complementary feeding

Our body uses food for energy to keep alive, to grow, to fight infection, and to move around and 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.

# The energy gap

On this graph, each column represents the total energy needed at a specific 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 breast milk.

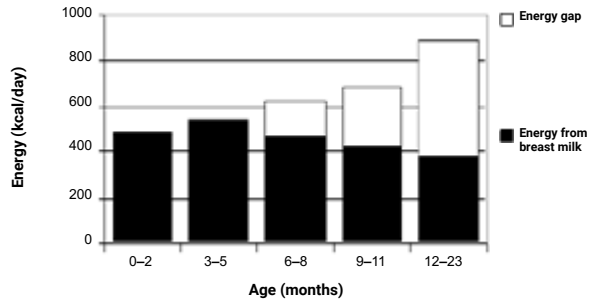
From about 6 months onwards, there is a **gap** between the total energy needs and the energy provided by breast milk. The gap increases as the child gets bigger.

This graph illustrates an "average" child and the nutrients supplied by breast milk 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.

43/4

**Energy required by age and the amount supplied from breast milk**



## KEY MESSAGE 2

### STARTING OTHER FOODS IN ADDITION TO BREAST MILK AT 6 COMPLETED MOTHS HELPS A CHILD TO GROW WELL

After 6 months, babies need to learn to eat thick porridge, puree and mashed foods, as these foods fill the energy gap more than liquids.

At 6 completed months of age, it becomes easier to feed thick porridge, puree 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.

Most babies do not need complementary foods before 6 months of age. If the baby is less than 6 months old, counsel the mother on how to breastfeed exclusively in a way that helps the baby to get enough breast milk.

If the baby is not receiving breast milk, continue using adequate replacement milk feeding until 6 months of age, rather than adding complementary foods early.

## RISKS OF STARTING COMPLEMENTARY FOODS TOO EARLY

Adding complementary foods **too soon** (before 6 months) may:

- take the place of breast milk, 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 because these are easy for babies to eat
- increase the risk of illness because fewer of the protective factors in breast milk are consumed
- increase the risk of diarrhoea because the complementary foods may not be as clean or as easy to digest as breast milk
- increase the risk of wheezing and other allergic conditions because the baby cannot yet digest and absorb non-human protein well
- increase the mother's risk of another pregnancy if breastfeeding is less frequent.

## RISKS OF STARTING COMPLEMENTARY FOODS TOO LATE

Starting complementary foods **too late** is also a risk because the child:

- does not receive the extra food required to meet their growing needs
- grows and develops more slowly
- might not receive the nutrients needed to avoid malnutrition and deficiencies, such as anaemia from lack of iron.

Most babies do not need complementary foods before 6 completed months of age.

All babies older than 6 completed months of age should receive complementary foods.

## EXERCISE 43.A ASSESS YOUR PRACTICES

| Does this practice occur? | With all children | With some children | Does not occur | Comments |
|---|---|---|---|---|
| Weigh the child | | | | |
| Measure the child's length | | | | |
| Look at the child's growth chart | | | | |
| Discuss how the child is feeding | | | | |
| Note on the 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 activities occurring in your health facility:

Least-frequent activities occurring in your health facility:

## Summary

The nutritional status of a child affects their overall health. Health is not only growth and development but also the ability to fight off illness and to 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 children's health.

# Notes

# Session 44

## Foods to fill the energy gap

### 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 a child's food
- list the Key message from this session

### Introduction

As a young child gets older, breast milk continues to provide energy; however the child's energy needs increase as the child grows. If these gaps are not filled, the child will stop growing or grow only at a slow rate. The child who is not growing well may also be more likely to become ill or to recover less quickly from an illness. As health workers, you have an important role to help families use appropriate complementary foods and feeding techniques to fill the gaps.

### Foods that can fill the energy gap

All foods provide some energy. However, every community has at least one **staple** or main food. 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.

It is important that you know what are the main staples that families eat in your area. Then you can help them to use these foods for feeding their young children.


The stomach of a young child is small. At 8 months of age, the stomach can hold about 200 mL at one time. Thin foods and liquids fill it quickly.

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.

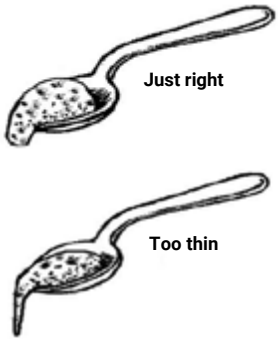
# KEY MESSAGE 3

## FOODS THAT ARE THICK ENOUGH TO STAY ON THE SPOON GIVE MORE ENERGY TO THE CHILD

44/4

### KEY MESSAGE 3: THICK FOODS

Foods that are thick enough to stay on the spoon give more energy to the child




## WAYS TO ENRICH A CHILD'S FOOD

**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. 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 it 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 or soured milk, coconut milk 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 groundnut paste (peanut butter) or sesame seed paste (tahini/sim sim).
  - Add a spoonful of margarine, ghee or oil.

## Fats and oils

- Fats and oils are concentrated sources of energy. In situations where a child's energy intake is low, a little oil or fat (no more than half a teaspoon per meal), can be added to the child's bowl of food (after cooking), to give extra energy in a small volume. The addition of fatty/oily foods also makes thicker porridge or other staple 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, the child may become full before they have eaten all the food. This means they may get the energy from the oil but fewer 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, jaggery 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 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 breast milk.
- For children aged over 6 months 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 (see Session 45: Foods to fill the iron and vitamin A gaps).

## Fermented porridge or germination of grain for flour

### 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 are 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 that is 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.

# Notes

# Notes (contd)

# Session 45

## Foods to fill the iron and vitamin A gaps

### 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

### Introduction

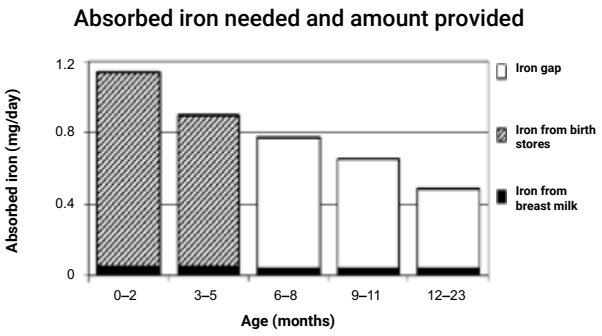
So now, our child has an energy-rich, thick staple in their bowl to help fill the energy gap. In this session, we will look at ways to ensure the child gets enough iron and vitamin A.

### The iron gap

Another nutrient gap to be filled is for iron. The young child needs iron to make new blood, to assist in growth and development and to help the body to fight infections.

45/2

**The iron gap**




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 their needs for the first 6 months (this is the striped area).

The black area along the bottom of the columns shows us that there is some iron provided by breast milk all the time breastfeeding continues.

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.

These iron stores are used up over this first 6 months, so after that time we see a gap between the child's needs and what they receive from breast milk. This gap needs to be filled by complementary foods (the white area – this is the iron gap).

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 if the child is eating foods that are 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

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

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

Animal-source foods should be eaten daily, or as often as possible. This is especially important for the non-breastfed child.

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, so foods made from whole milk are good sources of vitamin A.

Foods made from milk (whole milk or skimmed or powdered milk) 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 store of nutrients and a rich source of vitamin A.

It can be hard for children to meet their iron needs without a variety of animal 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.

### KEY MESSAGE 4

**ANIMAL-SOURCE FOODS ARE ESPECIALLY GOOD FOR CHILDREN, TO HELP THEM GROW STRONG AND LIVELY**

## The importance of legumes: pulses, nuts and seeds

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

### KEY MESSAGE 5

**PEAS, BEANS, LENTILS, NUTS AND SEEDS ARE ALSO GOOD FOR CHILDREN**

Some ways these foods could be prepared in a form 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/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 legume (for example, rice and beans), or adding a milk product or egg to the legume (for example, maize meal with milk), is helpful.

# Iron absorption

As well as pulses, dark-green leaves are also a source 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.

## 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 the child has anaemia).

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

### Iron absorption is decreased by:

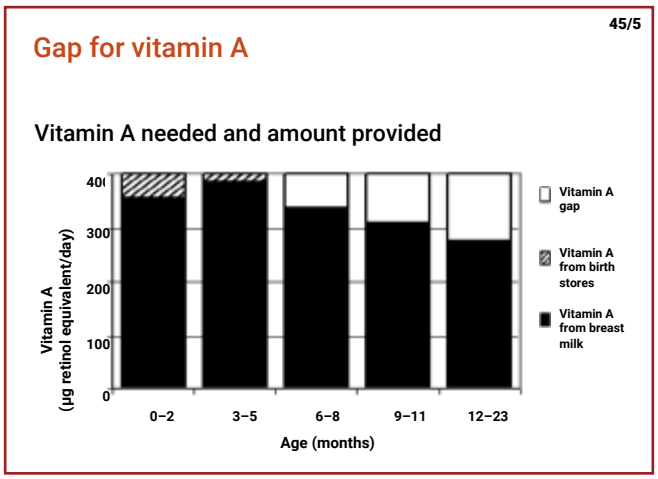
- drinking teas and coffee
- foods that are high in fibre such as bran
- foods that are rich in calcium.[1]

# Foods that can fill the vitamin A gap

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

45/5

Gap for vitamin A




Again, on this graph, the top of each column represents the amount of vitamin A that the child needs each day. Breast milk supplies a large part of the vitamin needed, provided the child continues to receive breast milk 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.

[1] Foods that are rich in calcium such as milk and cheese inhibit iron absorption, but are needed for calcium intake.

Good foods to fill this gap are dark-green vegetables and yellow-coloured vegetables and fruits. 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 fortified with vitamin A.

Unbleached red palm oil is also rich in vitamin A.

Vitamin A can be stored in a child's body for a few months. Encourage families to feed foods that are 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 helps to meet many nutrient needs.

Health workers need to be aware of the products that are available in the area. If the health worker knows about the products, they can discuss with an individual family whether these products are useful for their child.

### KEY MESSAGE 6

**DARK-GREEN LEAVES AND YELLOW-COLOURED FRUITS AND VEGETABLES HELP A CHILD TO HAVE HEALTHY EYES AND FEWER INFECTIONS**

## Fortified complementary foods

In some areas, there are fortified complementary foods available. For example, flour or a fortified baby cereal with added iron and zinc. These are usually convenient and nutritious and families can be made aware of them.

Fortified processed complementary foods may be sold in packets, cans or 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.

### FORTIFIED PROCESSED COMPLEMENTARY FOODS

When discussing fortified processed 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 a flour. It may have some vegetables, fruit 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/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 breast-milk 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*[1] and subsequent resolutions, and it should be reported to the company concerned and the appropriate government authority.

1 International code of marketing of breast-milk substitutes. Geneva: World Health Organization; 1981 (http://www.who.int/nutrition/publications/code_english.pdf).

# The use of micronutrient powders (MNPs)

## Why use MNPs?

- A diet of foods with too few micronutrients will harm the health and development of young children from 6 up to 24 months of age.
- MNPs are vitamin and mineral powders that can be added directly to soft or mushy semi-solid or solid cooked foods prepared in the home, to improve the nutritional quality of foods for young children.
- The single-serving sachets allow families to fortify a young child's food at an appropriate and safe level.

## How to Add MNPs to complementary foods

1. Wash the hands with soap and water.
2. Prepare cooked food – thick porridge, mashed potato, or any soft or mushy semi-solid or solid food.
3. Make sure that the food is at a temperature ready for eating.
4. Do NOT add the MNPs to hot food: if the food is hot, the iron will change the colour and taste of the food.
5. Do NOT add the MNPs to any liquids (water, tea or watery porridge): in cold liquids, MNPs lump and don't mix well but float on top; the iron will dissolve instantly and change the colour and taste of the food.
6. Separate a small portion of the soft or mushy semi-solid or solid cooked food within the child's bowl.
7. Pour the entire contents of one sachet of MNPs into the small portion of food:
    - Shake the unopened sachet to ensure that the powder is not clumped.
    - Tear open the sachet and pour the entire contents into the small amount of food.
    - Mix the sachet contents and the small portion of food well.
8. Feed the child this small portion of food mixed with MNPs, so that they will eat all of the micronutrients in the first few spoonfuls, before giving the rest of the meal.
9. The food should be consumed within 30 minutes of mixing with the MNPs.
10. You can add the entire packet of MNPs to any meal. However, only one sachet of MNPs should be given during a day.

## Possible side-effects of MNPs

- Any side-effects are minimal and usually harmless/of short duration.
    - Colour of stool: dark stool indicates that iron is being absorbed into the child's body.
    - Consistency of stool: the child may have softer stools or a mild form of constipation during the first 4–5 days.
- Use of MNPs complements vitamin A supplementation, but does not replace it. Both are needed.
- Accidental overdosing is highly unlikely. In order to reach toxicity levels, as many as 20 sachets would have to be consumed

## Who should NOT be given MNPs?

- Children receiving ready-to-use therapeutic food (RUTF) for management of severe acute malnutrition should not be given MNPs.
- Stop giving MNPs during treatment for malnutrition (milk-fortified corn–soy blend [CSB++] and ready-to-use supplementary food [RUSF]), as children are already getting extra iron and the vitamins they need.
- Also stop giving MNPs to a child with a fever and who is being treated for an infectious disease.

**Note:** In malaria-endemic areas, MNPs (and other measures that provide iron such as syrup and drops) can be given; however, other measures to prevent, diagnose and treat malaria should also be implemented.

# The fluid needs of the young child

A baby who is exclusively breastfeeding receives all the liquid they need in the breast milk. When other foods are added to the diet, the baby may need extra fluids. Likewise, a baby who is under 6 months of age and only receiving replacement milks does not need extra water.

Offer fluids when the child seems thirsty. Extra fluid is needed if the child has a fever or diarrhoea.

## Fluid needs of the young child

- 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 their 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. 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 breast milk need special attention and special recommendations. A non-breastfed child aged 6 up to 24 months needs approximately 2–3 cups of water per day in a temperate climate, and 4–6 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 45.A 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 the Key messages you could give for the foods that you have chosen?

# Notes

# Notes (contd)

# Session 46

## Variety, frequency and quantity of feeding

### 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

### Introduction

We have discussed what types of food help to fill the gaps in children over 6 months of age. However, just offering suggestions for the types of food is not enough information for the caregivers. They need to know what amount of food to give and how often to give it.

### The importance of using a mixture or variety of foods

Most adults and older children eat a mixture of foods at mealtimes. 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.

The gaps for iron and for energy may be the hardest to fill.

Animal-source foods are special foods for children. These foods should be eaten every day or as often as possible. If foods fortified with iron are available, these could be used to help fill the iron gap.

If an iron-rich food is not available, you, as the health worker, may need to recommend using a micronutrient supplement to ensure the child gets sufficient iron and other micronutrients.

To give more energy foods, families can give some extra foods between meals that are easy to prepare. These extra foods are in addition to the meals – they should not replace them. These extra foods are often called snacks. However, they should not be confused with foods such as sweets, crisps or other processed foods, which may include the term “snack foods” in their name.

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

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.

# The frequency of feeding complementary foods

## KEY MESSAGE 7

**A GROWING CHILD NEEDS 2–4 MEALS A DAY, PLUS 1–2 SNACKS IF HUNGRY: GIVE A VARIETY OF FOODS**

# Recommendations for feeding the non-breastfed child

46/8

### Recommendations for feeding the non-breastfed child aged 6–24 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)

# Amount of complementary food to offer

When a child starts to eat complementary foods, they need 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 2–3 small spoonfuls of the food twice a day.

## AMOUNTS OF FOOD TO OFFER

| Age | Texture | Frequency | Amount of food an average child will usually eat at each meal[1] |
|---|---|---|---|
| 6–8 months | Start with thick porridge, well-mashed foods<br>Continue with mashed family foods | 2–3 meals per day plus frequent breastfeeds<br>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<br>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<br>Depending on the child's appetite, 1–2 snacks may be offered | ¾ to one 250 mL cup/bowl |
| If the baby is not breastfed, give in addition: 1–2 cups of milk per day, and 1–2 extra meals per day. | | | |

As the child gets older, the amount of food offered increases. Give as much as the child will eat with active encouragement.

[1] Adapt the chart to use a suitable local cup/bowl to show the amount. The amounts assume an energy density of 0.8–1.0 kcal/g.

The amounts of food included in the table are recommended when the energy density of the meals is about 0.8–1.0 kcal/g.

If the energy density of the meals is about 0.6 kcal/g, recommend that the mother increases the energy density of the meal (adding special foods) or increases the amount of food per meal. For example:

- for 6–8 months; increase gradually to ⅔ of a cup
- for 9–11 months give ¾ of a cup
- for 12–23 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 caregiver to feed the child using the principles of responsive feeding, recognizing the signs of hunger and satiety; these signs should guide the amount of food given at each meal and the need for snacks

## KEY MESSAGE 8

### A GROWING CHILD NEEDS INCREASING AMOUNTS OF FOOD

## EXERCISE 46.A AMOUNTS TO GIVE

| Age of child | Frequency | Amount at each meal |
|---|---|---|
| 6 months 2 days | Two times per day | 2 to 3 tablespoonfuls |
| 22 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 8 months | Two to three times per day (may offer 1–2 snacks) | up to ½ cup |
| 12 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 7 months | Two to three times per day (may offer 1–2 snacks) | up to ½ cup |
| 15 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 9 months | Three to four meals ( may offer 1–2 snacks) | ½ cup |
| 13 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 19 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 11 months | Three to four meals ( may offer 1–2 snacks) | ½ cup |
| 21 months | Three to four meals ( may offer 1–2 snacks) | ¾ to 1 cup |
| 3 months | A trick question! | Only breastfeeding |

# Notes

# Session 47

## Gathering information on complementary feeding practices

### 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 Job aid: Food intake – 6 up to 24 months

### Introduction

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

In Session 15, you looked at the Job aid: Feeding history – 0 up to 6 months. You learnt how to take a feeding history.

Now we are going to look at assessing the intake of complementary feeds in more detail.

You also 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.

### The Job aid: Food intake – 6 up to 24 months

A useful way to find out what a child eats is to ask the caregiver 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 Job aid: Food intake – 6 up to 24 months helps you to do this.

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

## Instructions for completing the Job aid: Food intake – 6 up to 24 months

1. Greet the mother/caregiver. 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/caregiver 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 caregiver mentions a preparation, such as a porridge or stew, ask them 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 caregiver, to help them remember all the food/drinks/breastfeeds that the child had.
9. Continue to remind the caregiver you are interested in what the child ate and drank yesterday (caregivers 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 Job aid: Food intake – 6 up to 24 months the practices that are present. If appropriate, show the caregiver the pictures of thin and thick consistency (for porridge and mixed foods). Ask them which drawing is most like the food they gave the child. Was it thick, did it stay on the spoon and hold a shape on the plate, or was it thin and did it flow off the spoon and not hold its shape on the plate?
12. Praise practices you wish to encourage. Offer two or three Key messages as needed and discuss how the caregiver 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 Job aid: Food intake – 6 up to 24 months when they are eating again.

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

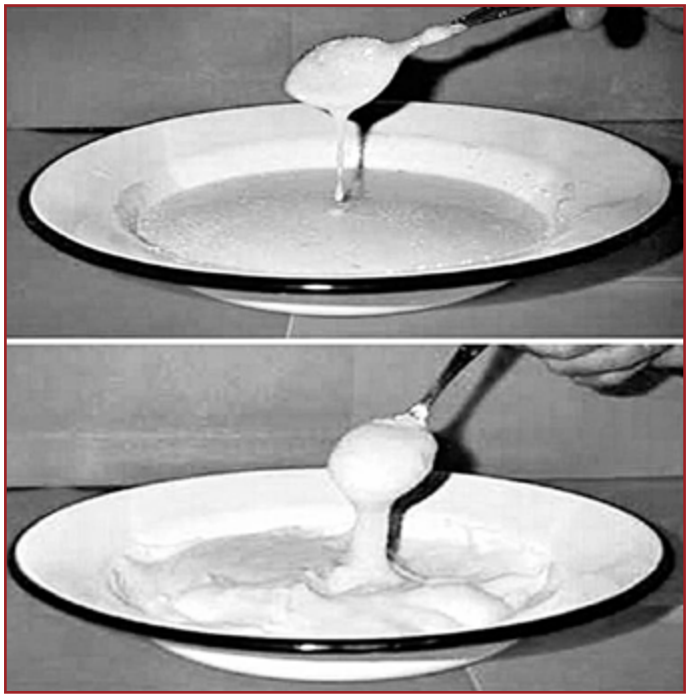
**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

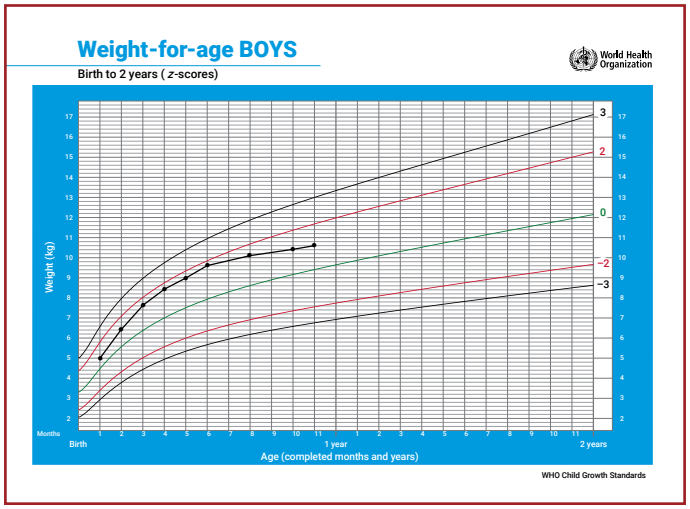
## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

# Food consistency pictures



## Demonstration 47.A Learning what a child eats



# Completed Job aid: Food intake – 6 up to 24 months for Demonstration 47.A

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see Reference tool: Food intake – 6 up to 24 months for the message)

## Job aid: Food intake – 6 up to 24 months

**Child's name:**

**Date of birth:** **Age of child at visit:** 11 months

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | Growth curve raising slowly | |
| Child received breast milk? | ✓ | |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 2 | Yes |
| 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 their age? | ✓ | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | ✓ | |
| Caregiver assisted the child at mealtimes? | ✓ | |
| Child took any vitamin or mineral supplements? | — | |
| Child ill or recovering from an illness? | — | |

# Practising gathering information on complementary feeding practices

You will use role-play to practise gathering information to assess complementary feeding practices.

You will work in small groups, taking 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.

**When you are the "mother":**

- 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 they are interested, you can tell them 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 JOB AID: FOOD INTAKE – 6 UP TO 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.
- Use the Counselling card you consider appropriate for the case.

**When you are observing:**

Follow the pair practice with the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS and observe whether the "health worker" gathers useful information.

- Notice which counselling skills the health worker uses and which they do not use.
- After the role-play, be prepared to praise what the health worker does right, and suggest what they could do better.

# Notes

# Notes (contd)

# Session 48

## Responsive feeding

### 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 a young child to eat
- list the Key message from this session

### Introduction

Health workers like you frequently give information to caregivers about feeding their young child. In this session, we will look at the recommendations and suggestions that you give and that you wrote down in Session 43.

### Feeding care practices and their effect on intake

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

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

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

**RESPONSIVE FEEDING PRACTICES**

**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**

### Assist children to eat, being sensitive to their cues or signals

At about 6 months, a young child is developmentally ready for complementary foods. Signs that a child is developmentally ready for complementary foods are:

- staying in a sitting position and holding their head steady
- coordinating their eyes, hands and mouth, so that they can look at the food, pick it up and put it in their mouth by themselves
- swallowing food – babies who are not ready will push their food back out, so they get more round their face than they do in their mouths.

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 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 mealtimes.

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 that when the child stops eating they have had enough to eat.
- The third style is feeding **in response to the child's cues** or signals, using encouragement and praise.

## Feed slowly and patiently, encourage but do not force

### 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 themself
- Minimize distractions if the child loses interest easily
- Stay with the child through the meal and be attentive

## Talk to children during feeding, with eye-to-eye contact

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, they may not eat well. Regular mealtimes and a focus on eating without distractions may also help a child learn to eat.

### Key message 9

**A young child needs to learn to eat: encourage and give help… with lots of patience**

# Notes

# Notes (contd)

# Notes (contd)

# Session 49

## Hygienic preparation of feeds

### Objectives

After completing this session, participants will be able to:

- explain ways of assisting clean and safe feeding of young children
- demonstrate how to prepare a cup hygienically for feeding a baby

### Introduction

In this session, we will look at clean and safe feeding of young children.

### Requirements for clean and safe feeding

A baby who is not breastfed is at increased risk of illness for two reasons:

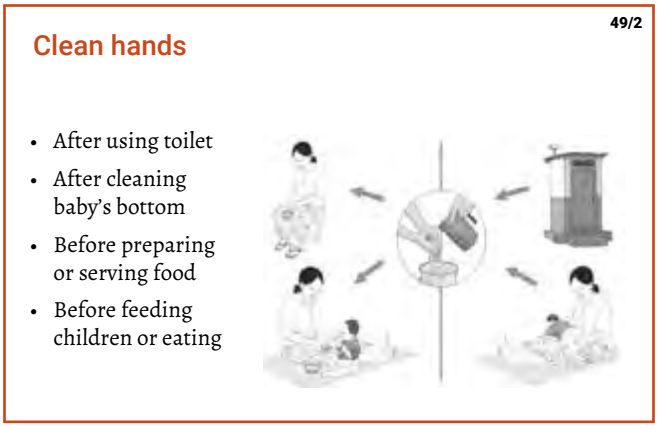
- Replacement feeds may be contaminated with organisms that can cause infection.
- The baby lacks the protection provided by the breast milk.

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




Always wash your 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 that may be contaminated, for example, raw meat and poultry products
- after touching animals or animal faeces
- before preparing or serving food
- before eating, and before feeding children.

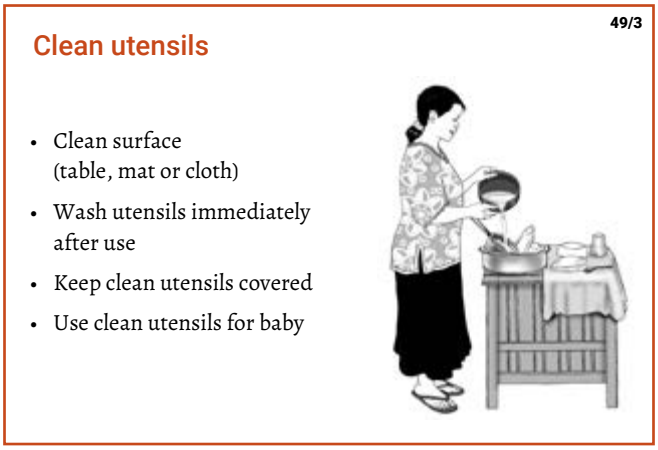
However, it is not necessary to wash hands before every breastfeed if there is no other reason to wash them.

It is important to wash your hands thoroughly:

- with soap or ash
- 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




You need to keep both the utensils that you use, and the surface on which you prepare feeds, 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 their mouth to check the taste or temperature, they should use a different spoon from the baby.

# Safe water and food


Water can be made safe for feeding babies by bringing the water to a rolling boil before use. This will kill most harmful microorganisms. A rolling boil is when the surface of the water is moving vigorously. It only has to "roll" for a second or two.

The water should then be stored in a clean, covered container. The best kind of container has a narrow top, and a tap through which the water comes out. This prevents people from dipping their hands and cups into it.

If the water has been stored for more than 48 hours, it is better to use it for something else, for example cooking, or to give it to older children to drink.

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, ultra-high temperature (UHT) or sterilization. These treatments kill the harmful microorganisms, and 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 giving it to a baby.

Some families keep water cool in a pottery jar, which allows evaporation of water from the surface. This method is not safe for milk.

If a caregiver is giving complementary foods, they should prepare them freshly each time they feed the baby, especially if they are semi-liquid.

# Safe storage

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## Safe storage

- Keep foods in tightly covered containers
- Store foods dry if possible (e.g. milk powder, sugar)
- Use milk within one day if refrigerated
- Use prepared feeds within one hour

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 thick peel, like bananas.

Fresh milk can be kept 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, milk must be boiled and then used within an hour of boiling.

If a caregiver does not have a refrigerator, they 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.

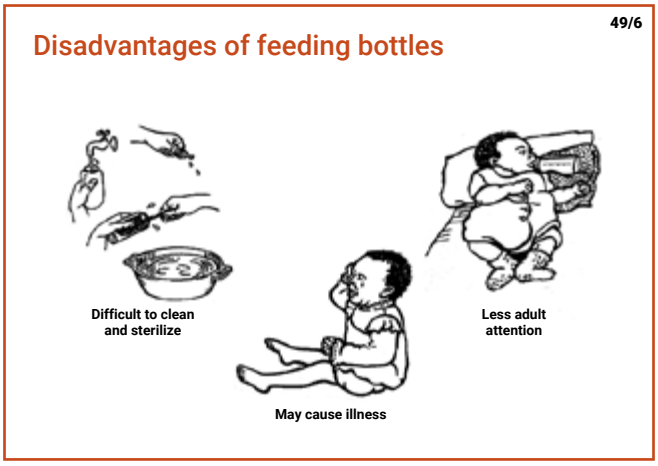
If a baby does not finish the feed, the caregiver should give it to an older child or use it in cooking.

Some families keep water hot in a thermos flask. This is safe for water. But it is not safe to keep warm milk or formula in a thermos flask.

Bacteria grow when milk is kept warm.

Discuss with the mother or other caregiver 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.

# Disadvantages of feeding bottles




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 themself, 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 the baby close and making eye contact.

Mothers need to know how to clean cups and bottles.

## Cleaning a cup

A cup does not need to be boiled. 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.

## Cleaning feeding bottles and teats

Bottles and teats are more difficult to clean than cups and you should discourage their use. However, you need to know how to clean them in case a caregiver insists on using them.

A bottle and teat need to be rinsed immediately after use with cold water, and then scrubbed inside with a bottle brush and hot soapy water.

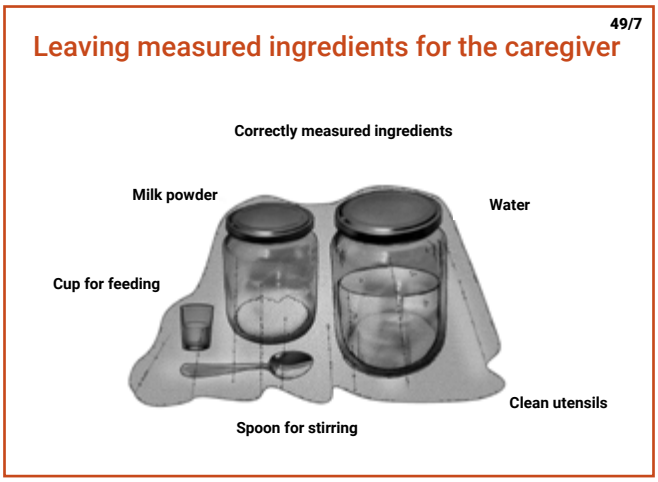
At least once a day they need to be sterilized. Ways of sterilizing washed bottles include:

- Boiling – the bottle needs to be completely covered in water. The water needs to be boiling, with the surface actively rolling, for at least 10 minutes.
- Soaking in a diluted bleach solution for at least 30 minutes.

Remember that bleach is not good for a baby. If this method of sterilization is used, the bottle needs to be rinsed with previously boiled water before adding the milk, to ensure no bleach remains.

Teats need to be turned inside out and scrubbed using salt or abrasive. They should then be boiled or soaked as above to sterilize.

# Leaving measured ingredients for the caregiver




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 or 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 measure the milk powder. 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 they give the feed, and to feed it from a cup.

# 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 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 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 reheating.

## 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 pasteurized milk.
- Wash fruits and vegetables in safe water, especially if eaten raw.
- Do not use food beyond its expiry date.

Adapted from WHO Food Safety Programme. Five keys to safer food. Geneva: World Health Organization; 2001 (WHO/SDE/PHE/FOS/01.1; http://apps.who.int/iris/bitstream/10665/66735/1/WHO_SDE_PHE_FOS_01.1.pdf).

# Notes

# Notes (contd)

# Session 50

## Feeding during illness and recovery

### Objectives

After completing this session, participants will able to:

- explain why children need to continue to eat during illness
- describe appropriate feeding during illness and recovery
- counsel families about young child feeding during and after illness
- list the Key message from this session

### Introduction

- 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. This session will help you to counsel the caregivers of a child who is ill.

### Why children need to continue to eat during illness

- 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.
- Some families may feed the young child in a different way during illness.
- They may:
  - think food will harm a sick child and so give less food, or none at all
  - give only thin, watery foods with little nutritional value
  - give special foods believed to help the child recover from the illness
  - offer more high-quality foods
  - encourage the child to eat more.
- A child may eat less during illness because:
  - the child does not feel hungry and is weak and lethargic
  - the child is vomiting, or their 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/breastfeeding.

The goal in feeding a child during and after illness is to have them return to the growth they had before illness.

## KEY MESSAGE 10

**ENCOURAGE THE CHILD TO DRINK AND EAT DURING ILLNESS, AND PROVIDE EXTRA FOOD AFTER ILLNESS TO HELP THEM RECOVER QUICKLY**

## Appropriate feeding during illness

Sick children often need extra drinks and food during illness – for example if they have fever or diarrhoea. A sick child may prefer breastfeeding to eating other foods. Do not withhold food from a sick child.

### EXERCISE 50.A SUGGESTIONS FOR FEEDING DURING ILLNESS

| Illness/condition | Information/suggestion |
|---|---|
| Child's mouth or throat is sore | |
| Child has a blocked nose | |
| Child has fever | |
| Child has chest infection or cough | |
| Child has diarrhoea | |
| Child is vomiting | |
| Child is sleepy | |

### 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

## Signs that the child needs referral

Signs to watch for and for the need to seek early treatment include:

- the child is sick, not feeding and refusing drinks
- repeated vomiting
- very frequent loose watery stools
- marked thirst, dry lips, no tears, dehydration
- blood in the stools
- fast or difficult breathing
- the child is very sleepy, difficult to wake
- the chiuld is not getting better from any illness or home care
- weight loss that is not corrected by attention to feeding practices.

If it is not part of your job to treat an ill child, you need to know where to refer a child for treatment.

## Appropriate feeding during recovery

A child's appetite may be poor during illness. Even with encouragement to eat, the child may not eat well. The child's appetite usually increases after the illness, so it important to continue to give extra attention to feeding after the illness. This is a good time for families to give extra food, so that lost weight is quickly regained. This allows "catch-up" growth.

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



### Feeding during recovery

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

Talk with the family about ways that these extra needs can fit in best with their household. They may:

- feed more frequently, give an **extra meal** or nutritious food between meals
- give an **extra amount** at each meal if the child's appetite is good
- use foods that are **extra rich** in energy and nutrients, such as animal products, fruits and margarine or oil
- encourage the child to eat, using **extra patience and love**
- continue to breastfeed and give **extra breastfeeds** if the child is not eating.

# Counselling about feeding during and after illness

When you are talking with the family of a sick child, first find out what they do already. Many families know a lot about feeding sick children. They know what foods their child likes and how to encourage their child to eat.

You can use your LISTENING AND LEARNING SKILLS to find out what the child is eating and drinking during the illness. The REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS can help you to gather information on feeding practices during illness. Use this reference tool as described in Session 47, before giving more attention to the feeding during illness and recovery.

The main information you need is about:

- breastfeeding
- whether the child has taken any other foods or fluids
- different types of foods.

Then ask:

- *Were the foods you gave the child thinner or thicker than usual?*
- about feeding techniques
- *During this illness, has the child's feeding changed? If yes, how?*
- *Can you tell me whether your child's feeding has changed during this illness?*

Praise and encourage helpful practices the family are using.

Limit the information you give to what is relevant at this time. Families may be overtired and stressed if their child is ill. It may be difficult for them to take in large amounts of information.

Discuss what foods the child can eat and drink. If the child can only eat small amounts, suggest foods that can be prepared easily and are both nutrient rich and easy for the child to eat.

A child who is ill or malnourished may not respond to their caregiver and the caregiver may find it difficult to continue giving care without response. Show that you understand that it can be difficult to feed an ill child. Praise the caregiver for continuing to try the various feeding techniques.

After the child is past an acute stage of the illness, you can talk in more detail with the caregiver about how the child eats.

## REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

# Notes

# Session 51

## Checking understanding and arranging follow-up 1

### Objectives

After completing this session, participants will be able to:

- demonstrate how to ensure that a caregiver understands information provided, by using checking questions
- arrange referral or follow-up of a child

### Introduction

In this session, you will learn two further skills to help support caregivers: checking understanding and arranging follow-up.

### Checking understanding

Often you need to check a caregiver understands a practice or action they plan to carry out. Ask open questions to find out whether 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 whether the caregiver really understands.

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

### Arranging follow-up or referral

All children should receive regular 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 them for more specialized care.

Follow-up is especially important if there has been any difficulty with feeding. Ask the caregiver 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; and checking the child's weight, length, health, general development and care.

The follow-up visits also give an opportunity to praise and reinforce practices, thus building the caregiver'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 follow up how the mother is coping with her own health and difficulties.

# Notes

# Session 52

## Food demonstration

### Objectives

After completing this session, participants will be able to:

- prepare a plate of food suitable for an infant or young child
- explain why they have chosen these foods
- conduct a food demonstration with a caregiver

### Introduction

This session helps you to teach a mother or caregiver to prepare age-appropriate food for their child.

To teach a mother a new skill or behaviour, you could:

- **tell** the mother how to do it – this is good
- ask the mother to **watch** while you talk and prepare the food – this is better
- help the mother to actually **prepare the food herself** – this is the BEST method.

**AMOUNTS OF FOOD TO OFFER**

| Age | Texture | Frequency | Amount of food an average child will usually eat at each meal[1] |
|---|---|---|---|
| 6–8 months | Start with thick porridge, well-mashed foods<br>Continue with mashed family foods | 2–3 meals per day plus frequent breastfeeds<br>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<br>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<br>Depending on the child's appetite, 1–2 snacks may be offered | ¾ to one 250 mL cup/bowl |
| If the baby is not breastfed, give in addition: 1–2 cups of milk per day, and 1–2 extra meals per day. | | | |

1 Adapt the chart to use a suitable local cup/bowl to show the amount. The amounts assume an energy density of 0.8–1.0 kcal/g.

## Exercise 52.A Preparing a young child's meal

**Group:**

| Task | Achieved | Comments |
|---|---|---|
| Mixture of foods: | | |
| Staple | | |
| Animal-source food | | |
| Bean/pulse **plus** 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.

Watching a demonstration is useful. However, it is easier to remember a new skill if a mother actually prepares the food herself.

How you assist a mother to learn is important. Your counselling can also be used when helping a mother to learn a new skill.

You can use your skills to:

- use open questions to find out whether the mother understands
- avoid words that sound judging or critical
- praise the mother
- explain things in a simple and suitable way, to help her understand.

Whenever possible, let the mother prepare the food herself, with your support, until she is confident and competent. Watching a health worker prepare foods is not enough, particularly if there is a difficulty with the child's weight gain or feeding. Supportive teaching can help to build her confidence, as well as making it easier for her to learn.

# 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 the 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 and which Counselling cards to use (if necessary)

Select 1–3 Key messages to give to mothers (see Key messages for complementary feeding, 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. Key message 3: Foods that are thick enough to stay on 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. Key message 4: 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. Key message 9: 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 to participating 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:
  - Wash hands
  - Mashing a potato or _____
  - Adding the correct quantity of fish or egg, etc.
  - Adding the correct quantity of milk or water
- Point out the consistency of the preparation as the mothers are making it, and demonstrate with a spoon when they are finished.
- Reinforce the use of local inexpensive and nutritious ingredients, especially using foods from the family pot.
- Ask the mothers whether they would have difficulty in obtaining any of the ingredients (suggest alternatives). Ask the mothers whether 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 the 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[1,2] – fill in the food and the amount needed

### Recipe 1

Family food for a 10-month-old child's main course (about ½ 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.



1 The amounts indicated are recommended if the energy content of the meals is 0.8 to 1.0 kcal/g. These amounts should be adjusted if the foods are diluted.
2 If there is a need to increase the amounts of food for each meal, instruct the participants to make the change in their recipes.

## Counselling skills

### Listening and learning skills

1. Use helpful non-verbal communication
2. Ask open questions
3. Use responses and gestures that show interest
4. Reflect back what the mother/caregiver says
5. Empathize – show that you understand how the mother/caregiver feels
6. Avoid using words that sound judging

### Skills for building confidence and giving support

1. Accept what a mother/caregiver thinks and feels
2. Recognize and praise what a mother/caregiver and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

# Notes

# Notes (contd)

# Notes (contd)

# Session 53

## Clinical practice session 5: Gathering information on complementary feeding practices 1

### Objectives

After completing this session, participants will be able to:

- demonstrate how to gather information about complementary feeding using counselling skills and the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS
- build a picture of local feeding practices

### Preparation

You are going to practise using JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS and all the clinical and counselling skills that you have learnt.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups of 3–4 and each group will have one trainer. One participant talks with the mother or caregiver, filling in the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS at the same time. Talk with caregivers of children aged 6 up to 24 months. The others in the group observe and fill in the COUNSELLING SKILLS CHECKLIST.

If you meet a child who is ill or has a major feeding difficulty, encourage the caregiver to bring the child to the local health centre. Do not offer suggestions for treatment of an ill child.

### What to take with you:

- One copy of the REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS
- Two copies of the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS
- Two copies of the COUNSELLING SKILLS CHECKLIST
- A set of the FOOD CONSISTENCY PICTURES
- A common bowl used to feed a young child – one between each pair of participants
- One set of Counselling cards, and the *Guidance on the use of counselling cards*
- Pencil and paper to make notes

You do not need to take anything else – no books, manuals or handbags.

### When you talk with a mother or caregiver:

Introduce yourself to the mother or caregiver and ask permission to talk with them. Introduce your group and explain you are interested in learning about feeding young children in general.

Try to find a chair or stool to sit on, so you are at the same level as the caregiver.

Ask to see the growth chart of the child and, if it is available, observe the trend in the child's growth. If the child does not have a growth chart, ask for their weight and length and check them for nutritional status against the reference growth chart.

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

Use the information you have gathered and then try to praise two things that are going well; offer the caregiver two or three pieces of relevant information that are useful at the time, using the Counselling card for the age group of the child you see; then offer two or three suggestions that are useful at this time.

If the caregiver has any questions about feeding their child, encourage them to discuss them with their health worker or health facility.

When you have finished talking with a caregiver, thank them and move away.

## When you are the observer:

Mark a tick on the COUNSELLING SKILLS CHECKLIST for every skill that you observe the "counsellor" practising. Remember to observe what the "counsellor" is doing, rather than thinking about what you would say if you were talking to the caregiver. The observers do not ask the caregiver any questions.

Notice other feeding practices in the area, such as:

- whether children are given any food or drinks while waiting
- whether children are given a bottle or soother/pacifier while waiting
- general interaction between caregivers and children
- any posters or other information on feeding in the area.

## Discuss the clinical practice

### General questions

- How did your practice go? What did you do well? What difficulties did you have?
- Was the caregiver willing to talk? Did they seem to enjoy talking with you?
- Did the caregiver ask any questions? How did you respond?
- What was the most interesting thing that you learnt from the caregiver?
- Was there any special difficulty or situation that helped you to learn?
- How was this clinical practice compared to the first clinical practice?

### Counselling skills

- Both the participant and the observer comment.
- How many of the counselling skills were you able to use (especially praise two things and give two pieces of relevant information)?
- Were some skills difficult to use?
- What was the caregiver's reaction? How did they participate? What was the caregiver's response to your suggestions?
- How did the process of praise, inform, suggest work? Was it hard to remember not to give a command or tell the caregiver what they should do?

## Exercise 53.A Summary of groups' Job aids: Food intake – 6 up to 24 months

### Job aid: Food intake – 6 up to 24 months

**Child's name:**

**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

Enter ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

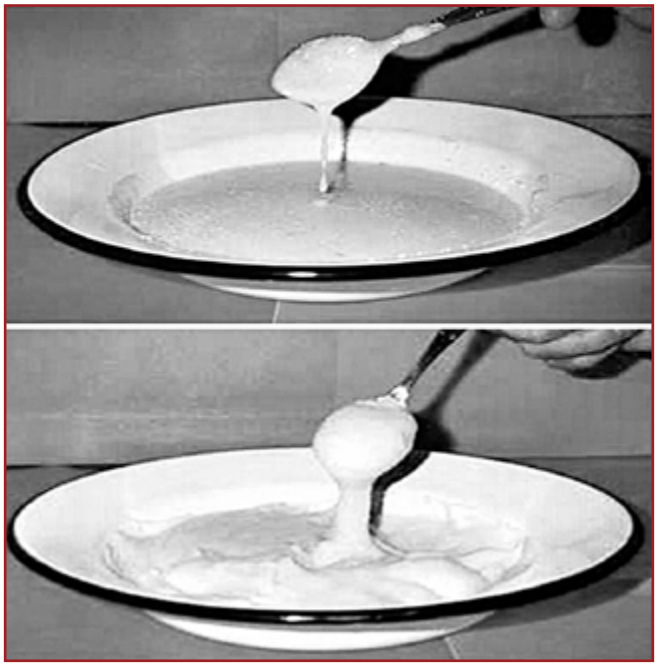
## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

# Food consistency pictures



## COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

#### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

#### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Notes

# Notes (contd)

# Session 54

## Clinical practice session 6: Gathering information on complementary feeding practices 2

### Objectives

After completing this session, participants will be able to:

- demonstrate how to gather information about complementary feeding using counselling skills and the Job aid: Food intake – 6 up to 24 months
- provide information about complementary feeding and continuing breastfeeding to a caregiver of a child aged 6 up to 24 months

### Preparation

You are going to practise using your counselling skills and the Job aid: Food intake – 6 up to 24 months.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session you will work in small groups of 3–4 and each group will have one trainer. One participant talks with the mother or caregiver, filling in the Job aid: Food intake – 6 up to 24 months at the same time. Talk with caregivers of children aged 6 up to 24 months. The others in the group observe and fill in the Counselling skills checklist.

If you meet a child who is ill or has a major feeding difficulty, encourage the caregiver to bring the child to the local health centre. Do not offer suggestions for treatment of an ill child.

### What to take with you:

- One copy of the Reference tool: Food intake – 6 up to 24 months
- Two copies of the Job aid: Food intake – 6 up to 24 months
- Two copies of the Counselling skills checklist
- A set of the Food consistency pictures
- A common bowl used to feed a young child – one between each pair of participants
- One set of Counselling cards, and the *Guidance on the use of counselling cards*
- Pencil and paper to make notes

You do not need to take anything else – no books, manuals or handbags.

### When you talk with a mother or caregiver:

Introduce yourself to the mother or caregiver and ask permission to talk with them. Introduce your group and explain you are interested in learning about feeding young children in general.

Try to find a chair or stool to sit on, so you are at the same level as the caregiver.

Ask to see the growth chart of the child and, if it is available, observe the trend in the child's growth. If the child does not have a growth chart, ask for their weight and length and check them for nutritional status against the reference growth chart.

Practise as many of the counselling skills as possible, as you gather information from the mother using the Job aid: Food intake – 6 up to 24 months. Listen to what the caregiver is saying and try not to ask a question if you have been told the information already.

Use the information you have gathered and then try to praise two things that are going well and offer the caregiver two or three pieces of relevant information that are useful at the time, using the counselling card for the age group of the child you see; then offer two or three suggestions that are useful at this time.

If the caregiver has any questions about feeding their child, encourage them to discuss them with their health worker or health facility.

When you have finished talking with a caregiver, thank them and move away.

## When you are the observer:

Mark a tick on the COUNSELLING SKILLS CHECKLIST for every skill that you observe the "counsellor" practising. Remember to observe what the "counsellor" is doing, rather than thinking about what you would say if you were talking to the caregiver. The observers do not ask the caregiver any questions.

Remember to use your counselling skills when giving feedback to the participant who was doing the counselling.

Notice other feeding practices in the area, such as:

- whether children are eating any food or drinks
- whether children are given a bottle or soother/pacifier while waiting
- general interaction between caregivers and children
- any posters or other information on feeding in the area.

## Discuss the clinical practice

### General questions

- How did your practice go? What did you do well? What difficulties did you have?
- Was the caregiver willing to talk? Did they seem to enjoy talking with you?
- Did the caregiver ask any questions? How did you respond?
- What was the most interesting thing that you learnt from the caregiver?
- Was there any special difficulty or situation that helped you to learn?
- How was this clinical practice compared to the first clinical practice?

### Counselling skills

Both the participant and the observer comment.

How many of the counselling skills were you able to use (especially praise two things and give two pieces of relevant information)?

Were some skills difficult to use?

What was the caregiver's reaction? How did they participate? What was the caregiver's response to your suggestions?

How did the process of praise, inform, suggest work? Was it hard to remember not to give a command or tell the caregiver what they should do?

## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

Enter ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

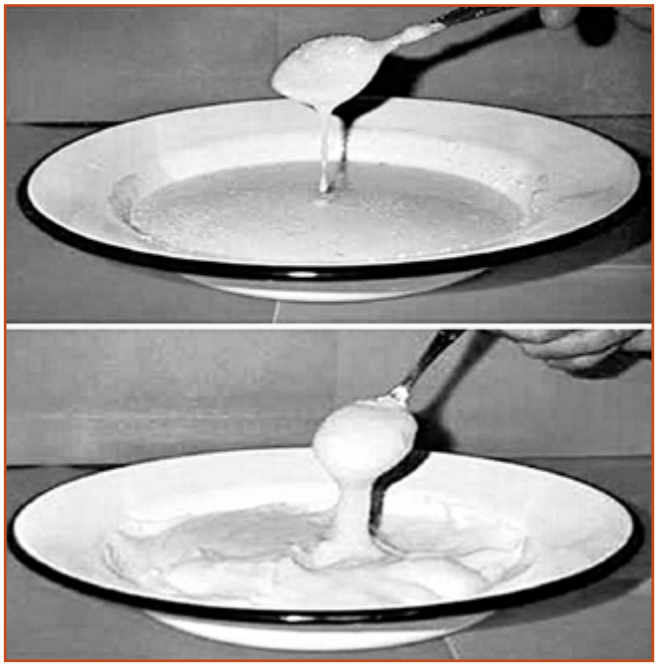
## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

# Food consistency pictures



# COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

## Did the counsellor:

### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Notes

# Notes (contd)

# Session 55

## Feeding during illness and feeding low-birth-weight babies

### 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-birth-weight babies
- estimate the volume of milk to offer to a low-birth-weight baby
- list the Key message from this session

### Introduction

Some of the children you see for feeding counselling may be ill or recovering from an illness. We also discuss in this session babies who are low birth weight.

### Why children need to continue to eat during illness

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.

The goal in feeding a child during and after illness is to have them return to the growth they had before illness.

#### KEY MESSAGE 10

**ENCOURAGE THE CHILD TO DRINK AND EAT DURING ILLNESS, AND PROVIDE EXTRA FOOD AFTER ILLNESS TO HELP THEM RECOVER QUICKLY**

### Feeding during illness

Sick children often need extra drinks and food during illness – for example if they have fever or diarrhoea. A sick child may prefer breastfeeding to eating other foods. Do not withhold food from a sick child.

#### 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

## Feeding during recovery

A child's appetite may be poor during illness. Even with encouragement to eat, the child may not eat well. The child's appetite usually increases after the illness, so it is important to continue to give extra attention to feeding after the illness. This is a good time for families to give extra food so that lost weight is quickly regained. This allows "catch-up" growth.

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

### FEEDING DURING RECOVERY

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

## Low-birth-weight babies

The term **low birth weight baby** includes any baby with a birth weight of less than 2500 g (up to and including 2499 g), regardless of gestational age. Low-birth-weight babies may be **preterm**, that is, born before 37 weeks of gestational age, or they may be born at term but **small for gestational age**.

In many countries, 15–20% of all babies are low birth weight.

Low-birth-weight babies, whether they are term or preterm, are at particular risk of infection, and they need breast milk more than larger babies. Yet they are given artificial feeds more often than larger babies.

Many low-birth-weight 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 breast milk by tube or cup, and helped to establish full breastfeeding later. Breastfeeding is easier for these babies than bottle feeding.

Mothers of low-birth-weight babies need skilled help to express their milk and to cup-feed. It is important to start expressing on the first day, within 6 hours after delivery if possible. This helps to start the flow of breast milk, in the same way that suckling from soon after delivery helps breast milk to "come in".

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

Babies of about 32 weeks' gestational age or more are able to start suckling on the breast.

Babies between about 30 and 32 weeks' gestational age can take feeds from a small cup, or from a spoon.

Babies below 30 weeks' gestational age usually need to receive their feeds by a tube in hospital.

Let the mother put her baby to her breast as soon as they are well enough. They may only root for the nipple and lick it at first, or may suckle a little. Continue giving expressed breast milk by cup to make sure the baby gets all that they need.

When a low-birth-weight baby starts to suckle effectively, they may pause during feeds quite often and for quite long periods. For example, they may take 4–5 sucks and then pause for up to 4 or 5 minutes.

It is important not to take the baby off the breast too quickly. Leave them on the breast so that they can suckle again when he is ready.

The baby 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-birth-weight baby at the breast are:

- across her body, holding them with the arm on the opposite side to the breast
- the underarm position.

Low-birth-weight babies need to be followed up regularly to make sure that they are getting all the breast milk that they need.

Low-birth-weight babies of mothers who are living with HIV and who have chosen to use replacement feeding are at higher risk of complications and should also be followed up regularly, to make sure they are growing. Encourage mothers to feed the replacement milk to their babies by cup.

## AMOUNT OF MILK TO GIVE TO LOW-BIRTH-WEIGHT BABIES WHO CANNOT BREASTFEED

### What milk to give

- Choice 1: expressed breast milk (if possible from the baby's mother, or from a donor); this may be pasteurized or heat-treated according to local policy
- Choice 2: formula milk made up according to the instructions and World Health Organization (WHO) guidelines

### Amount of milk to give to babies who weigh less than 2.5 kg (low birth weight)

- Start with 60 mL/kg body weight per day
- Increase the total volume by 20 mL/kg per day, until the baby is taking a total of 180 mL/kg per day
- Divide the total into 8–12 feeds, to feed every 2–3 hours
- Continue until the baby weighs 1800 g or more, and is fully breastfeeding

Check the baby's 24-hour intake

The size of individual feeds may vary

# Notes

# Notes (contd)

# MODULE 6

## Growth assessment

# Session 56

## Introducing child growth assessment

### Objectives

After completing this session, participants will be able to:

- start a GROWTH RECORD for a child and select pages to use at a given visit
- determine a child's age on the visit day
- identify the correct charts to use (age and sex) on a given visit, and where these charts are in the GROWTH RECORD

### Introduction

In this session, we will see a series of slides that will help us become familiar with the CHILD GROWTH RECORD and the CHILD AGE CALCULATOR, and how to gather the basic information and take the measurements needed to assess how well a child is growing.

### Child growth assessment

Basic growth assessment involves measuring a child's weight and length or height,[1] and comparing these measurements to growth standards.

The purpose is to determine whether a child is growing "normally" or has a growth problem or trend towards a growth problem that should be addressed.

The steps involve measuring weight, length and height; plotting these measurements on growth charts; and interpreting growth indicators.

Correct measurement, plotting and interpretation are essential for identification of growth problems.

If a child has a growth problem, or a trend towards one, the health-care provider should talk with the mother or other caregiver,[2] to determine the causes.

It is then critically important to take action to address the causes of poor growth. Growth assessments that are not supported by appropriate response programmes are not effective in improving child health.

In circumstances such as extreme poverty or emergencies, growth assessment aims to identify children who need urgent intervention, such as therapeutic or supplementary feeding, to prevent death.

In health-facility settings, children with severe forms of undernutrition should be referred for specialized care.

Children with obesity should be referred for medical assessment and specialized management if these services are available. Non-severe problems can be managed through counselling, including age-appropriate advice on feeding and physical activity.



[1] There are other growth measures (e.g. head circumference), but these are not covered in this course. The length of children aged less than 2 years is measured lying down, while standing height is measured for children aged 2 years or older. Throughout the training programme, the term length/height is used to indicate that the age-appropriate measurement for linear growth should be used.

[2] In this course, the word "mother" is often used to refer to the child's primary caregiver. It is understood that the primary caregiver may be another person, such as the father, grandmother or another relative or guardian.

# Using the GROWTH RECORD



A CHILD GROWTH RECORD is a booklet that contains all of the charts needed to record and assess the growth of a child from birth up to 5 years of age.

It also contains recommendations on child feeding and care, and is a useful reference for parents, other caregivers and health-care providers.

A different GROWTH RECORD is needed for boys and girls because boys and girls have different weights and lengths from birth.

# Starting a new GROWTH RECORD

A GROWTH RECORD should be started for each child and kept by the mother.

The box below summarizes the contents of the GROWTH RECORD, with page references to help you navigate through the booklet.

56/5

### GROWTH RECORD contents



The pages titled VISIT NOTES (pages 6–11) should be used for recording visit dates, age, reasons for clinic visits, measurements, information that will help explain any problems that may be observed during the assessment, and observations on the physical status of the child, for example if a child looks:

- wasted[1] (too thin)
- lean (fleshed out, no noticeable fat)
- normal (rounded contours, no noticeable excess fat)
- heavy (sturdy, mostly muscular, not lean or thin)
- overweight[1] (noticeable fat)
- obese[1] (excess fat).

The reference sections of the GROWTH RECORD (SPECIAL CARE, FEEDING RECOMMENDATIONS, FOOD SAFETY AND HYGIENE, and CARE FOR DEVELOPMENT) are handy references for parents and health-care providers.

We will not use the **BMI (body mass index)** charts in this course, although they are included in the GROWTH RECORD. In the 0–6 months charts (pages 29–31), the first 3 months are plotted in weeks (and 13 weeks make 3 months exactly).

Before starting a new GROWTH RECORD, verify the child's sex and select the correct GROWTH RECORD for a boy or girl. Ideally, the GROWTH RECORD is started for each child at birth, in order to enter correct information on date of birth, gestational age, birth weight, length and head circumference. Correct birth information is necessary for correct growth assessment later, as it affects age calculation and the interpretation of growth trends. The date of birth of the next younger sibling is entered later, if and when the mother gives birth to the next child. Similarly, information on feeding and any adverse events will be entered later, as and when the relevant events happen.



[1] You will learn more technical definitions for these terms later in the course.

# Recording the reason for visit and child's age on the visit day

It is important to know the precise age of the child, in order to assess certain growth indicators. Where the exact date of birth is unknown, a local events calendar could be used to establish the child's likely date of birth.

Determine the age of the child on the visit day by using a computerized system (if available) or a "child age calculator" The WHO Child age calculator is a rotating disk mounted on a calendar that is turned to calculate a child's age in completed weeks or months in the first year of life. If the child is more than 1 year old, you will need to mentally calculate the child's completed years and then use the disk to determine the number of additional months completed beyond the completed years.

Locate the date of the visit on the stationary calendar and count on the rotating disk how many months (or weeks if less than 3 months old) the child has completed since birth or the last birthday. Instructions are given on the back of the calculator and in the box that follows.

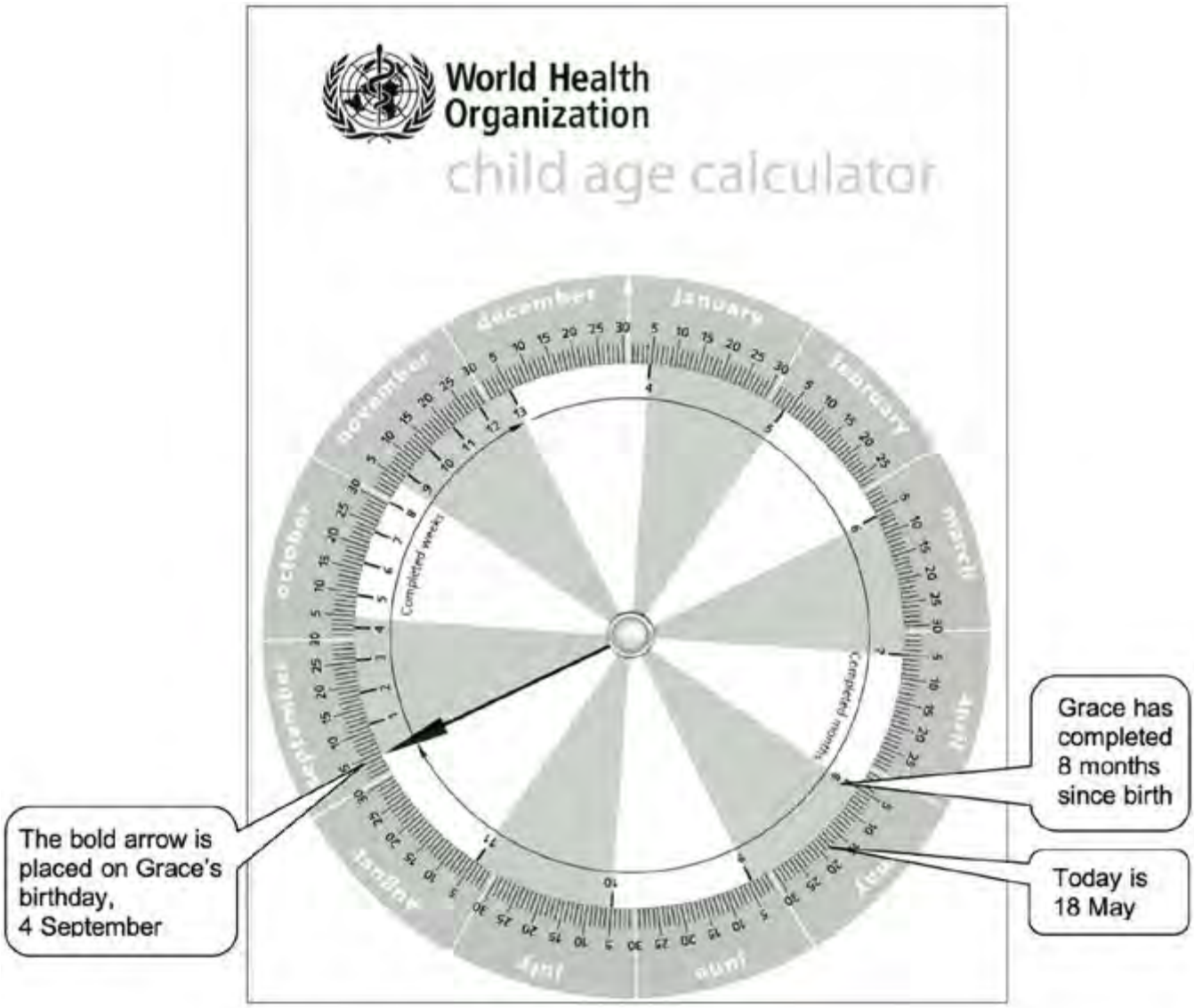
## Instructions for use of the Child age calculator

1. Determine the child's date of birth. This date should already be recorded in the Growth record on page 1 (Personal data).
2. Determine and note down the number of full years the child has completed, e.g. ask the mother how many birthdays have been celebrated if this is a local custom. (Note: simply subtracting the year of birth from the current year will be accurate only if the child has already had a birthday this year.)
   - If the child is one or more years old, you will turn the disk to calculate the number of additional months completed.
   - If the child is less than 1 year old, you will use the disk to count the number of weeks (in the first 3 months) or months (from 3 to 11 months) completed since birth.
3. Turn the disk until the bold arrow points to the child's birthday (month and day) on the stationary circular calendar.
4. Locate today's date on the stationary calendar and count on the rotating disk how many months (or weeks if less than 3 months old) the child has completed since birth or the last birthday.
5. Record the child's age today in the Visit notes of the Growth record. Use abbreviations agreed upon for year, month and week.
   - If the child is more than 1 year old, record completed years and months, for example, "1 yr 6 mo", "2 yr 3 mo". If no months have been completed beyond the child's birthday, record as "1 yr 0 mo", "2 yr 0 mo", etc.
   - If the child is between 3 months and 1 year old, record completed months, for example, "4 mo", "11 mo".
   - If the child is less than 3 months old, record completed weeks, for example, "9 wk".[1] Notice that 13 weeks = 3 months.
   - If the child was born on 29 February, place the bold arrow on 28 February.

[1] If a country uses different growth charts that count months rather than weeks from birth, it will not be necessary to record weeks.

## Example

Grace Madu is seen at a clinic on 18 May 2020. Her mother has brought her for immunization. Grace's date of birth is already recorded on the PERSONAL DATA page of her GIRL'S GROWTH RECORD as 4 September 2019. She has not yet completed 1 year since birth.



## Exercise 56.A Determining a child's age today and selecting growth charts to use in the Growth record

In this exercise, you will determine the age of several children using the WHO Child age calculator. Then you will determine which growth charts in the Growth record should be used during the child's growth assessment.

Answer the questions about each case described below:

1. On 30 June 2020, Mrs Ismail brings her son Salaam to the health centre because he has ear pain. The Personal data page in Salaam's Boy's growth record says that he was born on 12 September 2018.

What is Salaam's age today (30 June 2020), as it should be recorded in the Visit notes (page 6) of the Boy's growth record?

After weighing and measuring Salaam and recording his weight and length in the Visit notes, which three growth charts from the Growth record should the health-care provider use for Salaam's growth assessment?

| Title of growth chart: | Page number: |
|---|---|
| 1. | |
| 2. | |
| 3. | |

2. On 19 April 2020, a girl named Ruby is seen at the health centre for a well-child visit. Ruby's grandmother says that Ruby's Girl's growth record has been lost. She says that Ruby will celebrate her first birthday soon, on the first day of May. The health-care provider begins a new Girl's growth record for Ruby by completing the Personal data page.

What is Ruby's date of birth, as it should be recorded on the Personal data page?

What is Ruby's age today (19 April 2020), as it should be recorded on the Visit notes page?

After weighing and measuring Ruby and recording her weight and length in the VISIT NOTES, which three growth charts should the health-care provider use?

| Title of growth chart: | Page number: |
|---|---|
| 1. | |
| 2. | |
| 3. | |

3. On 20 August 2020, a baby boy named Ivan is brought to the health centre for immunization. The boy's birth record says that he was born on 26 May 2020. The health-care provider begins a BOY'S GROWTH RECORD for Ivan, by completing the PERSONAL DATA page. He then turns to the VISIT NOTES page to record Ivan's age today.

What is Ivan's age today (20 August 2020), as it should be recorded on the VISIT NOTES page?

After weighing and measuring Ivan and recording his weight and length in the VISIT NOTES, which three growth charts should the health-care provider use?

| Title of growth chart: | Page number: |
|---|---|
| 1. | |
| 2. | |
| 3. | |

## Exercise 56.B Continuing case studies – Nalah and Toman

In this exercise, you will begin a Growth record for a girl named Nalah and one for a boy named Toman. You will continue to follow the growth of Nalah and Toman throughout this course. You have been given a Girl's growth record and a Boy's growth record to use in this and other exercises about Nalah and Toman.

Read the information about each child below and follow the instructions give

### Nalah

Nalah Parab was born on 7 February 2020. She was a single, term birth (38 weeks of pregnancy). According to her birth record, her weight was 2.9 kg and length was 49 cm. Her head circumference was not measured.

Nalah's parents are Hamid and Shira Parab. Their address is at 40 Rim Road. Nalah is the first and only child born to her mother. She is breastfed, but she has also been taking some water since she was 3 weeks old. There have been no unusual adverse events in her life so far.

The date of Nalah's visit to the health centre is 25 March 2020. Her mother has brought her for immunization.

#### Instructions:

1. Complete the Personal data page of the Girl's growth record for Nalah. (You may make up a record number.)
2. In the Visit notes section of the Girl's growth record, record Nalah's date of birth. On the first row, enter the date of Nalah's visit, her age today, and the reason for her visit.
3. List below the titles and page numbers of the three growth charts that the health-care provider should use during Nalah's growth assessment.

| Title of growth chart: | Page number: |
|---|---|
| 1. | |
| 2. | |
| 3. | |

### Toman

Toman Baruni comes to the health centre with his mother, Salwa Baruni, on 15 August 2020 for a well-child visit. Mrs Baruni thinks that it must be time for Toman to have another immunization, but she has lost his Growth record, so she is not sure. She says that his last visit to the health centre was at 6 months, and he had received all of his immunizations at that point.

In order to start a new Boy's growth record, the health-care provider asks Mrs Baruni about Toman's birth. Mrs Baruni says that Toman was born on 10 July 2019. He was a single, term birth and weighed 3.5 kg. She does not remember his length or head circumference.

Mrs Baruni was sick at Toman's birth, and Toman was given infant formula milk by the nurses for 3 days in the hospital. After leaving the hospital, Mrs Baruni breastfed Toman, but she stopped after 3 months.

Toman is Mrs Baruni's second child. He lives with her at 100 Centre Street, Apartment 22. Mrs Baruni's first child was born of a different husband and lives with him. Toman has no younger siblings. Mrs Baruni is separated from Shaka Baruni, but Toman spends weekends with his father. Mrs Baruni does not think that the separation has been traumatic for Toman.

**Instructions:**

1. Complete the PERSONAL DATA page of the BOY'S GROWTH RECORD for Toman. (You may make up a record number.)
2. Above the VISIT NOTES section of the BOY'S GROWTH RECORD, record Toman's date of birth for easy reference. On the first row, enter the date of Toman's visit, his age today, and the reason for his visit.
3. List below the titles and page numbers of the three growth charts that the health-care provider should use during Toman's growth assessment.

| Title of growth chart: | Page number: |
|---|---|
| 1. | |
| 2. | |
| 3. | |

When you have finished this exercise, review your answers with a facilitator.

## EXERCISE 56.C CONTINUING CASE STUDIES – NALAH AND TOMAN: HOMEWORK

In EXERCISE 56.B, you began a GIRL'S GROWTH RECORD for Nalah and a BOY'S GROWTH RECORD for Toman. In this exercise, you will enter additional information from a series of visits by each child on the VISIT NOTES page, and determine the age at each visit.

### Nalah

On the VISIT NOTES page of Nalah's GIRL'S GROWTH RECORD, you have already recorded some information from her visit of 25 March 2020, when she was 6 weeks old. Open her GROWTH RECORD to the VISIT NOTES.

1. Nalah's weight at 6 weeks was 3.5 kg and her length was 51.3 cm. Record her weight and length at 6 weeks on the VISIT NOTES page.
2. The following is information from four subsequent visits by Nalah. Enter this information on the VISIT NOTES page. Determine Nalah's age at each visit and enter that as well.

| Date of visit | Weight | Length/height | Reason for visit |
|---|---|---|---|
| 20 April 2020 | 4.2 kg | 54.8 cm | Immunization |
| 22 May 2020 | 4.3 kg | 54.8 cm | Diarrhoea |
| 26 June 2020 | 4.8 kg | 56.2 cm | Immunization |
| 15 August 2020 | 5.4 kg | 58.1 cm | Well-baby visit |

### Toman

On the VISIT NOTES page of TOMAN'S BOY'S GROWTH RECORD, you have already recorded some information from his visit of 15 August 2020, when he was 1 year and 1 month old. Open his GROWTH RECORD to the VISIT NOTES.

1. Toman's weight at 1 year and 1 month old was 11.9 kg and his length was 79.0 cm. Record his weight and length at this age on the VISIT NOTES page.
2. The following is information from three subsequent visits by Toman. Enter this information on the VISIT NOTES page. Determine Toman's age at each visit and enter that as well.

| Date of visit | Weight | Length/height | Reason for visit |
|---|---|---|---|
| 15 December 2020 | 13.5 kg | 84.5 cm | Well-child visit |
| 16 March 2021 | 15.0 kg | 87.0 cm | Ear pain |
| 12 July 2021 | 16.8 kg | 90.9 cm | Well-child visit |
| 15 August 2020 | 5.4 kg | 58.1 cm | Well-baby visit |

When you have finished this exercise, review your answers with a facilitator.

# Notes

# Session 57

## Measuring weight, length and height

### Objectives

After completing this session, participants will be able to:

- use the available weighing and measuring equipment
- weigh a child
- measure a child's length
- measure a child's height

### Introduction

This is a practical session beginning with how to use the measuring equipment and an introduction to taking the actual measurements. The instructions given here are also available in the JOB AID: WEIGHING AND MEASURING A CHILD that is part of this growth assessment module (see pages 435–437).

### Measuring weight

It is recommended to weigh children using a scale with the following features:

- solidly built and durable
- electronic (digital reading)
- measures up to 150 kg
- measures to a precision of 0.1 kg (100 g)
- allows tared weighing.

"**Tared weighing**" means that the scale can be reset to zero ("tared") with the person just weighed still on it. Thus, a mother can stand on the scale, be weighed, and the scale tared. While remaining on the scale, if the mother is given her child to hold, the child's weight alone appears on the scale. Tared weighing has two clear advantages:

- there is no need to subtract weights to determine the child's weight alone (reducing the risk of error)
- the child is likely to remain calm when held in their mother's arms for weighing.

There are many types of scales currently in use. The **UNISCALE** (made by the United Nations Children's Fund [UNICEF]) has the recommended features listed above and is used in this course to demonstrate weighing techniques.

It is powered by a lithium battery that lasts for one million measurement sessions. The scale has a solar on-switch, so it requires adequate lighting to function. Footprints may be marked on the scale to show where a person should stand. How to weigh a child using the UNISCALE or a similar model is described in the following sections.

A **taring scale** is easy to use and reliable. However, there are other types of scales that may be reliable, for example, an electronic baby scale, or a paediatric beam balance that has been calibrated. Children who can stand alone can be weighed standing on a scale. Otherwise, the mother can be weighed alone; then the mother and child can be weighed together and the mother's weight subtracted to determine the child's weight.

Bathroom scales are not recommended, as they tend to be unreliable. Hanging scales are also not reliable when weighing agitated babies.

## Preparing to weigh

Explain to the mother the reasons for weighing the child, for example, to see how the child is growing, how the child is recovering from a previous illness, or how the child is responding to changes that have been made in their feeding or care.

If the child is less than 2 years old or is unable to stand, you will do tared weighing. Explain the tared weighing procedure to the mother as follows. Stress that the mother must stay on the scale until her child has been weighed in her arms.

- The mother will remove her shoes and step on the scale to be weighed alone first. She may need to adjust any long garments that could cover the display and solar panel of the scale.
- After the mother's weight appears on the display, tell her to remain standing on the scale.
- You will reset the reading to zero by covering the solar panel of the scale (thus blocking out the light).
- Then you will give the mother her child to hold. The child's weight will appear on the scale. Record the child's weight.

If the child is 2 years or older, you will weigh the child alone if they will stand still. Explain to the mother that the child will need to step on the scale alone and stand very still.

Undress the child. Explain that the child needs to remove their outer clothing in order to obtain an accurate weight. A wet diaper, or shoes and jeans, can weigh more than 0.5 kg. Babies should be weighed naked and should be wrapped in a blanket to keep them warm until weighing. Older children should remove all but minimal clothing, such as their underclothes.

If it is too cold to undress a child, or if the child resists being undressed and becomes agitated, you may weigh the clothed child, but note in the GROWTH RECORD that the child was clothed. It is important to avoid upsetting the child, so that the length/height measurements can also be taken.

If it is socially unacceptable to undress the child, remove as much of the clothing as possible.

**Note:** If the child has braids or hair ornaments that will interfere with length/height measurements, remove them before weighing, to avoid delay between the measurements. Especially with young children whose length will be measured, it is important to move quickly and confidently from the scale to the length board, to avoid upsetting the child.

## Weighing a child using tared weighing

Be sure that the scale is placed on a flat, hard, even surface. It should not be placed on a loose carpet or rug, but a firm carpet that is glued down is acceptable. Since the scale is solar powered, there must be enough light to operate the scale.

To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

Check to see that the mother has removed her shoes. You or someone else should hold the naked baby wrapped in a blanket.

Ask the mother to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and remain still. The mother's clothing must not cover the display or solar panel. Remind her to stay on the scale even after her weight appears, until the baby has been weighed in her arms.

With the mother still on the scale and her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of a mother and baby and the number 0.0.

Gently hand the naked baby to the mother and ask her to remain still. The baby's weight will appear on the display. Record this weight in the VISIT NOTES of the child's GROWTH RECORD. Be careful to read the numbers in the correct order (as though you were viewing while standing on the scale rather than upside-down).

**Note:** If a mother is very heavy (e.g. more than 100 kg) and the baby's weight is relatively low (e.g. less than 2.5 kg), the baby's weight may not register on the scale. In such cases, have a lighter person hold the baby on the scale.

Note that the scale pictured in the JOB AID: WEIGHING AND MEASURING A CHILD weighs with a precision to the nearest 0.1 kg. **Precision** describes the smallest exact unit that the scale can measure. The accuracy of the measurements, however, depends on whether the scale is calibrated and whether the observer reads the display correctly.

## Weighing a child alone

If a child is 2 years old or older and will stand still, weigh them alone. Ask the mother to help the child remove shoes and outer clothing. Talk with the child about the need to stand still. Communicate with the child in a sensitive, non-frightening way.

To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready. Ask the child to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and to remain still until the weight appears on the display. Record the child's weight to the nearest 0.1 kg.

If the child jumps on the scale or will not stand still, you will need to use the tared weighing procedure instead.

## Measuring length or height

Depending on a child's age and ability to stand, measure their length or height. A child's length is measured lying down (recumbent). Height is measured standing upright.

If a child is less than 2 years old, measure recumbent length. If the child is aged 2 years or older and able to stand, measure standing height.

In general, standing height is about 0.7 cm less than recumbent length. This difference was taken into account in developing the World Health Organization (*WHO*) *child growth standards* used to make the charts in the GROWTH RECORD. Therefore, it is important to adjust the measurements if length is taken instead of height, and vice versa.

If a child aged under 2 years will not lie down for measurement of length, measure standing height and add 0.7 cm to convert it to length. If a child aged 2 years or older cannot stand, measure recumbent length and subtract 0.7 cm to convert it to height.

The equipment needed to measure length is a length board (sometimes called an **infantometer**), which should be placed on a flat, stable surface such as a table. To measure height, use a height board (sometimes called a **stadiometer**) mounted at a right angle between a level floor and against a straight, vertical surface such as a wall or pillar.

A good length or height board should be made of smooth, moisture-resistant (varnished or polished) wood. The horizontal and vertical pieces should be firmly joined at right angles. A movable piece serves as the footboard when measuring length, or the headboard when measuring height. Unless there is a digital counter, a measuring tape should be fixed firmly in a groove along the length of the board, so that moving parts do not scrape it and rub off the markings.

## Preparing to measure length or height

Be prepared to measure length/height immediately after weighing, while the child's clothes are off. Check that the child's shoes, socks, and hair ornaments have been removed. Undo braids if they will interfere with the measurement of length/height.

If a baby is weighed naked, a dry diaper can be put back on to avoid getting wet while measuring length. If the room is cool and there is any delay, keep the child warm in a blanket until their length/height can be measured.

Whether measuring length or height, the mother is needed to help with measurement and to soothe and comfort the child. Explain to the mother the reasons for the measurement and the steps in the procedure. Answer any questions that she may have. Show her and tell her how she can help you. Explain that it is important to keep the child still and calm, to obtain a good measurement.

# Measuring length

Cover the length board with a thin cloth or soft paper, for hygiene and for the baby's comfort.

Explain to the mother that she will need to place the baby on the length board herself and then help to hold the baby's head in place while you take the measurement. Show her where to stand when placing the baby down, i.e. opposite you, on the side of the length board away from the tape. Also show her where to place the baby's head (against the fixed headboard), so that she can move quickly and confidently without distressing the baby.

## When the mother understands your instructions and is ready to assist:

Ask her to lay the child on their back with their head against the fixed headboard, compressing the hair. Quickly position the head so that an imaginary vertical line from the ear canal to the lower border of the eye socket is perpendicular to the board. (The child's eyes should be looking straight up.) Ask the mother to move behind the headboard and hold the head in this position.

**Speed is important**. Stand on the side of the length board where you can see the measuring tape and move the footboard.

Check that the child lies straight along the board and does not change position.

The shoulders should touch the board, and the spine should not be arched. Ask the mother to inform you if the child arches the back or moves out of position.

Hold down the child's legs with one hand and move the footboard with the other. Apply gentle pressure to the knees to straighten the legs as far as they can go without causing injury.

**Note:** If a child is extremely agitated and both legs cannot be held in position, measure with one leg in position.

**Note:** It is not possible to straighten the knees of neonates to the same degree as older children. Their knees are fragile and could be injured easily, so apply minimum pressure.

While holding the knees, move the footboard against the soles of the child's feet. The soles of the feet should be flat against the footboard, toes pointing upwards. If the child bends the toes or arches the foot and prevents the footboard from touching the soles, scratch the soles slightly and slide in the footboard quickly when the child straightens their toes.

Read the measurement and record the child's length in centimetres, to the last completed 0.1 cm (1 mm), and write it down in the VISIT NOTES of the GROWTH RECORD. This is the last line that you can actually see.

**Remember:** If the child whose length you measured is aged 2 years or more, subtract 0.7 cm from the length and record the result as height in the VISIT NOTES.

**Important:** This information will be used later to assess the child's growth, so if there are any errors in what you enter here, you will not be able to assess their growth correctly.

# Job aid: Weighing and measuring a child

## Weighing a child using a taring scale

Be sure that the scale is placed on a flat, hard, even surface. There must be enough light to operate the solar-powered scale.

Explain all procedures to the mother and enlist her help. Babies should be weighed naked; wrap them in a blanket or other covering until weighing. Older children should be weighed with minimal clothing. If it is socially unacceptable to undress the child, remove as much clothing as possible.

**If the child is less than 2 years old**, do tared weighing.

To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.

The mother will remove her shoes and step on the scale to be weighed first alone. Have someone else hold the undressed baby wrapped in a blanket.

Ask the mother to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and to remain still. The mother's clothing must not cover the display or the solar panel. Remind her to stay on the scale, even after her weight appears, until the baby has been weighed in her arms.

With the mother still on the scale and her weight displayed, tare the scale by covering the solar panel for a second. The scale is tared when it displays a figure of a mother and baby and the number 0.0.

Hand the undressed baby to the mother and ask her to remain still.

The baby's weight will appear on the display (shown to the nearest 0.1 kg). Record this weight.

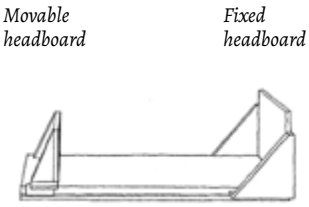

**Note:** If a mother is very heavy (e.g. more than 100 kg) and the baby's weight is relatively low (e.g. less than 2.5 kg), the baby's weight may not register on the scale. In such cases, have a lighter person hold the baby on the scale.

**If the child is 2 years or older** and will stand still, weigh the child alone. If the child jumps on the scale or will not stand still, use the tared weighing procedure instead.

Ask the mother to help the child remove shoes and outer clothing. Talk with the child about the need to stand still.

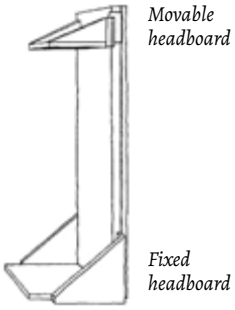
- To turn on the scale, cover the solar panel for a second. When the number 0.0 appears, the scale is ready.
- Ask the child to stand in the middle of the scale, feet slightly apart (on the footprints, if marked), and to remain still until the weight appears on the display.
- Record the child's weight to the nearest 0.1 kg.

## Measuring length or height




Depending on a child's age and ability to stand, measure the child's length or height.

- **If a child is less than 2 years old**, measure the child's length lying down (recumbent) using a length board, which should be placed on a flat, stable surface such as a table.
- **If the child is aged 2 years or older**, measure standing height unless the child is unable to stand. Use a height board mounted at a right angle between a level floor and against a straight, vertical surface such as a wall or pillar.




Standing height is about 0.7 cm less than recumbent length. This difference was taken into account in developing the *WHO child growth standards*. Therefore, it is important to adjust the measurements if length is taken instead of height, and vice versa.

- If a child less than 2 years old will not lie down for measurement of length, measure standing height and add **0.7cm** to convert it to length.
- If a child aged 2 years or older cannot stand, measure recumbent length and **subtract 0.7 cm** to convert it to height.

## Preparing to measure length or height

Be prepared to measure length/height immediately after weighing, while the child's clothes are off. Before weighing:

- remove the child's shoes and socks
- undo braids and remove hair ornaments if they will interfere with the measurement of length/height.

If a baby is weighed naked, a dry diaper can be put back on to avoid getting wet while measuring length.

If the room is cool and there is any delay, keep the child warm in a blanket until length/height can be measured.

Explain all procedures to the mother and enlist her help.

## Measuring length

Cover the length board with a thin cloth or soft paper for hygiene and for the baby's comfort.

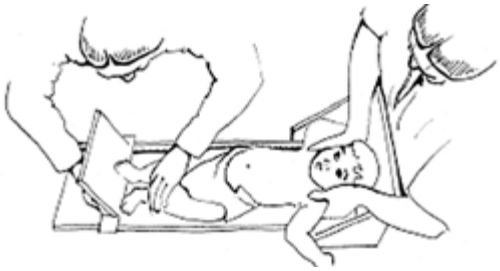
Explain to the mother that she will need to place the baby on the length board herself and then help to hold the baby's head in place while you take the measurement. Show her where to stand when placing the baby down, i.e. opposite you, on the side of the length board away from the tape. Also show her where to place the baby's head (against the fixed headboard) so that she can move quickly and surely without distressing the baby.

- Ask her to lay the child on their back with their head against the fixed headboard, compressing the hair.
- Quickly position the head so that an imaginary vertical line from the ear canal to the lower border of the eye socket is perpendicular to the board. (The child's eyes should be looking straight up.) Ask the mother to move behind the headboard and hold the head in this position.

Speed is important. Standing on the side of the length board where you can see the measuring tape and move the footboard:

- Check that the child lies straight along the board and does not change position. The shoulders should touch the board, and the spine should not be arched. Ask the mother to inform you if the child arches the back or moves out of position.
- Hold down the child's legs with one hand and move the footboard with the other. Apply gentle pressure to the knees to straighten the legs as far as they can go without causing injury. Note: it is not possible to straighten the knees of newborn babies to the same degree as older children. Their knees are fragile and could be injured easily, so apply minimum pressure.
- If a child is extremely agitated and both legs cannot be held in position, measure with one leg in position.
- While holding the knees, pull the footboard against the child's feet. The soles of the feet should be flat against the footboard, toes pointing upwards. If the child bends their toes and prevents the footboard from touching the soles, scratch the soles slightly and slide in the footboard quickly when the child straightens their toes.

- Read the measurement and record the child's length in centimetres to the last completed 0.1 cm in the VISIT NOTES of the GROWTH RECORD. This is the last line that you can actually see (0.1 cm = 1 mm).



**Remember:** If the child whose length you measured is 2 years old or more, subtract 0.7 cm from the length and record the result as height in the VISIT NOTES.

## Measuring standing height

Ensure that the height board is on level ground. Check that shoes, socks and hair ornaments have been removed.

Working with the mother, and kneeling in order to get down to the level of the child:

- Help the child to stand on the baseboard with their feet slightly apart. The back of the head, shoulder blades, buttocks, calves and heels should all touch the vertical board.
- Ask the mother to hold the child's knees and ankles to help keep their legs straight and feet flat, with the heels and calves touching the vertical board. Ask her to focus the child's attention, soothe the child as needed, and inform you if the child moves out of position.
- Position the child's head so that a horizontal line from the ear canal to the lower border of the eye socket runs parallel to the base board. To keep the head in this position, hold the bridge between your thumb and forefinger over the child's chin.
- If necessary, push gently on the tummy to help the child stand to full height.
- Still keeping the head in position, use your other hand to pull down the headboard to rest firmly on top of the head and compress the hair.
- Read the measurement and record the child's height in centimetres to the last completed 0.1 cm in the VISIT NOTES of the GROWTH RECORD. This is the last line that you can actually see (0.1 cm = 1 mm).

**Remember:** If the child whose height you measured is less than 2 years old, add 0.7 cm to the height and record the result as length in the VISIT NOTES.

# Notes

# Session 58

## Measuring: it's not so easy

### Objectives

After completing this session, participants will be able to:

- identify common errors in measuring weight, length and height

### Introduction

A series of picture slides will be shown and the group will try to pick out any problems or particular good points they can see on how the various measurements are being taken.

### Taking measurements

The following are the important points to keep in mind regarding taking measurements:

- Four pieces of information are essential for growth assessment: age, sex, weight, and length or height. If any of these is incorrect, the growth assessment will be incomplete or inaccurate.
- For correct age assessment, use any available written records or make a local events calendar to help determine children's ages as precisely as possible. The local events calendar has to be updated regularly.
- Equipment needs to be in good working order and to be calibrated regularly.
- Measuring children requires specific skills, speed and confidence. With practice, everyone can improve their measuring skills.

## Notes

# Notes (contd)

# Session 59

## Plotting points for growth indicators

### Objectives

After completing this session, participants will be able to:

- identify axes on growth-indicator charts
- plot single points for height-for-age, weight-for-age and weight-for-height charts

### Introduction

Growth indicators are used to assess growth, considering together a child's age and measurements. The purpose is to determine whether a child is growing "normally" or has a growth problem or trend towards a growth problem that should be addressed.

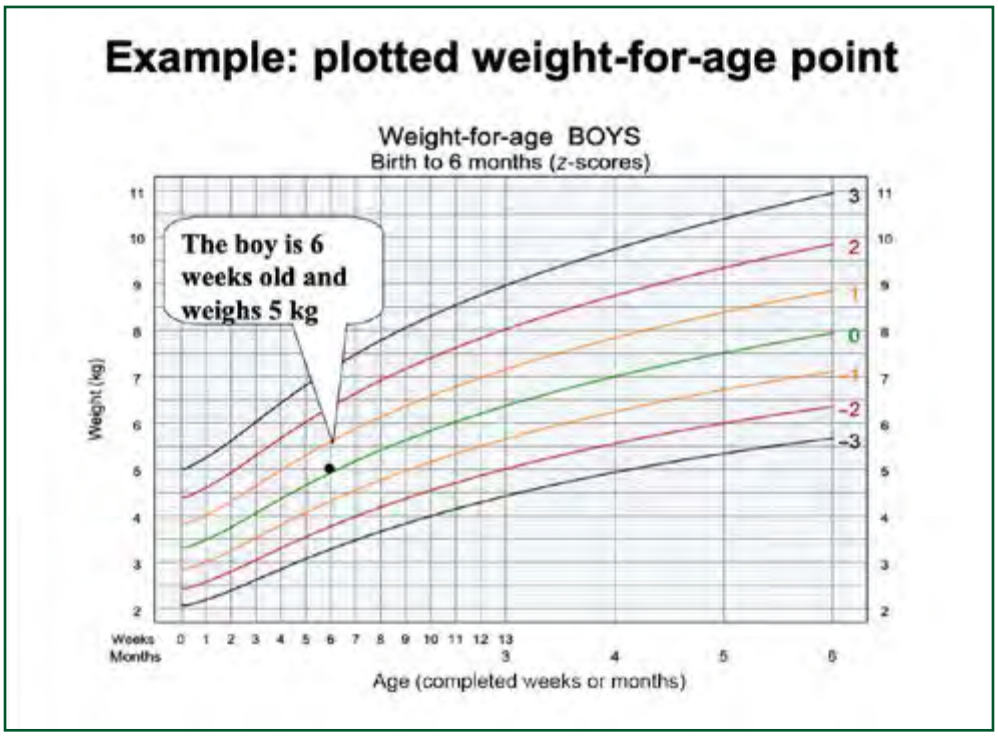
### Plotting points for growth indicators

Growth charts are provided on pages 29–40 of both the BOY'S and the GIRL'S GROWTH RECORDS. Select the appropriate GROWTH RECORD based on the child's sex. Then select the three charts to use, based on the child's age at a given visit. Refer to the table of contents at the beginning of the GROWTH RECORD to make the selection. Growth measurements will be plotted on the selected charts (also called line graphs).

In order to plot points, one needs to understand certain terms related to graphs and the plotting convention that applies in this course:

- ***x*-axis** – the horizontal reference line is at the bottom of the graph. In the GROWTH RECORD graphs, some *x*-axes show age and some show length/height. Plot points on vertical lines corresponding to completed age (in weeks, months, or years and months), or to length or height rounded to the nearest whole centimetre.
- ***y*-axis** – the vertical reference line at the far left of the graph. In the GROWTH RECORD graphs, the *y*-axes show length/height or weight. Plot points on or between horizontal lines corresponding to length/height or weight as precisely as possible.
- **plotted point** – the point on a graph where a line extended from a measurement on the *x*-axis (e.g. age) intersects with a line extended from a measurement on the *y*-axis (e.g. weight).

On the example graph that follows, age (in weeks or months) is on the *x*-axis; weight in kilograms is on the *y*-axis. The horizontal lines represent increments of 0.1 kg (100 g). A point has been plotted for an infant boy who is 6 weeks old and weighs 5 kg.




## Plotting length/height-for-age

Length/height-for-age reflects attained growth in length or height at the child's age at a given visit. This indicator can help identify children who are **stunted** (short for their age) owing to prolonged undernutrition or repeated illness. Children who are tall for their age can also be identified, but tallness is rarely a problem unless it is excessive and may reflect uncommon endocrine disorders.

Charts for length-for-age for younger age groups (birth to 6 months, and 6 months to 2 years) are given on pages 29 and 33 of the GROWTH RECORD. A chart for height-for-age (for children aged 2–5 years) is given on page 37. In each of these charts, the *x*-axis shows age, and the *y*-axis shows length or height in centimetres. Age is plotted in completed weeks from birth until age 3 months; in completed months from 3 to 11 months; and then in completed years and months.

To plot length/height-for-age following the convention of this course, plot completed weeks, months, or years and months on a vertical line (not between vertical lines). For example, if a child is 5½ months old, the point will be plotted on the line for 5 months (not between the lines for 5 and 6 months). Plot length or height on or between the horizontal lines as precisely as possible. For example, if the measurement is 60.5 cm, plot the point midway between the horizontal lines 60 and 61 cm.

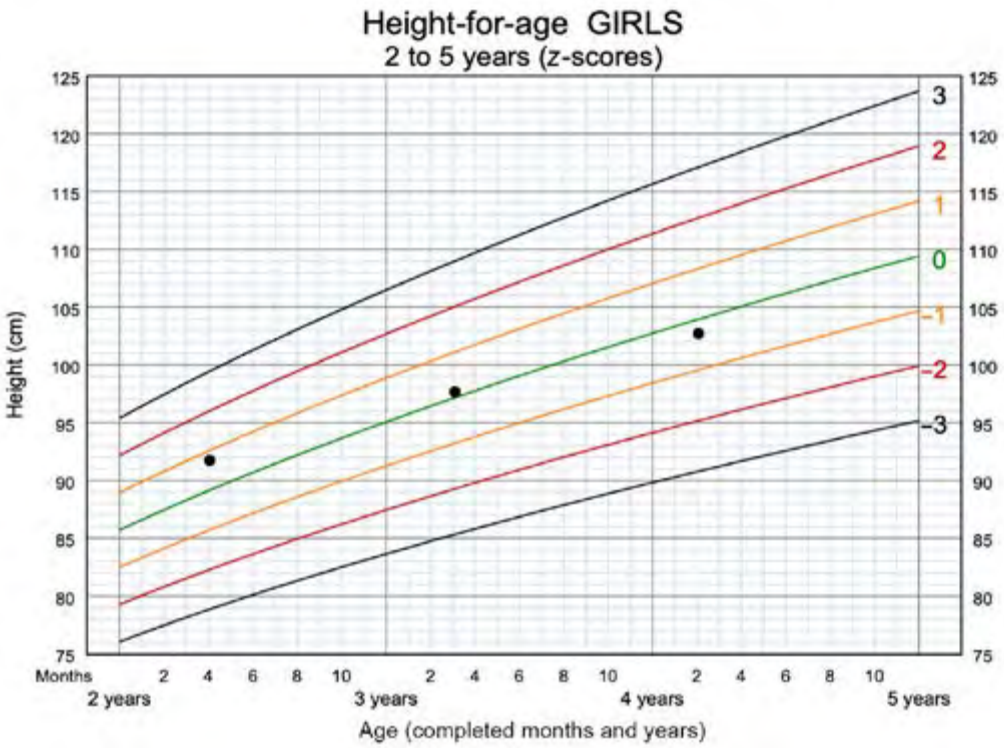
When points are plotted for two or more visits, connect adjacent points with a straight line, to better observe the trend.

Judge whether a plotted point seems sensible, and, if necessary, re-measure the child. For example, a baby's length should not be shorter than at the previous visit. If it is, one of the measurements was wrong.

# SHORT-ANSWER EXERCISE 59.A

## Example: Anna

The following graph shows Anna's height-for-age at three visits. The horizontal lines represent 1 cm increments. At the first visit, Anna was 2 years and 4 months of age and was 92 cm in height.




1. Connect the plotted points on the growth chart above for Anna.
2. Fill in the blanks in the sentences below to describe the meaning of the points plotted.
   a. At her second visit, Anna was _____ in height at age ____ years and ____ months.
   b. At her third visit, Anna was _____ in height at age ____ years and _____ months.

# Plotting weight-for-age

Weight-for-age reflects body weight relative to the child's age on a given day. This indicator is used to assess whether a child is underweight or severely underweight, but it is not used to classify a child as overweight or obese. Because weight is relatively easily measured, this indicator is commonly used, but it cannot be relied upon in situations where the child's age cannot be accurately determined, such as refugee situations. It is important to note also that a child may be underweight either because of short length/height (stunting), or because of thinness, or both.

**Note:** If a child has **oedema of both feet**, fluid retention increases the child's weight, masking what may actually be very low weight. Plot this child's weight-for-age and weight-for-length/height, but mark clearly on the growth chart (close to the plotted point) that the child has oedema. Such a child is automatically considered severely undernourished and should be referred for specialized care.

Weight-for-age charts for three age groups are given on pages 30, 34 and 38 of the GROWTH RECORD. On each of these charts, the *x*-axis shows age, and the *y*-axis shows weight in kilograms. Age is plotted in completed weeks from birth until age 3 months; in completed months from 3 to 11 months; and then in completed years and months.

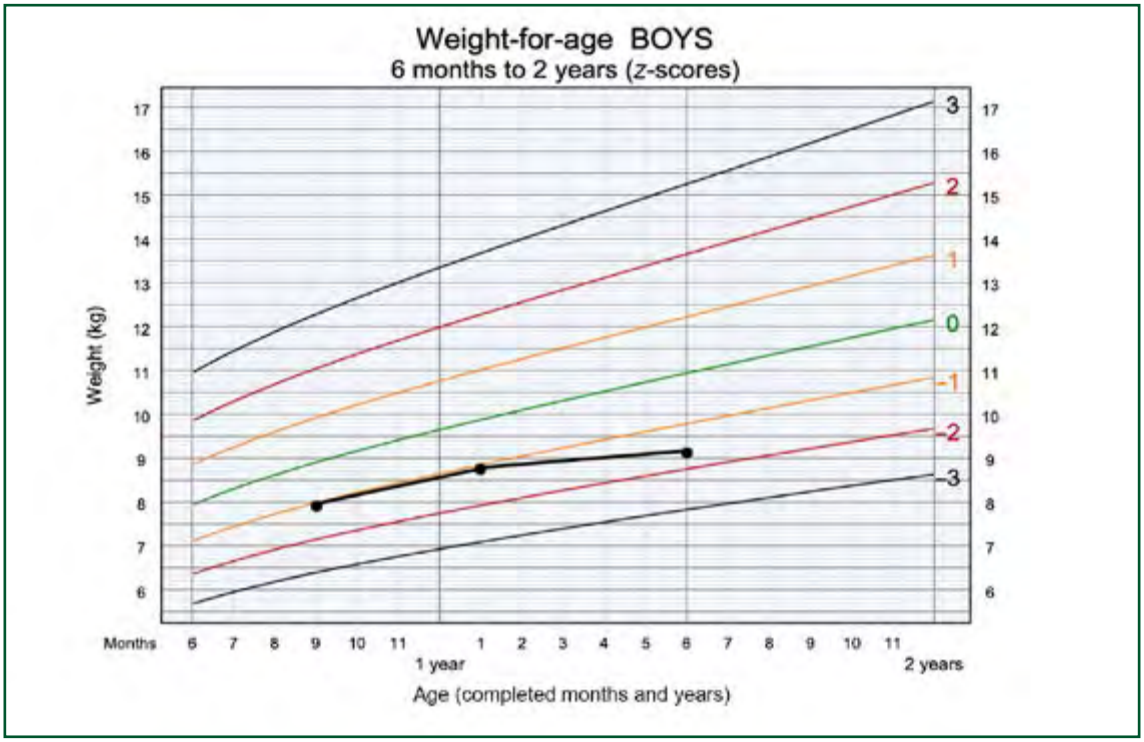
To plot weight-for-age, plot completed weeks, months, or years and months on a vertical line (not between vertical lines). Plot weight on a horizontal line or in the space between lines, to show weight measurement to 0.1 kg, e.g. 7.8 kg.

When points are plotted for two or more visits, connect adjacent points with a straight line, to better observe trends.

## SHORT-ANSWER EXERCISE 59.B

### Example: Amahl

The following graph shows weight-for-age at three visits of a boy named Amahl. The horizontal lines represent 0.1 kg (100 g) increments.




Refer to Amahl's weight-for-age chart above to answer the following questions:

1. How much did Amahl weigh at age 9 months?
2. How old was Amahl at the visit when he weighed a little less than 9 kg?
3. What was Amahl's age and weight at the last visit shown?
4. Plot a point for Amahl's next visit, when he is age 1 year and 11 months and weighs 11.2 kg. Draw a line to connect this visit to the previous one.

# Plotting weight-for-length/height

Weight-for-length/height reflects body weight in proportion to attained growth in length or height. This indicator is especially useful in situations where children's ages are unknown (e.g. refugee situations). Weight-for-length/height charts help identify children with low weight-for-height who may be **wasted** or severely wasted. Wasting is usually caused by a recent illness or food shortage that causes acute and severe weight loss, although chronic undernutrition or illness can also cause this condition. These charts also help to identify children with high weight-for-length/height who may be at risk of becoming overweight or obese.

Charts for weight-for-length are given on pages 31 and 35 of the GROWTH RECORD. The chart for infants from birth to 6 months (page 31) is an enlargement of part of the chart for children from birth to 2 years (page 35); the enlargement is provided to allow more room for plotting and detecting small changes in the growth of infants. A chart for weight-for-height (for children aged 2 to 5 years) is given on page 39. In these charts, the *x*-axis shows length or height in centimetres, and the *y*-axis shows weight in kilograms.

For weight-for-length/height, plot length or height on a vertical line (e.g. 75 cm, 78 cm). It will be necessary to round the measurement to the nearest whole centimetre (i.e. round down 0.1 to 0.4 and round up 0.5 to 0.9), and follow the line up from the *x*-axis to wherever it intersects with the weight measurement.

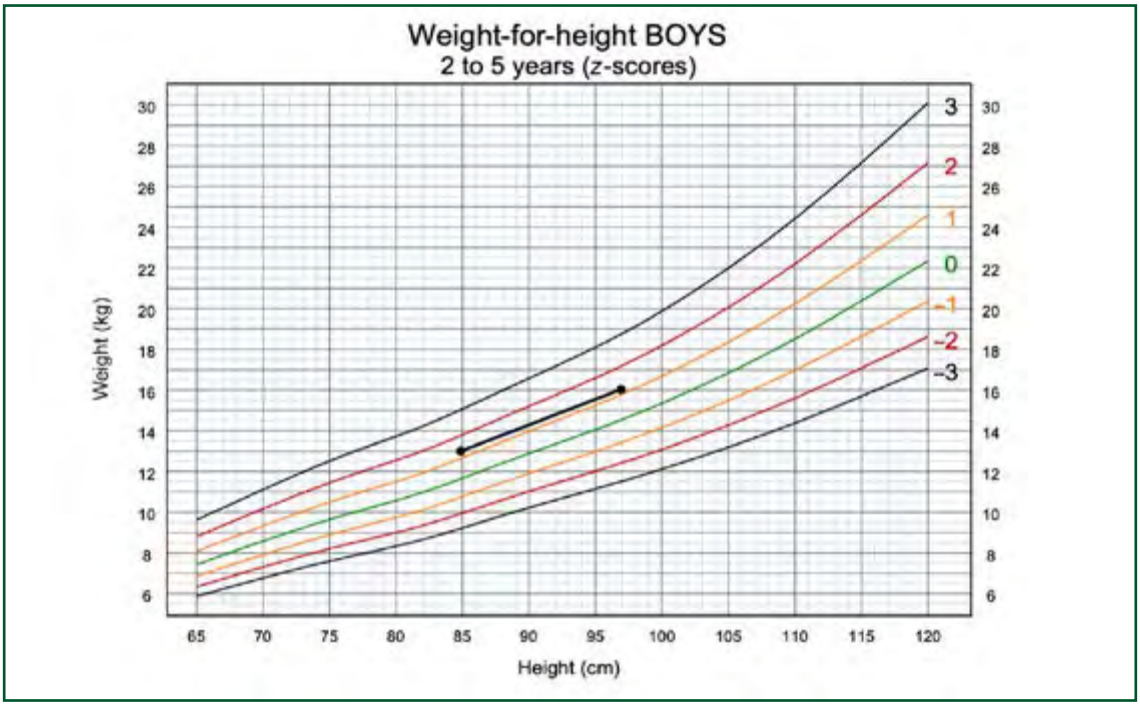
Plot weight as precisely as possible given the spacing of lines on the chart.

When points are plotted for two or more visits, connect adjacent points with a straight line, to better observe the trend.

## SHORT-ANSWER EXERCISE 59.C

### Example: Tran

This chart shows Tran's weight-for-height at two visits. The horizontal lines represent 0.5 kg (500 g) increments, while the vertical lines represent 1 cm increments. At the first visit, Tran is 2 years and 2 months old. He is 85 cm in height and weighs 13 kg.




Refer to Tran's weight-for-height chart above to answer the following questions:

1. How tall is Tran at the second visit shown on the graph?
2. How much does Tran weigh at the second visit?
3. Plot the point for Tran's next visit, when he is 112 cm tall and weighs 19 kg. Connect the plotted point to the point for the previous visit.

## Exercise 59.A Continuing case studies – Nalah and Toman

In Session 56, you began a Girl's growth record for Nalah and a Boy's growth record for Toman. Get out these Growth records. In this exercise, you will plot these children's measurements on the appropriate growth charts in each booklet.

### Nalah

On the Personal data page of Nalah's Girl's growth record, you have recorded her birth weight as 2.9 kg and her length as 49 cm. Look at the Visit notes in Nalah's Girl's growth record. You have recorded information from four clinic visits there, including her age, weight and length at each visit.

Find the three growth charts that are suitable for Nalah's age group in the Girl's growth record.

Use the information from Nalah's Personal data page and Visit notes, to plot points on each growth chart. Plot and connect points for all five points available for Nalah on each growth chart.

If you have difficulties, talk with a facilitator at any time.

### Toman

Look at the Visit notes page of Toman's Boy's growth record. You have recorded information from four visits there, including his age, weight and length at each visit.

Find the three growth charts that are suitable for Toman's age group in the Boy's growth record.

Use the information from Toman's Visit notes, to plot points on each growth chart. Plot and connect points for all four visits on each growth chart.

When you have finished this exercise, review your answers with a facilitator.

# Notes

# Notes (contd)

# Notes (contd)

# Session 60

## Interpreting plotted points for growth indicators

### Objectives

After completing this session, participants will be able to:

- identify growth problems from plotted points on a single indicator chart
- define a growth problem using several indicator charts and observations

### Introduction

In Session 59, we learnt how to plot points on different indicator graphs. Here we will be looking at what those points mean for single indicators, and for combinations of the indicators.

### Interpreting plotted points

The curved lines printed on the growth charts will help you interpret the plotted points that represent a child's growth status.

The line labelled 0 on each chart represents the *median*, which is, generally speaking, the average.

The other curved lines are ***z*-score lines**,[1] which indicate distance from the average. The median and the *z*-score lines on each growth chart were derived from measurements of children in the WHO Multicentre Growth Reference Study.

*z*-score lines on the growth charts are numbered positively (1, 2, 3) or negatively (–1, –2, –3).

In general, a plotted point that is far from the median in either direction (for example, close to the 3 or –3 *z*-score line) may represent a growth problem.

To interpret points, consider other factors, such as the growth trend, the health condition of the child and the height of the parents.

Next to each growth chart in the GROWTH RECORD, there is a list of the growth problems represented by plotted points that are above or below certain *z*-score lines. Read points as follows:

- A point between the *z*-score lines –2 and –3 is "below –2".
- A point between the *z*-score lines 2 and 3 is "above 2".



[1] *z*-scores may also be called standard deviation (SD) scores. See the GLOSSARY of this *Participant's manual*, for a more complete explanation of *z*-scores or SD scores.

# Growth problems

## Growth problems chart

Compare the points plotted on the child's growth charts with the *z*-score lines, to determine whether they indicate a growth problem. Measurements in the shaded boxes are in the normal range.

| *z*-score[a] | Growth indicators | | | |
|---|---|---|---|---|
| | Length/ height-for-age | Weight-for-age | Weight-for-length/height | BMI-for-age |
| Above 3 | See note 1 | See note 2 | Obese | Obese |
| Above 2 | | | Overweight | Overweight |
| Above 1 | | | Possible risk of overweight (see note 3) | Possible risk of overweight (see note 3) |
| 0 (median) | | | | |
| Below –1 | | | | |
| Below –2 | Stunted (see note 4) | Underweight | Wasted | Wasted |
| Below –3 | Severely stunted (see note 4) | Severely underweight (see note 5) | Severely wasted | Severely wasted |

BMI: body mass index.
[a]The *z*-score label in this column refers to a range. For example "above 2" means 2.1 to 3.0; "median" includes –1.1 to 1.0; "below –2" refers to –2.1 to –3.0, etc.

**Notes:**

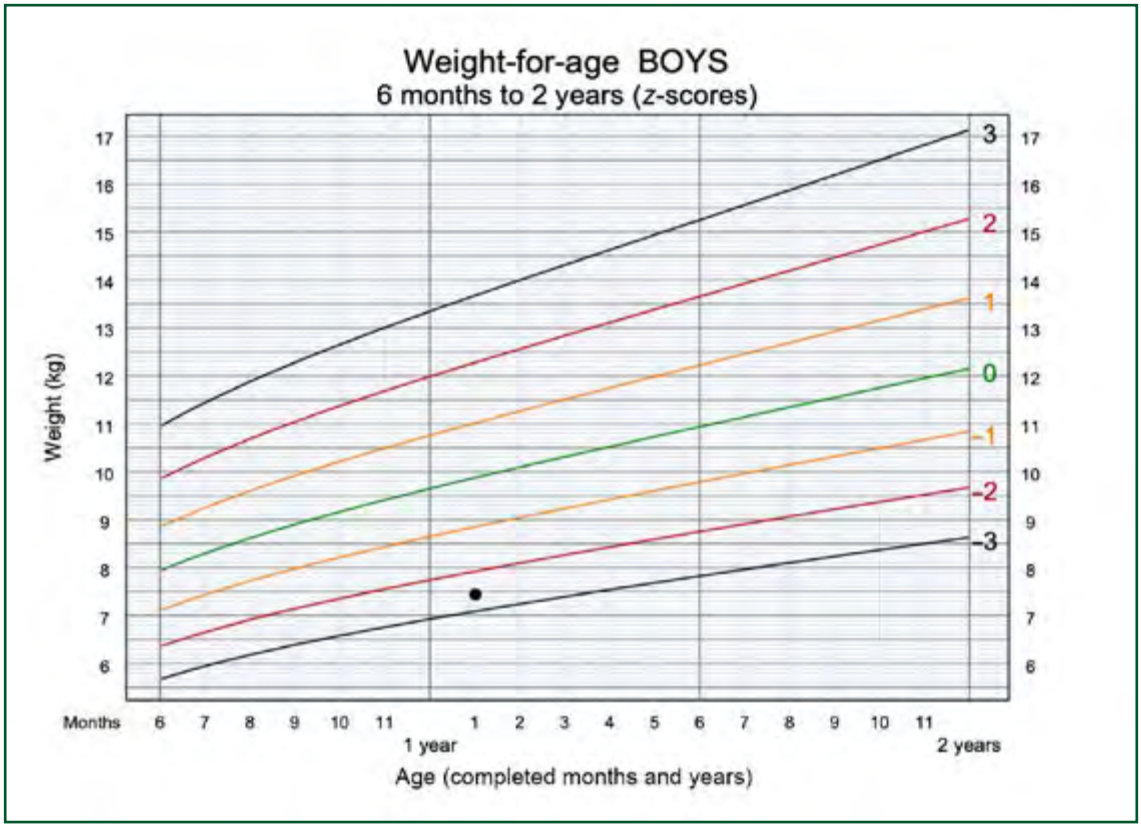
1. A child in this range is very tall. Tallness is rarely a problem, unless it is so excessive that it may indicate an endocrine disorder such as a growth-hormone-producing tumour. Refer a child in this range for assessment if you suspect an endocrine disorder (e.g. if parents of normal height have a child who is excessively tall for their age).
2. A child whose weight-for-age falls in this range may have a growth problem, but this is better assessed from weight-for-length/height or BMI-for-age.
3. A plotted point above 1 shows possible risk. A trend towards the 2 *z*-score line shows definite risk.
4. It is possible for a stunted or severely stunted child to become overweight.
5. This is referred to as very low weight in Integrated Management of Childhood Illness training modules; see IMCI in-service training. Geneva: World Health Organization; 1997 (WHO/CHD/97.3.K; https://www.who.int/publications/m/item/WHO-CHD-97.3.K).

# Study and discussion of examples of some of the growth problems identified above

The examples are illustrated by selected growth charts and photos, to show the correspondence between growth indicators and clinical observations. Study the charts and refer as directed to the photos in Module E of the *WHO training course on child growth assessment. Photo booklet*.[1]

## Example: Underweight boy, photo 9

The following weight-for-age chart is for a boy who is 1 year and 1 month old. He weighs 7.5 kg and is 70.3 cm in length. Notice that his weight-for-age is below the –2 *z*-score line, so he is considered underweight. This boy is pictured in photo 9 in the *Photo booklet*. Look at his photo now.

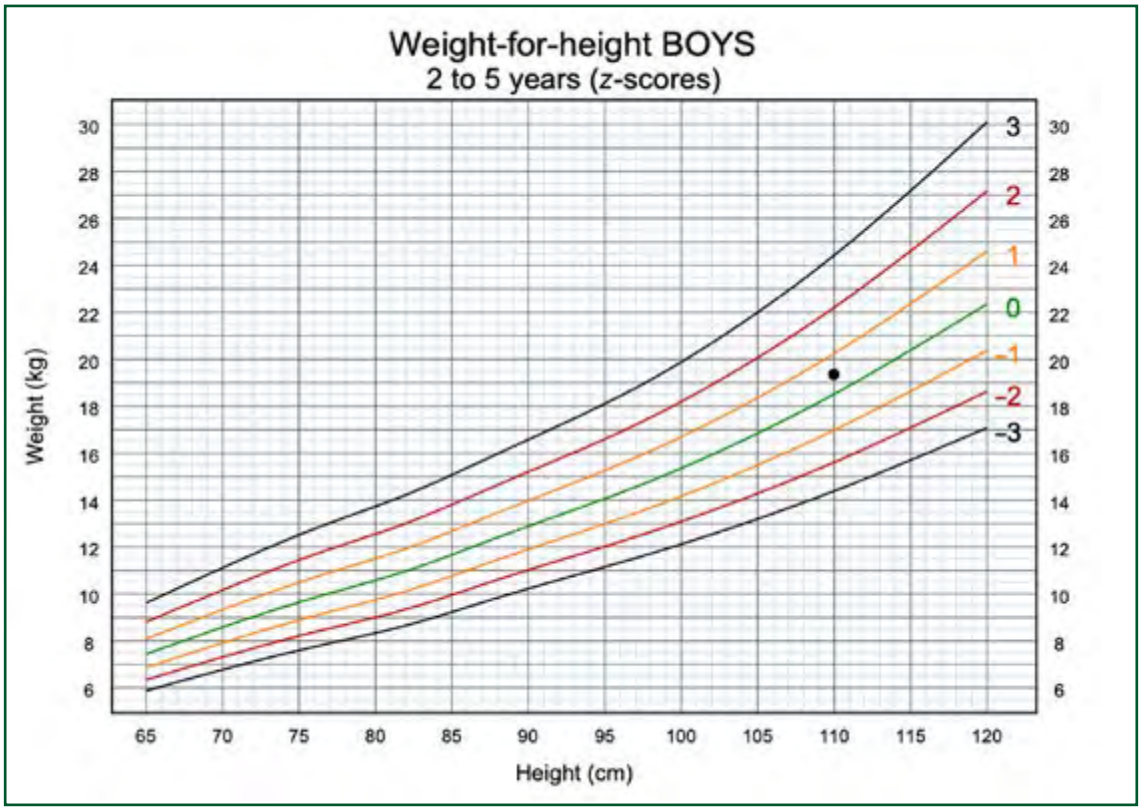





[1] Training course on child growth assessment: WHO child growth standards. Photo booklet. Geneva: World Health Organization; 2008 http://www.who.int/childgrowth/training/module_e_photo_booklet.pdf).

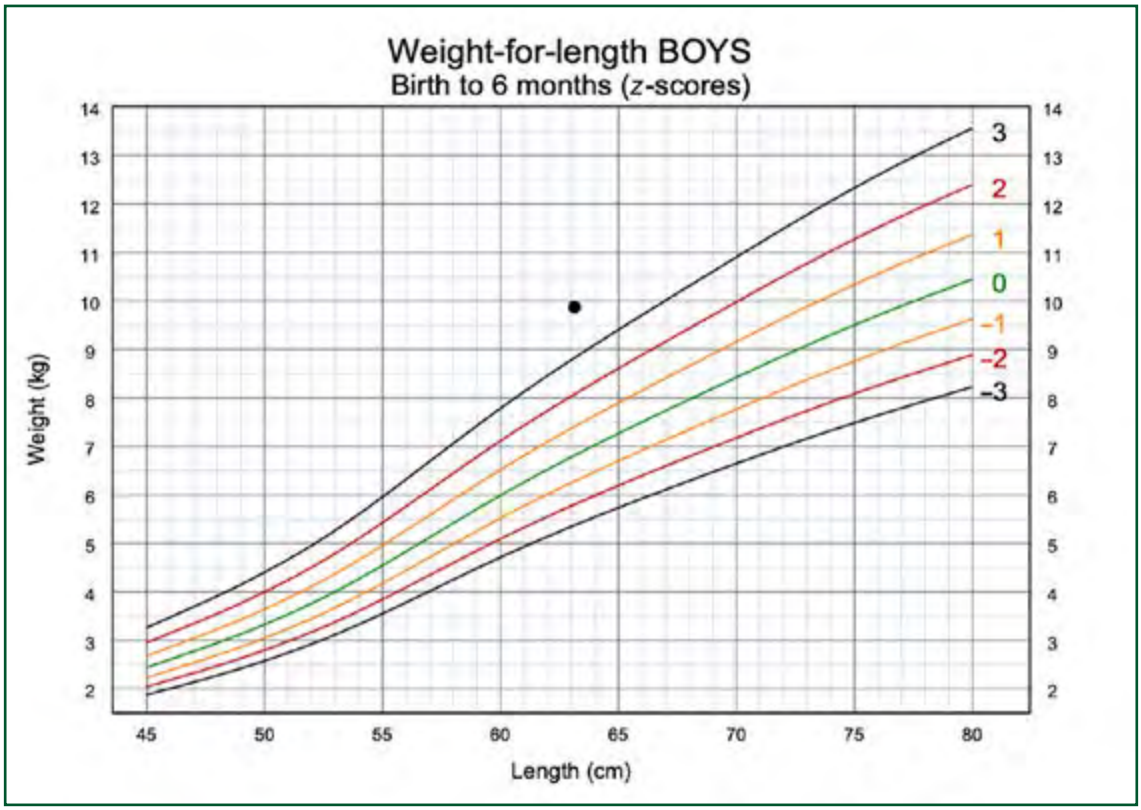
## Example: Normal-weight boy, photo 10

Look at photo 10 of a boy aged 3 years and 11 months. He weighs 19.5 kg and is 109.6 cm tall. His weight-for-age is above the 1 *z*-score line, and his height-for-age is above the 1 *z*-score line (charts not shown). His weight-for-height, shown on the chart below, is in the normal range.



### Example: Obese boy, photo 11

Look at photo 11 of a boy who is 3½ months old. He weighs 10 kg and is 63 cm long. On the length-for-age chart, he is above the median. His weight-for-length chart, shown below, indicates that he is obese. Notice that his weight-for-length is above the 3 *z*-score line.




## Consider all growth charts and clinical observations

It is important to consider all of a child's growth charts together, as their growth problem may be evident in one chart but not the others. For example, if a child is underweight according to the weight-for-age chart, you must also consider the child's length-for-age and weight-for-length.

A stunted child may have a normal weight-for-height, but have low weight-for-age owing to shortness, hence the recommendation to focus more on the weight-for-length/height and the length/height-for-age charts. Looking at the growth charts all together will help you to determine the nature of growth problems.

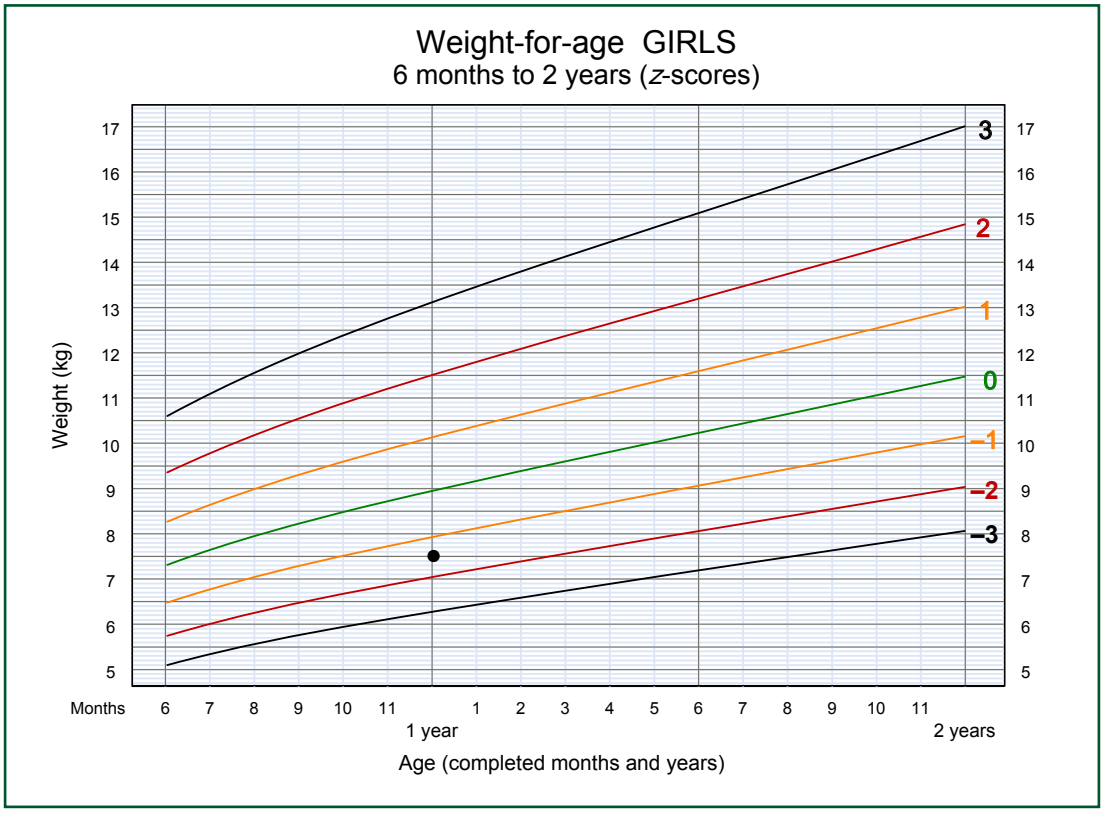
Note that weight-for-length/height is usable even when a child's age is not known.

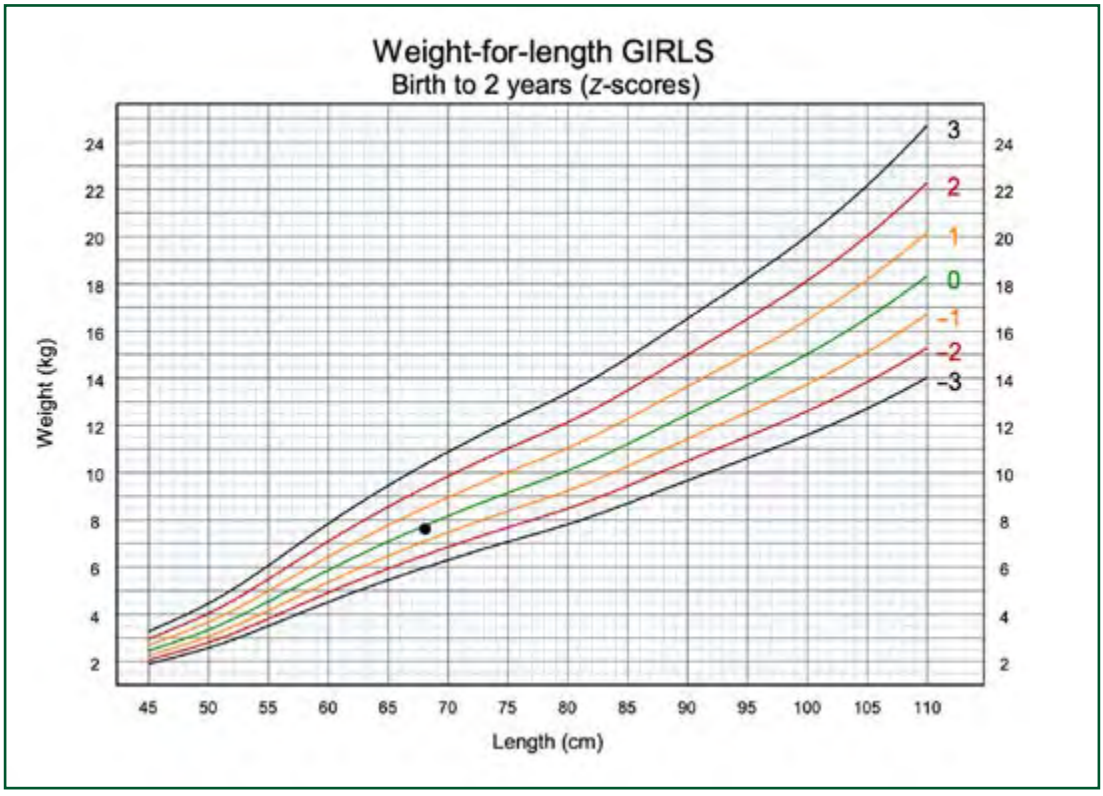
Looking at the growth charts all together will help you to determine the nature of growth problems.

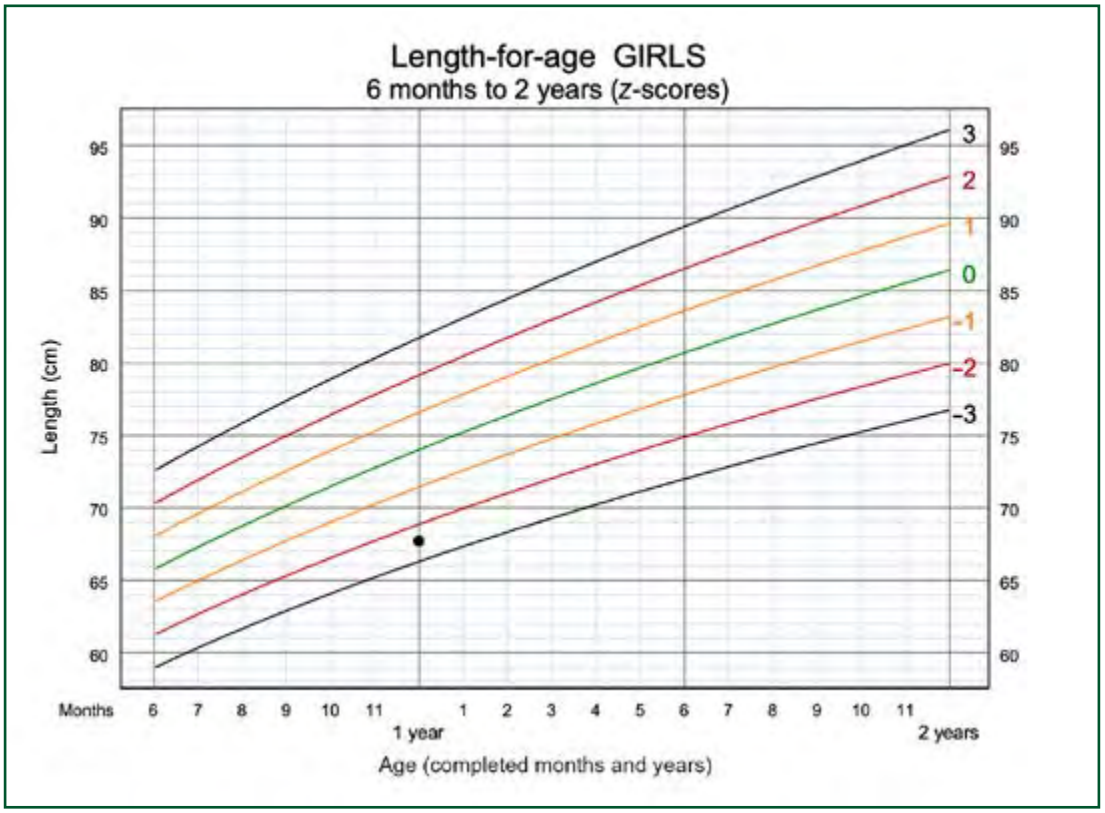
# Study and discussion of growth status using various charts and clinical signs

## Example: Stunting, photo 12

The girl in photo 12 is aged 1 year 0 months, is 67.8 cm long and weighs 7.6 kg. Her weight-for-age chart is shown below, and her length-for-age and weight-for-length charts are on the next page. Notice that her weight-for-age is low, but still in the normal range. Her weight-for-length is on the median, so she has a completely normal appearance. Her length-for-age is below the –2 *z*-score line, however, showing that she is stunted.






When interpreting the growth charts, remember to consider your observation of the child's appearance. A child who is below the –1 *z*-score in weight-for-length may be fine if they appear lean (fleshed out) rather than wasted (too thin). A child who is above the 1 *z*-score in weight-for-length may be fine if they appear heavy (sturdy, mostly muscular) as opposed to having noticeable fat.

Clinical signs of **marasmus** and **kwashiorkor** require special attention. The wasting associated with marasmus (photos 1–3) will be apparent in the child's graphs for weight-for-age and weight-for-length/height. However, the oedema (fluid retention) associated with kwashiorkor (photos 4–8) can hide the fact that a child has very low weight. When you plot the weight of a child who has oedema of both feet, it is important to note on the growth chart that the child has oedema. A child with oedema of both feet is assumed to have a *z*-score below –3 and should be referred for specialized care.

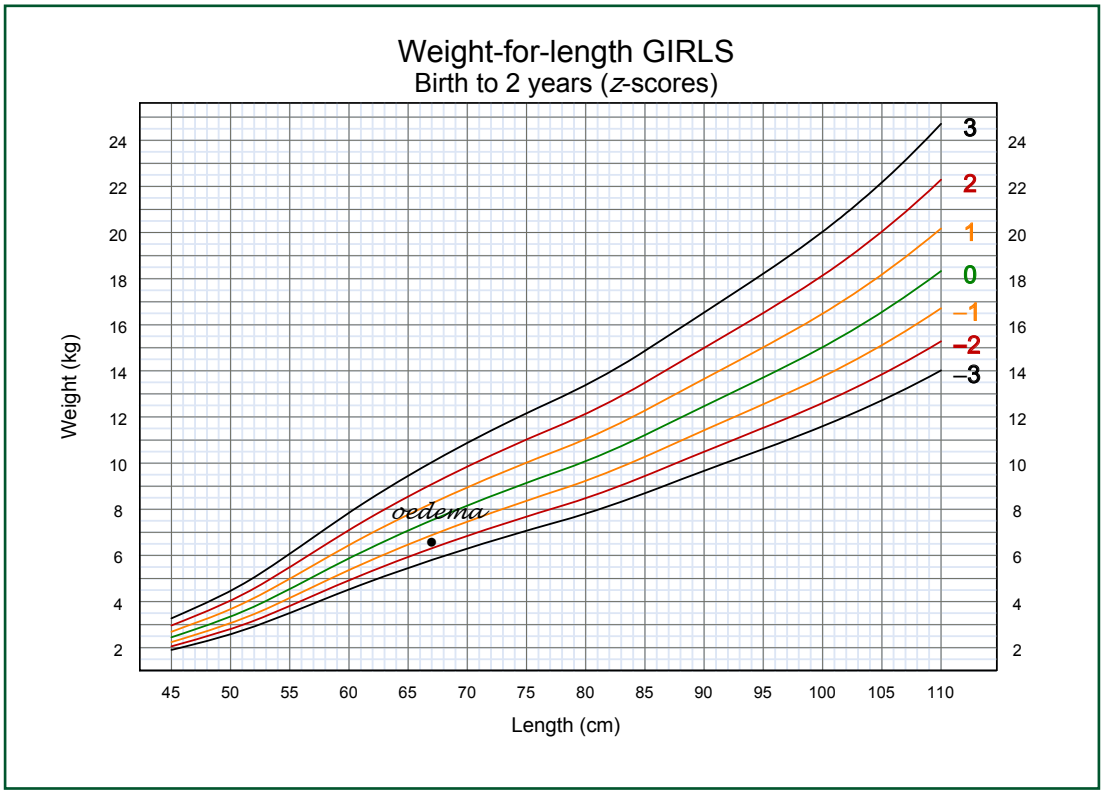
## Example: Marasmus, photos 1 and 2

Look at photos 1 and 2, which show a child with marasmus. It is clear that the child needs immediate referral.

## Example: Oedema of both feet, photo 8

Look at photo 8, which shows a girl with oedema of both feet. She is aged 1 year and 8 months, weighs 6.5 kg and is 67 cm long. Since she has oedema of both feet, she should be referred. Her weight-for-length is graphed on the next page; it appears to be above the –2 *z*-score line because her fluid retention masks her low weight.

When interpreting the growth charts, remember to consider your observation of the child's appearance. A child who is below the –1 *z*-score in weight-for-length may be fine if they appear lean (fleshed out) rather than wasted (too thin). A child who is above the 1 *z*-score in weight-for-length may be fine if they appear heavy (sturdy, mostly muscular) as opposed to having noticeable fat.


Weight-for-length GIRLS
Birth to 2 years (z-scores)
Weight (kg)
Length (cm)
oedema
3
2
1
0
–1
–2
–3
2
4
6
8
10
12
14
16
18
20
22
24
45
50
55
60
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70
75
80
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90
95
100
105
110

# Notes

# Session 61

## Interpreting trends on growth charts

### Objectives

After completing this session, participants will be able to:

- interpret trends on growth charts
- determine whether a child is growing normally, has a growth problem or is at risk of a growth problem

### Introduction

We saw in a previous session that even if you have just one set of measurements, you can get a good picture of growth status by looking at different indicators. In this session, we will go further and look at growth trends that we can draw when a child has multiple visits.

### Interpreting trends on growth charts

To identify trends in a child's growth, one needs to look at points for growth indicators plotted at a series of visits. Trends may indicate that a child is growing consistently and well, or they may show that a child has a growth problem, or that a child is "at risk" of a problem and should be reassessed soon.

"Normally" growing children follow trends that are, in general, parallel to the median and *z*-score lines. Most children will grow in a "track", that is, on or between *z*-score lines and roughly parallel to the median; the track may be below or above the median.

The following situations may indicate a problem or suggest risk:

- a child's growth line crosses a *z*-score line and keeps going
- there is a sharp incline or decline in the child's growth line
- the child's growth line remains flat (stagnant); i.e. there is no gain in weight or length/height.

Whether the above situations actually represent a problem or risk depends on where the change in the growth trend began and where it is headed. For example, if a child has been ill and lost weight, a rapid gain (shown by a sharp incline on the graph) can be good and indicate "catch-up growth". Similarly, for an overweight child, a slightly declining or flat weight growth trend towards the median may indicate desirable "catch-down". It is very important to consider the child's whole situation when interpreting trends on growth charts.

Growth lines that cross *z*-score lines (not just those that are labelled on the chart) indicate possible risk.

Children who are growing and developing normally will generally be on or between −2 and 2 *z*-scores of a given indicator.

The growth of an individual child plotted over time is expected to track fairly close to the same *z*-score.

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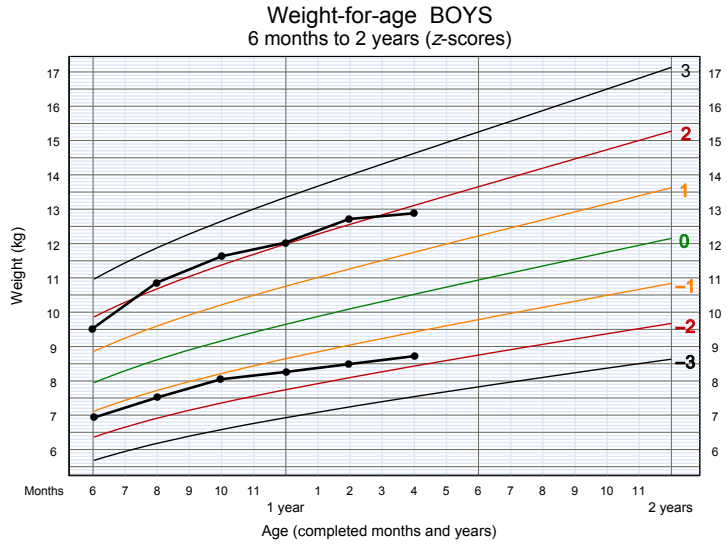
## Example: crossing *z*-score lines




The figure above presents two theoretical growth lines. In one of the lines, growth generally tracks along the 2 *z*-score line, crossing it from time to time in a pattern that indicates no risk. The other line shows a boy's weight falling away from his expected growth track. Although his growth line remains between −1 and −2 *z*-scores, this child has in fact crossed *z*-scores following a systematic trend that indicates risk.

A growth line tending towards the median is probably a good change. If it tends away from the median, this probably signals a problem or risk of a problem.

If the growth line is inclining or declining so that it may cross a *z*-score line soon, consider whether the change may be problematic. In the example graph, if the trend in the lower growth line continues, it will soon cross the cut-off line (−2 *z*-scores) that defines underweight. If a trend towards stunting, overweight or underweight is noticed in time, it may be possible to intervene in good time to prevent a problem.

## A sharp incline or decline

Any sharp incline or decline in a child's growth line requires attention. If a child has been ill or severely undernourished, a sharp incline is expected during the re-feeding period, as the child experiences "catch-up" growth. Otherwise, a sharp incline is not good, as it may signal a change in feeding practices that will result in overweight.

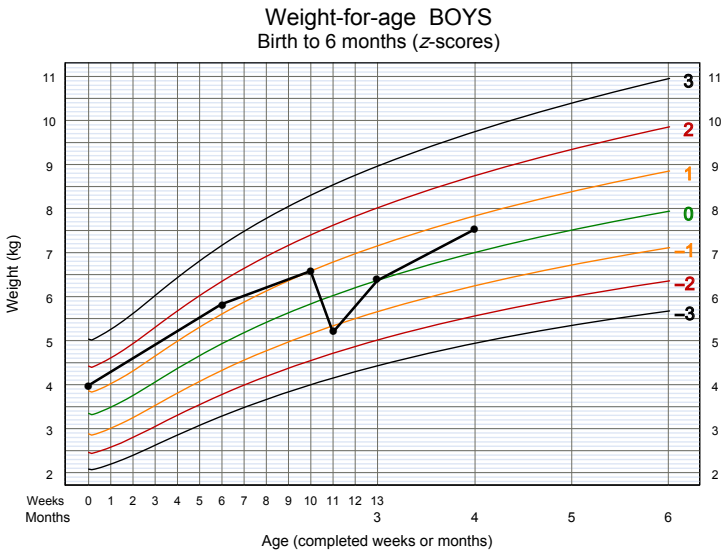
If a child has gained weight rapidly, look also at height. If the child grew in weight only, this is a problem. If the child grew in weight and height proportionately, this is probably catch-up growth from previous undernutrition, because of improvement in feeding or recovery from previous infection. In this situation, the weight-for-age and height-for-age charts should show inclines, while the weight-for-height growth line tracks steadily along the *z*-score curves.

A sharp decline in the growth line of a normal or undernourished child indicates a growth problem to be investigated and remedied.

Even if a child is overweight, they should not have a sharp decline in the growth line, as losing too much weight rapidly is undesirable. The overweight child should instead maintain their weight while increasing in height; i.e. the child should "grow into their weight".

61/5

## Sharp incline or decline




The weight-for-age chart in the example above shows a sharp decline from age 10 to 11 weeks, when the child had diarrhoea and lost 1.3 kg. The chart shows a sharp incline after the episode of diarrhoea, during re-feeding, as he gained back most of the lost weight.

# Flat growth line (stagnation)

A flat growth line, also called stagnation, usually indicates a problem. If a child's weight stays the same over time as their height or age increases, the child most likely has a problem. If height stays the same over time, the child is not growing. The exception is when an overweight or obese child is able to maintain the same weight over time, bringing the child to a healthier weight-for-height.

If an overweight child is losing weight over time, and the weight loss is reasonable, the child should continue to grow in height. However, if the child experiences no growth in height over time, there is a problem. This problem would be evident as a flat growth line on the height-for-age chart.

For children in age groups where the growth rate is fast, as shown by steep growth curves (e.g. during the first 6 months of life), even 1 month's stagnation in growth represents a possible problem.

In the example on the figure below, the child's weight-for-age chart shows a flat growth line (stagnation) from age 6 months to 8 months and again from about 1 year and 4 months to 2 years. These periods of stagnation correspond to times when the child was having episodes of malaria (indicated by arrows). From 8 months up to 1 year and 4 months, she grew. Owing to periods of stagnation, the child's weight-for-age is about to cross the –2 *z*-score line.

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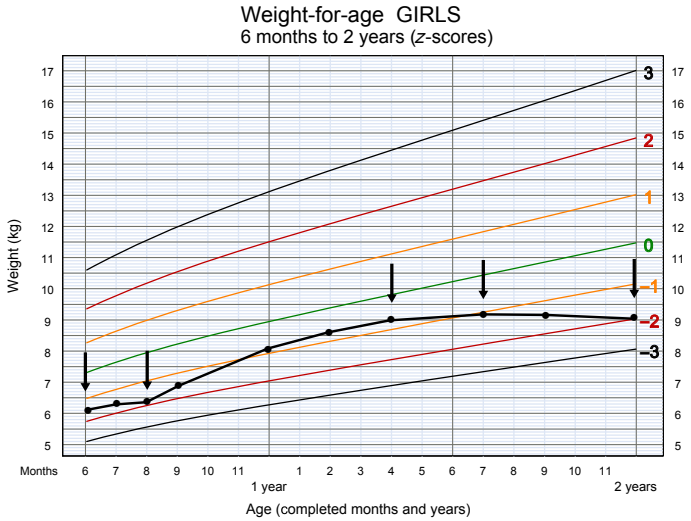
## Flat growth line (stagnation)



# Flat growth line (catch-down)

Unlike the flat line on the previous chart, the flat line on the weight-for-height chart below shows a good trend. The child was overweight, but her weight remained about the same while she grew in height. She is no longer overweight.

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## Flat growth line (catch-down)


## Exercise 61.A Continuing case studies – Nalah and Toman

In Exercise 59.A, you plotted points on the growth charts in Nalah's and Toman's Growth records. In this exercise, you will review the growth charts for Nalah and Toman, to identify:

- each child's growth patterns
- any current growth problem(s)
- any growth trend(s) that may become a problem.

To describe growth problems, use the definitions given on page 450 of Session 60, and next to the growth charts in the Growth record. To describe growth patterns and trends, point out whether the growth line shows an incline or decline, whether it is tracking along or between certain *z*-score lines, whether it has crossed a *z*-score line, etc.

## Nalah

Review the growth charts that you completed in Nalah's GIRL'S GROWTH RECORD. Then write short answers to the questions below:

1a. Describe the growth trend shown on Nalah's length-for-age chart.

1b. Does Nalah's length-for-age chart show a current growth problem or risk of a problem, and if so, what is it?

2a. Describe the growth trend shown on Nalah's weight-for-age chart.

2b. Does Nalah's weight-for-age chart show a current growth problem or risk of a problem, and if so, what is it?

3a. Describe the growth trend shown on Nalah's weight-for-length chart.

3b. Does Nalah's weight-for-length chart show a current growth problem or risk of a problem, and if so, what is it?

4. Summarize Nalah's growth pattern over the first 6 months of life.

## Toman

Review the growth charts that you completed in Toman's BOY'S GROWTH RECORD. Then write short answers to the questions below:

1a. Describe the growth trend shown on Toman's length-for-age chart.

1b. Does Toman's length-for-age chart show a current growth problem or risk of a problem, and if so, what is it?

2a. Describe the growth trend shown on Toman's weight-for-age chart.

2b. Does Toman's weight-for-age chart show a current growth problem or risk of a problem, and if so, what is it?

3a. Describe the growth trend shown on Toman's weight-for-length chart.

3b. Does Toman's weight-for-length chart show a current growth problem or risk of a problem, and if so, what is it?

4. Briefly summarize Toman's growth pattern from age 1 year and 1 month to age 2 years.

When you have finished this exercise, review your answers with a facilitator.

# Notes

# Session 62

## Growth assessment results and feeding counselling when the child is growing well

### Objectives

After completing this session, participants will be able to:

- explain to a mother or caregiver the results of their child's growth assessment
- explain how to deal with a child who has severe growth problems
- gather information on feeding practices using the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

### Introduction

The mother or caregiver will be very curious to know what you found when you assessed their child's growth, so the first step is to inform them in a clear and sensitive way, using appropriate counselling skills.

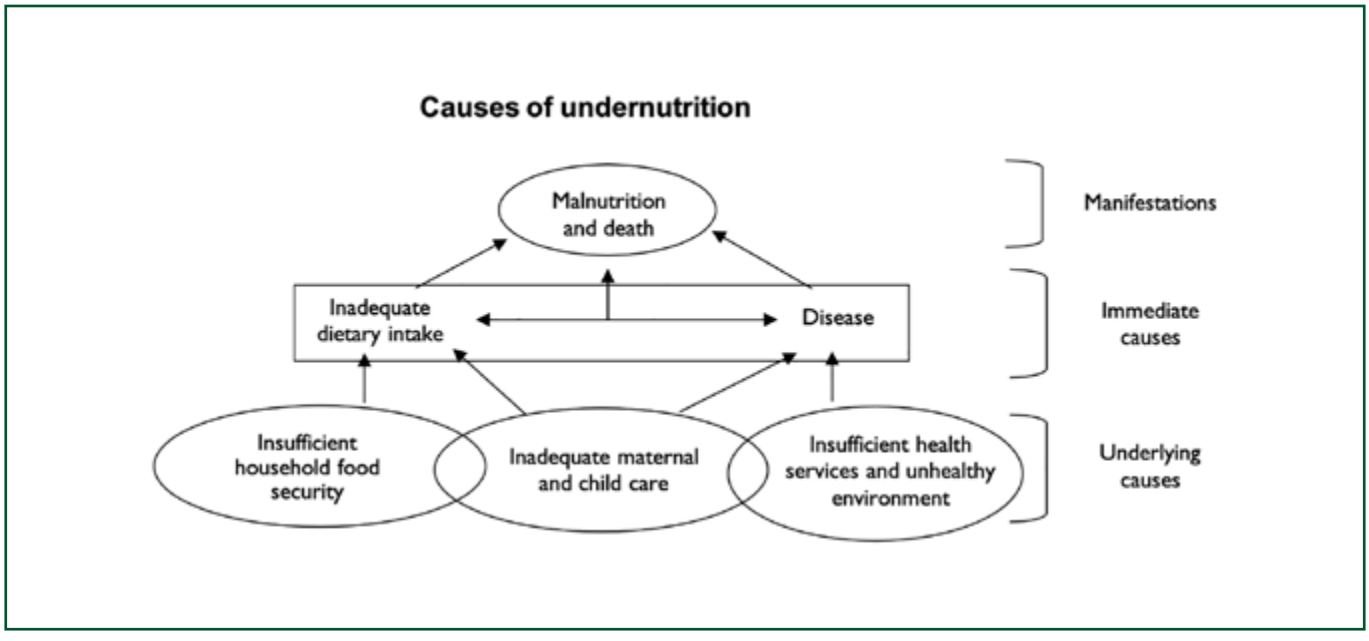
If the child is growing well, the next step is to provide counselling on appropriate feeding for the child's upcoming age group, so that the child will continue to grow well. The JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS is used for this purpose.

If there is a growth problem, or a trend towards a problem, you will interview the caregiver, to identify possible causes of the problem. A booklet is provided with this course to assist in these interviews; the booklet includes two Job aids:

- JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION
- JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT

These two Job aids suggest questions to ask the caregiver, in order to to identify causes of problems, and they suggest specific advice related to each possible cause.

Many social and environmental factors can affect a child's feeding, care and resulting growth. That is why it is very important to determine the most important causes of a problem for a particular child **before** counselling. For example, if a child is wasted primarily because the family lacks food, it will not be helpful simply to advise the caregiver to feed the child more often. In such a situation, it would be better to guide the family to a source of assistance.



As implied in the diagram, in order to resolve the immediate causes of undernutrition, i.e. inadequate diet and disease, it may be necessary to address causes in the home environment, such as the absence of a responsible adult to care for the child during the day, or poor sanitation or contaminated water. It is not always possible to resolve these causes, but the health-care provider can help the mother to understand them and think of positive actions to take.

Causes of overweight and obesity are also typically rooted in the environment. For example, a busy family may rely on high-energy convenience foods instead of taking time for leisurely, well-planned meals. Children may not be able to play outdoors safely, and thus spend too much inactive time watching television or playing video games. Resolving problems of overweight and obesity will require addressing root environmental causes as well as immediate dietary causes.

During the counselling session, it is important to agree on actions to improve the child's growth that are feasible for the mother or caregiver. If too many actions are suggested, they may forget many of them or be discouraged. Suggest the most important and feasible actions (two or three), and encourage the caregiver to bring the child back for follow-up. The follow-up visit will give the caregiver a chance to report success and the health-care provider a chance to give additional advice as needed. Change takes time and the underlying causes of poor growth are unlikely to be resolved in a single counselling session. The need to follow up and monitor the child's feeding, care and growth is critical.

## Inform the caregiver of growth assessment results

Throughout the growth assessment, the caregiver has seen you recording measurements in the GROWTH RECORD and plotting and connecting points on the growth charts. They are likely to be curious about the results. Explain that you have plotted the points to see whether the child is growing as expected, or whether there is any growth problem. Explain the points and trends on each chart to the caregiver, clearly and simply.

If a child is growing well, be sure to say so to the mother or caregiver and compliment them. If there are problems, it is still very important to keep the discussion positive. Avoid any suggestion of accusing or judging the caregiver. You want to build the caregiver's trust and communicate that they can help the child.

Use clear, non-medical language as much as possible. If you use an unfamiliar word, such as "obese", explain it to the caregiver. For example, you could say, "obese means very heavy for one's height". Words such as "stunted", "wasted" and "obese" are used in the GROWTH RECORD, so be prepared to explain them in simple words.

## Refer children with severe growth problems

Children with any of the following severe undernutrition problems should be referred urgently for specialized care:

- severely wasted (below –3 *z*-scores for weight-for-length/height)
- clinical signs of marasmus (e.g. appears severely wasted, like "skin and bones")
- clinical signs of kwashiorkor (e.g. generalized oedema; thin, sparse hair; dark or cracking/peeling patches of skin)
- oedema of both feet.

An undernourished child may have a current illness (such as diarrhoea) or a chronic health problem that could be contributing to undernutrition. If so, treat the contributing illness or problem if you are able to, and explain how to feed a sick child (KEY MESSAGE 10). If you cannot treat, refer the child for appropriate treatment. If you know or suspect that a child has a chronic health problem (such as HIV/AIDS), refer the caregiver and/or child for counselling or testing as appropriate.

Refer children with obesity (above 3 *z*-scores for weight-for-length/height) for **medical assessment and specialized management** if these services are available.

Whenever you refer a child, explain to the caregiver the reasons for the referral and stress its importance. According to your usual practice, provide a referral form or note for the caregiver to take with them. Also write a note in the GROWTH RECORD in the VISIT NOTES section, and show the caregiver this note. Ensure that they know when and where to take the child. Ask whether they have transportation, and help them to arrange it if necessary. Follow up later, to ensure that the child was taken for the required urgent care or medical assessment.

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.

## Using the Job aid: Food intake – 6 up to 24 months

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

In Session 15, you looked at the Job aid: Feeding history – 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.

A useful way to find out what a child eats is to ask the caregiver 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 Job aid: Food intake – 6 up to 24 months helps you to do this.

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

### Instructions for completing the Job aid: Food intake – 6 up to 24 months

1. Greet the mother/caregiver. 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/caregiver name), let us talk about what (child's name) ate yesterday.*
5. Continue with:
   *As we go through yesterday, tell me all (child's name) ate or drank, meals, other foods, water or breastfeeds.*
   *What was the first thing you gave (child's name) after he woke up yesterday?*
   *Did (child's name) eat or drink anything else at that time or breastfeed?*
6. If the caregiver mentions a preparation, such as a porridge or stew, ask them 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 caregiver, to help them remember all the food/drinks/breastfeeds that the child had.
9. Continue to remind the caregiver you are interested in what the child ate and drank yesterday (caregivers 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 Job aid: Food intake – 6 up to 24 months the practices that are present. If appropriate, show the caregiver the pictures of thin and thick consistency (for porridge and mixed foods). Ask them which drawing is most like the food they gave the child. Was it thick, did it stay on the spoon and hold a shape on the plate, or was it thin and did it flow off the spoon and not hold its shape on the plate?
12. Praise practices you wish to encourage. Offer two or three Key messages as needed and discuss how the caregiver 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 Job aid: Food intake – 6 up to 24 months when they are eating again.

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

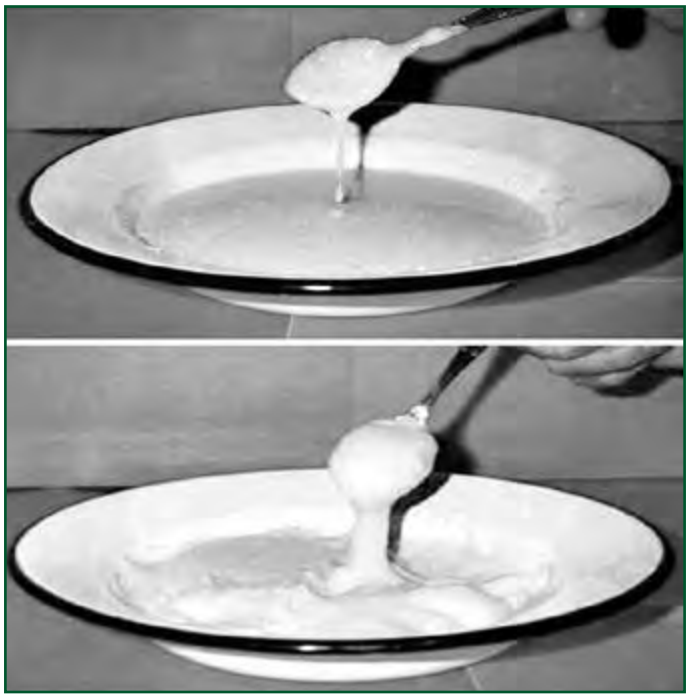
**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

## Food consistency pictures



# Completed Job aid: Food intake – 6 up to 24 months for Demonstration 62.A

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see Reference tool: Food intake – 6 up to 24 months for the message).

## Job aid: Food intake – 6 up to 24 months

**Child's name:**

**Date of birth:** **Age of child at visit:** 11 months

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | Slow weight gain | |
| Child received breast milk? | ✓ | |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 2 times: at breakfast and dinner | Yes |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | ✓ fish in the evening | |
| Child ate a dairy product yesterday? | ✓ milk in the porridge | |
| Child ate pulses, nuts or seeds yesterday? | ✓ beans at midday | |
| Child ate a dark-green or yellow vegetable or yellow fruit yesterday? | ✓ papaya at breakfast and greens in the evening | |
| Child ate sufficient number of meals and snacks yesterday, for their age? | ✓ 3 meals and 1 snack | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | ✓ | |
| Caregiver assisted the child at mealtimes? | ✓ | |
| Child took any vitamin or mineral supplements? | — | |
| Child ill or recovering from an illness? | — | |

# Notes

# Session 63

## Investigating causes of undernutrition

### Objectives

After completing this session participants will be able to:

- explain when to investigate causes of undernutrition
- identify the key sections of the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION
- explain how to use the Job aid
- identify the eight steps involved in investigating causes and counselling for undernutrition

### Introduction

It is important to investigate the causes of the problem before counselling the mother or caregiver.

This investigation should be carried out for any child who is:

- wasted (below –2 *z*-scores for weight-for-length/height)
- underweight (below –2 *z*-scores for weight-for-age)[1]
- stunted (below –2 *z*-scores for length/height-for-age) and not overweight or at risk of overweight
- has a growth trend towards one of these problems.

### JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION

Use the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION provided with this course. The left-hand side of this Job aid lists questions to ask the caregiver. The right-hand side lists advice to be given, depending on the caregiver's answers. Some pages of the Job aid are used only for children in a specific age group, while others apply to all children.

To use the Job aid, first ask all of the relevant questions about causes. Give advice only after the investigation of causes is complete, so that you can tailor your advice to the most important causes.

To investigate causes of undernutrition:

- ask all the relevant questions for the child's age
- listen carefully to the caregiver's answers
- ask follow-up questions as needed, to get complete information to understand the causes of the child's undernutrition
- note causes that are applicable for the child.

If there are many applicable causes, try to identify the most important ones. Ask the caregiver for their opinion about which causes are most important. You may comment on causes as they are discovered, but give advice only when the investigation of causes is complete.

If the child is currently ill or has a chronic disease that could be a cause of undernutrition, treat the child (or refer the child for treatment) rather than completing the entire interview about causes. Also advise the mother how to feed the child during illness using the feeding recommendations for the child's age group in the GROWTH RECORD. When the child returns for follow-up, you can investigate other possible reasons for the undernutrition.

1 In highly undernourished populations, the number of children below –2 *z*-score in weight-for-age and length/height-for-age will be high. It may therefore be necessary to consider lower *z*-score cut-off values for selecting children for counselling.

If the child has experienced a trauma (such as death in the family or a change in caregiver), this may be a contributing factor to a decrease in food intake. In this type of situation, assess whether it would be better to wait to conduct the interview at a later time.

Questions in the interview are related to breastfeeding, the child's appetite, the types and variety of foods given, the frequency of feeding, family mealtime habits, illnesses, recent trauma, and social and environmental factors that may contribute to undernutrition. The interview also includes a question to ask the caregiver directly what they think the causes may be.

The interview requires taking time with the caregiver, but taking this time is critical, in order to identify the most relevant and helpful advice. In a busy health facility, it may be necessary to assign specific health-care providers to the tasks of interviewing and counselling mothers. Group counselling is an option to consider, if the number of undernourished children is too large for staff to deal with individually.

## Steps in investigating causes of undernutrition

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**JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION**

- **Step 1:** Find out whether the child is currently ill
- **Step 2:** If not ill, initiate investigation of causes
- **Step 3:** Ask about any recent changes in eating and/or breastfeeding
- **Step 4:** Discuss age-specific questions about the child's feeding
- **Step 5:** Ask about recurrent illnesses
- **Step 6:** Assess possible underlying social and environmental causes
- **Step 7:** Jointly with the mother/caregiver, identify causes
- **Step 8:** Counsel

Take time now to study the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION. Focus on the questions listed on the left-hand side. Remember that you will ask all of the relevant questions for the child's age, listen to the mother's or caregiver's replies, and determine the most important causes of undernutrition before giving advice.

While interviewing the caregiver, you may note several possible causes of undernutrition, for example, feeding practices that differ from the recommendations for the child's age. You may also note sanitation problems that could cause illnesses leading to undernutrition. In addition, you may note social and environmental factors that could affect the child's feeding and care. Some examples follow.

- If three or more children under 5 years of age live in the household, the child is at risk of undernutrition and neglect. The risk is decreased if there are two or more people who share responsibilities for child feeding and care.
- If there is no mother or no father present in the household (e.g. owing to family separation or death), or if one parent is not involved in the child's care, the child's risk of undernutrition and neglect is increased.
- If the mother or father is not in good health, the child's risk is increased.
- If the caregiver states that there is not usually enough food to feed the family, they are facing serious obstacles and need food assistance as well as advice.

When there are several possible causes of undernutrition, it is helpful to focus on the main causes that can be changed. After asking the questions in the interview, ask the caregiver's opinion of the causes, so that you know which causes they recognize. Then summarize what you see as the main causes. The next exercise includes an example of an interview with the mother of an undernourished child.

# Dialogue with Nalah's mother

The scripted interview follows the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION. The steps are labelled in the script.

- Step 1 is covered in the background information and at the beginning of the interview, when the nurse explains the nutritional problem to Mrs Parab.
- (The nurse locates the pages in the Job aid for a baby age 6 months to 1 year.)
- In Step 2, the nurse asks permission to interview the mother about causes of the problem.
- Since Nalah is not ill, the nurse will do Step 3 of the Job aid (asking about breastfeeding).
- Then the nurse will go to Step 4 and ask questions about feeding from that page.
- The nurse will then ask the questions intended for children of all ages (listed in Steps 5 and 6).
- The first part of the dialogue will end with Step 7, identifying likely causes of undernutrition. The next session will deal with counselling to address these causes.

Nalah is now 6 months old and has visited the health centre five times since her birth. Nalah is the only child at home living with her mother and father. Both parents are in good health; neither is known to be HIV positive. Her growth has been charted in the GIRL'S GROWTH RECORD. Because Nalah is below the –2 *z*-score line in both length-for-age and weight-for-age, the nurse will counsel the mother, Mrs Parab, about growth and feeding. Before giving any advice, the nurse will interview Mrs Parab about Nalah's feeding and the home situation, in order to find out possible causes of her undernutrition.

## SCRIPT 1: DIALOGUE WITH NALAH'S MOTHER ABOUT THE CAUSES OF UNDERNUTRITION

**Step 1:** Nalah is not currently ill and has no known chronic disease.

| | |
|---|---|
| **Nurse:** | *Thank you for bringing Nalah back again, Mrs Parab. Now that we have measured and weighed her, let's take a minute to talk, shall we?* |
| **Mrs Parab:** | *Of course.* |
| **Nurse:** | (Showing the GROWTH CHARTS) *As you can see from her length chart, Nalah was an average length at birth and she could have grown along this green line if all was going well. But we can see that she is a lot shorter than an average girl of 6 months. Her weight also is a lot lower than the average. Since her growth in both weight and length have slowed down together, she does not look too thin. But we want her to grow longer and to gain weight.* |
| **Mrs Parab:** | *What should we do?* |

**Step 2:** The nurse begins at page 4 of the Job aid, since Nalah is 6 months old.

| | |
|---|---|
| **Nurse:** | *Well, since Nalah has not been ill, I think we should focus on her feeding. Do you mind if I ask you some questions so that we can better understand the reasons why her growth has slowed down?* |
| **Mrs Parab:** | *That would be fine.* |

**Step 3:**

| | |
|---|---|
| **Nurse:** | *Alright then, has Nalah been breastfeeding less or eating less than usual?* |
| **Mrs Parab:** | *Maybe less, because it's hard to breastfeed when I have to go to work. Sometimes I have to leave her with my neighbour.* |

**Step 4:**

| | |
|---|---|
| **Nurse:** | *So you are still breastfeeding?* |
| **Mrs Parab:** | *Yes, when I can.* |
| **Nurse:** | *That's good. How many times is that during a day and a night?* |
| **Mrs Parab:** | *When I have Nalah with me at work, I breastfeed about four or five times from morning until night. If she stays with my neighbour, I can only breastfeed twice, once in the morning and once at night.* |
| **Nurse:** | *Do you have any difficulty with breastfeeding itself? Is Nalah attaching well to the breast and emptying the breasts whenever she breastfeeds?* |
| **Mrs Parab:** | *Well, I have never thought about that. I was told that I should feed her from both breasts, so sometimes I switch to the other breast before the first is empty.* |
| **Nurse:** | *That is something we can look at together in a moment. Do you give Nalah any other fluids besides breast milk?* |
| **Mrs Parab:** | *I sometimes have given her water, and I leave her some milk when she stays with my neighbour.* |
| **Nurse:** | *What kind of milk?* |
| **Mrs Parab:** | *I buy it at the shop. It's cow's milk from a tin.* |
| **Nurse:** | *Do you add any water to it?* |
| **Mrs Parab:** | *No, because it already looks thin to me.* |
| **Nurse:** | *How many times does the neighbour give her the milk?* |
| **Mrs Parab:** | *Twice, I think.* |
| **Nurse:** | *And how does she feed Nalah the milk?* |
| **Mrs Parab:** | *In a cup.* |
| **Nurse:** | *That is good. Do you or the neighbour give Nalah any semi-solid or solid foods?* |
| **Mrs Parab:** | *My neighbour gives her some porridge if she seems hungry after the milk.* |
| **Nurse:** | *How often is that?* |
| **Mrs Parab:** | *Not more than once a day.* |
| **Nurse:** | *How does the neighbour feed Nalah the porridge?* |
| **Mrs Parab:** | *With a spoon.* |
| **Nurse:** | *Have you offered Nalah any porridge at home?* |
| **Mrs Parab:** | *Not yet.* |

**Step 5:**

| | |
|---|---|
| **Nurse:** | *Let me just ask you a few more questions about Nalah's health and your home.Is Nalah often tired, or sick with diarrhoea, cough, or fever?* |
| **Mrs Parab:** | *Nalah does not seem strong to me. She sometimes has a runny nose, and she likes to be held. She does not move around a lot but lies still.* |

**Step 6:**

| | |
|---|---|
| **Nurse:** | *Tell me about where you live. Do you have a latrine or toilet?* |
| **Mrs Parab:** | *No, we live in a poor area. There is a common latrine for many houses.* |
| **Nurse:** | *Where do you get water?* |
| **Mrs Parab:** | *We get water from a tap in the yard, and once a week I buy water in large cans.* |
| **Nurse:** | *Do you boil or treat your water?* |
| **Mrs Parab:** | *I boil the drinking water, but not the water for washing dishes.* |

**Nurse:** *It is very good that you boil the water for drinking. How is water stored in your home?*
**Mrs Parab:** *I just keep it in the same cans that we buy it in.*

**Nurse:** *How many people are living at home now?*
**Mrs Parab:** *Just me, my husband and Nalah.*

**Nurse:** *And how is your health?*
**Mrs Parab:** *We are fine, although I am very tired, I must admit.*

**Nurse:** *Does Mr Parab help with Nalah?*
**Mrs Parab:** *He is out looking for construction work most days, but he helps a bit.*

**Nurse:** *Do you have enough food to feed the family?*
**Mrs Parab:** *We have enough to manage.*

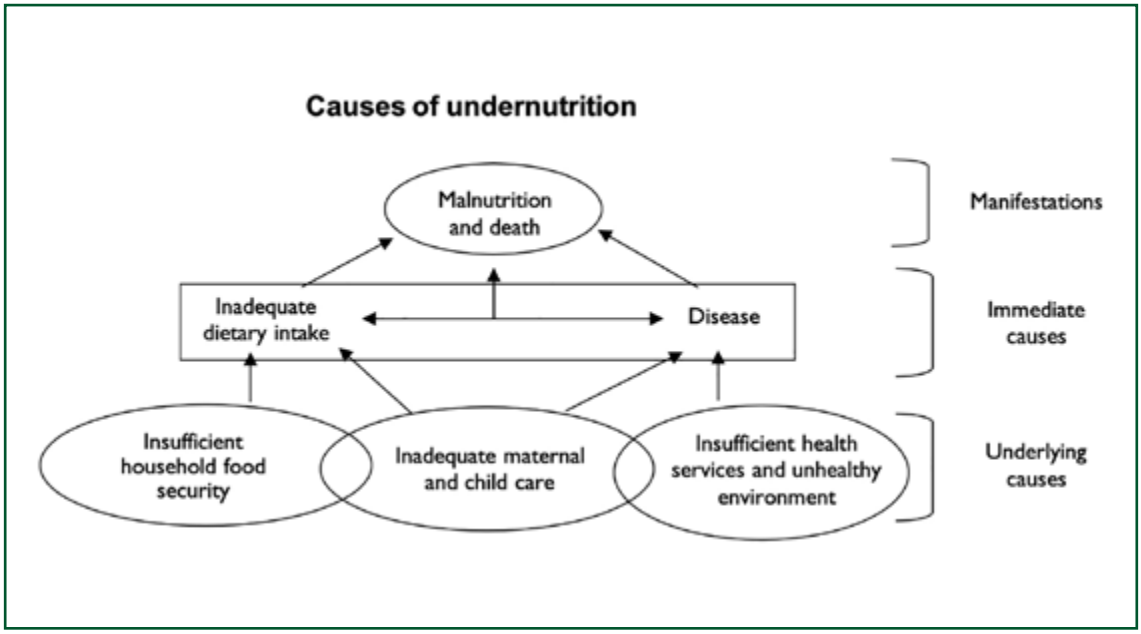
**Step 7:**

**Nurse:** *What do you think is the most important reason for Nalah's small size and tiredness?*
**Mrs Parab:** *Well, I thought she looked small but I did not know why. Maybe she needs more food. I wish that I could stay home and breastfeed more...*

**Nurse:** *Yes, that would be good if you can do it. From what you have said, it seems to me that Nalah may be growing slowly for a number of reasons, but most probably because she is not getting enough food. Please put her to the breast for a feed so we can see whether she attaches well, and let's speak more about the emptying of the breasts.*

## LISTENING AND LEARNING SKILLS

1. Use helpful non-verbal communication
2. Ask open questions
3. Use responses and gestures that show interest
4. Reflect back what the mother/caregiver says
5. Empathize – show that you understand how the mother/caregiver feels
6. Avoid using words that sound judging



# Notes

# Session 64

## Counselling a mother or caregiver whose child has undernutrition

### Objectives

After completing this, session participants will be able to:

- involve the mother or caregiver in identifying possible causes of undernutrition
- find age-appropriate advice for the problem identified
- set goals for improving the growth of an undernourished child
- provide examples of checking questions to use when counselling

### Introduction

In the previous session, we identified possible causes of Nalah's undernutrition, but what does the mother think? It is important to find out whether she recognizes the problem in the same way and then to find out what she can do to improve her child's growth. The goal set for improving the child's growth is jointly set by the mother or caregiver and the health worker.

### Counselling related to the causes of undernutrition

During the first part of the interview with the mother or other caregiver, you summarized the possible causes of the child's undernutrition and determined which causes seemed most applicable and important. Next, focusing on the main causes that the mother or caregiver recognizes as important, ask them: "What do you think that you can do to help the child, given these causes?".

Then discuss what is feasible to do and who can provide help and support. Acknowledge any difficulties in the caregiver's situation. Encourage them to take action.

Specific advice related to feeding is given on the right-hand side of the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION, next to the related questions. If you noted that a feeding practice differs from what is recommended, explain the recommended practice. Also commend the caregiver if they are following some of the recommendations.

If there are many causes of undernutrition, there may be much applicable advice, but the caregiver will only be able to remember a limited number of actions to take. Limit your advice to two or three actions that are most important and feasible.

A stunted child whose weight-for-length/height is within normal range needs a diet that will improve their growth in length/height, without excessive weight gain that could result in overweight or obesity. Rather than increasing their energy intake, a strategy for such children is to improve the amount and bioavailability of micronutrients in their diet, by increasing their consumption of animal-source foods.[1] Animal-source foods are high in micronutrients, and many minerals are better absorbed from meat than they are from plant-derived foods. Among vegetarian populations, or where access to a micronutrient-adequate diet is limited, strategies to improve micronutrient intake include using fortified foods and sprinkles or providing micronutrient supplements.

### Set a goal for improving growth

Since improvement in the child's growth may take some time, and the rate of improvement cannot be predicted, set goals for a few (two or three) actions that the caregiver can take towards improving the child's growth. Suggest actions that can be taken within a few weeks. You can praise and encourage the caregiver when they are accomplished. Make notes (e.g. in the GROWTH RECORD) of the underlying causes of undernutrition for discussion at follow-up visits, when goals may be set for additional actions to take.

[1] Allen LH, Gillespie SR. What works? A review of the efficacy and effectiveness of nutrition interventions., Manila: Asian Development Bank; 2001 (https://www.adb.org/sites/default/files/publication/27916/what-works-nutrition-interventions.pdf).

If the cause of the child's undernutrition is a recent illness, the goal is to return the child to their previous, normal growth line, in a reasonable amount of time, such as 3 months.

If there are other causes of the child's undernutrition, the first goal is to stop the trend towards undernutrition and eventually reverse the trend. Stress that the mother can help to achieve these goals by following the recommendations discussed.

Avoid setting any specific target for weight gain, especially for a stunted child. If the stunted child gains weight without increasing in length, they may become overweight. Express goals in terms of improving growth, so that the length and weight increase appropriately in relation to one another.

At the end of the discussion with the mother or other caregiver, it is important to set a reasonable time for the child's next visit and to set a general goal for improved growth. The next visit may be at the time that an immunization is required, or at another convenient time.

## Example

Hamid is 11 months old, weighs 8.0 kg and has a length of 74 cm. His length-for-age is just below the median, but his weight-for-age is below the –1 *z*-score line. Hamid's weight-for-length is on the –2 *z*-score line.

After discussing with Hamid's mother how to improve his feeding, the health-care provider suggests that Hamid returns in 1 month for another growth assessment. The goal is that Hamid will start gaining weight and avoid becoming wasted.

Script 2 continues the conversation between Nalah's mother and the nurse. Recall the SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT and consider which ones the nurse uses in her dialogue with Mrs Parab. The three main actions suggested are indicated by numbers to the left of the script.

### SCRIPT 2: CONCLUSION OF COUNSELLING SESSION WITH NALAH'S MOTHER

| | |
|---|---|
| **Nurse:** | *Nalah's breast attachment is very good. Well done. Now, whenever you breastfeed, leave her to empty each breast so that she gets the hindmilk, which has more fat than the foremilk. Let's talk now about how frequently you can feed her. You said that you would like to stay home and breastfeed more. Is there any way that you could do that?* |
| **Mrs Parab:** | *If my husband could get more work, I could stay home and breastfeed more.* |
| **Nurse:** ① | *That would be helpful to Nalah if you can do it. Let's talk about some more ways to help Nalah. Let's look in the GROWTH RECORD for the feeding recommendations for her age.* (The nurse opens the GROWTH RECORD to pages 16–17, to show the recommendations to Mrs Parab.)<br>*Since Nalah is now 6 months old, we need to follow the recommendations for infants who are 6 months to 1 year of age. You see that the first recommendation is to breastfeed as often as Nalah wants. Even if you cannot breastfeed more during the day, you could do it at night.*<br>*Nalah also needs a good soft staple food now that she is 6 months old. What kind of porridge is she eating at your neighbour's home?* |
| **Mrs Parab:** | *The porridge is made of maize meal.* |
| **Nurse:** ② | *That is a fine staple food. You need to feed Nalah thick porridge 2–3 times each day, about 2–3 tablespoons* (shows amount with her hands or a spoon); *if she is already taking more than this, do not reduce the amount.* |
| **Mrs Parab:** | *Should I give her any other foods?* |
| **Nurse:** ③ | *Yes, but start just one new food at a time to be sure that she can tolerate it. For example, you can start giving some mashed fruit, such as banana. Let's look at the list of some appropriate foods on page 15 of Nalah's GROWTH RECORD.*<br>*The porridge will give Nalah energy, but she needs a variety of other foods for their nutrients to help her grow. Just remember to introduce them one at a time.* |
| **Mrs Parab:** | *But I don't have all of these foods. Foods such as chicken and butter are too expensive.* |
| **Nurse:** | *You don't have to give those. Let's talk about what you do have. What animal-source foods can you give her?* |
| **Mrs Parab:** | *I can get eggs, and sometimes fish or a bit of meat.* |
| **Nurse:** | *That will do very well. Can you get leafy green and yellow-coloured vegetables and fruit?* |
| **Mrs Parab:** | *Yes. For vegetables I can get pumpkin and chard. And banana and papaya for fruit.* |

**Nurse:** *And do you have oil or fat that you could add a little to her food?*
**Mrs Parab:** *I have oil, but I think it causes constipation in babies.*

**Nurse:** *Oil should not cause constipation, but what it will do is to increase the energy in Nalah's food.*
**Mrs Parab:** *That all seems like too much food.*

**Nurse:** *Well, you will not give all of these foods every day. Remember, at first you will only give a small amount two or three times each day. And you will only introduce one new food every 3–4 days. Please tell me why you should introduce new foods one at a time.*
**Mrs Parab:** *To be sure that the new food does not make her sick.*

**Nurse:** *That's right.*
**Mrs Parab:** *What about breastfeeding? How long should I breastfeed?*

**Nurse:** *Keep breastfeeding as often as Nalah wants to, day and night for 2 years or more.*
**Mrs Parab:** *I hope that I can do that.*

**Nurse:** *I think that if you feed Nalah the way that we have discussed, she will be better nourished and more lively. The food will help her grow and develop more. Now, to review, please tell me how you will feed Nalah for the next month.*
**(checking question)**
**Mrs Parab:** *I will try to breastfeed more often.*

**Nurse:** *Good. What else?*
**Mrs Parab:** *I will give her porridge.*

**Nurse:** *OK. That's good. How much porridge and how often?*
**Mrs Parab:** *About this much* (shows with hands) *two or three times a day.*

**Nurse:** *Very good. And what other foods will you start giving, one at a time?*
**Mrs Parab:** *Mashed banana, papaya, pumpkin.*

**Nurse:** *What food will you give that comes from an animal?*
**Mrs Parab:** *Eggs, most likely.*

**Nurse:** *All of these foods will help Nalah grow. If you can feed her as we have agreed for 1 month, there should be a change in her health. Do you think that you could bring Nalah back next month?*
**Mrs Parab:** *Yes, I can bring her back.*

**Nurse:** *Good. We will weigh and measure her again. When she is getting enough food, you will see her being more active instead of lying still. We should also see her growing in length and weight. So, next month we will speak about her feeding needs at 7–8 months, and maybe also look for ways to prevent problems like the runny nose that you mentioned.*
**Mrs Parab:** *Okay, I will bring her back in one month.*

**Nurse:** *That's great. Let me write the date for that visit in her book. Of course, if Nalah gets sick or if you have any problems or questions, you can come sooner. I look forward to seeing you again.*
**Mrs Parab:** *Thank you.*

## SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT

1. Accept what a mother/caregiver thinks and feels
2. Recognize and praise what a mother/caregiver and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

# Notes

# Session 65

## Investigating causes and counselling a mother or caregiver whose child is overweight

### Objectives

After completing this session, participants will be able to:

- explain when to investigate causes of overweight
- identify the key sections of the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT
- identify the five steps involved in investigating causes of and counselling for overweight
- involve the mother in identifying possible causes of overweight
- set goals for improving the growth of a child who is overweight

### Introduction

As with problems of undernutrition, it is important to investigate the causes of overweight before giving advice to the mother or caregiver. Investigate the causes by interviewing the caregiver of any child who:

- is overweight (above 2 *z*-scores for weight-for-length/height)
- has a growth trend towards overweight (above 1 *z*-score for weight-for-length/height, with a trend towards the 2 *z*-score line).

A **stunted** child can be overweight or obese.

**Note:** Obese children (above 3 *z*-scores) need referral for medical assessment and specialized management. If there is a referral system for obese children, refer them. If not, interview the mother or caregiver about causes and counsel them as you would for a child who is overweight.

### Investigating causes of overweight

Use the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT provided with this course. The left-hand side of this Job aid lists questions to ask the caregiver. The right-hand side lists advice to be given, depending on the caregiver's answers. Some questions in the Job aid are used only for children in a specific age group, while others apply to all children.

To use the Job aid, first ask all of the relevant questions about causes. Give advice only after the investigation of causes is complete, so that you can tailor your advice to the most important causes.

To investigate the causes of overweight:

- ask all the relevant questions for the child's age
- listen carefully to the caregiver's answers
- ask follow-up questions as needed, to get complete information to understand the causes of the child's overweight
- note causes that are applicable for the child.

To identify the causes of overweight, you will ask the caregiver questions about the child's diet and frequency of feeding/eating. For older children, also ask about leisure activities (such as hours spent watching television) and their level of physical activity. Take care to ask these questions in a sensitive way that will not offend the caregiver or imply that they are at fault. If a child is being fed too much or too often, ask follow-up questions to determine why. Particularly in late infancy (age 6–12 months), a child may be overfed by parents who are anxious to keep up the child's weight. Knowing the reasons for overfeeding will help you express your advice in the most relevant way.

You may need to be particularly sensitive if the mother herself appears to be overweight. If one parent is obese, the child has a 40% probability of being overweight; if both parents are obese, the probability that the child will be overweight goes up to 70%. Although children do have a genetic tendency towards leanness or overweight, the causes of overweight are primarily factors such as family eating patterns and environment (for example, poor dietary habits, high consumption of energy-dense foods, and little physical activity). If parents have poor eating and activity habits, the child is likely to learn the same habits. During the interview about causes of overweight, focus on the child's eating and activity patterns rather than the parents'. However, realize that the parents may need to change some of their habits, in order to address the causes of the child's overweight.

When there are several possible causes, it is helpful to focus on the main ones that can be changed. After asking the questions in the interview, ask the caregiver for their opinion about the main causes of overweight, so that you know which causes they recognize. Then summarize what you see as the main causes.

## Steps in investigating causes of overweight

65/4

**JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT**

- **Step 1:** Initiate investigation of causes
- **Step 2:** Discuss age-specific questions about the child's feeding
- **Step 3:** Ask about physical activity (children aged over 6 months)
- **Step 4:** Jointly with the caregiver, identify causes
- **Step 5:** Counsel

Take time now to study the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT. Focus on the questions listed on the left-hand side. Remember that you will ask all of the relevant questions for the child's age, listen to the mother's or caregiver's replies, and determine the most important causes of overweight before giving advice.

## Dialogue with Toman's mother

The scripted interview follows the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT. The steps are labelled in the script. Preview the script as follows:

1. **Step 1:** First the nurse will explain the nutritional problem and the purpose of the interview to Mrs Baruni.
2. **Step 2:** Since Toman is exactly 2 years old, the nurse will start with the questions for a baby from 6 months to 2 years, to establish how Toman has been fed up to this point.
3. **Step 3:** The nurse will ask about physical activity.
4. This script will end with **Step 4**, identifying likely causes of overweight. The next demonstration script will deal with counselling to address these causes.

Toman is now 2 years old. He is the only child at home living with his mother. Mr and Mrs Baruni are separated, and Toman spends weekends with his father. Both parents are in good health; neither is known to be HIV positive. Mrs Baruni does not appear to be overweight.

Toman's growth has been charted in the BOY'S GROWTH RECORD. Because he is above the 2 z-score line in weight-for-height, the nurse is going to counsel his mother, Mrs Baruni, about growth and feeding. Before giving any advice, the nurse will interview Mrs Baruni about Toman's feeding and the home situation, in order to find out the possible causes of his overweight.

## Script 3: Dialogue with Toman's mother about the causes of overweight

**Step 1:** Toman is not currently ill and has no known chronic diseases.

| | |
|---|---|
| **Nurse:** | *Let's look together at Toman's* GROWTH RECORD. *Looking at his length-for-age, we see that he is a nice height, a bit taller than average for boys his age.*<br>*The other charts show that Toman is quite heavy for his height. What do you think? Would you agree that Toman is overweight?* |
| **Mrs Baruni:** | *I don't know. I think that he is a big, healthy boy. I never thought he was really overweight. Is this a problem?* |
| **Nurse:** | *It will be a problem if he continues gaining weight so fast. We need to slow down his weight gain until his height catches up. Do you mind if I ask you some questions about Toman's eating and his physical activity? Then we can both understand why he seems to be gaining weight faster than expected.* |
| **Mrs Baruni:** | *Alright.* |

**Step 2:**

| | |
|---|---|
| **Nurse:** | *Is Toman breastfed?* |
| **Mrs Baruni:** | *No, I stopped breastfeeding him when he was 3 months old.* |
| **Nurse:** | *Is he fed any milk formula or other milk?* |
| **Mrs Baruni:** | *He drinks lots of milk. He loves milk.* |
| **Nurse:** | *About how much milk does he drink each day?* |
| **Mrs Baruni:** | *Oh, probably a litre. He has a glass in the morning, then at about 10:00, and also with snacks. I also give him a bottle to help him go to sleep without crying at night.* |
| **Nurse:** | *How is the milk prepared? Is anything added to sweeten or thicken it?* |
| **Mrs Baruni:** | *Usually it's just fresh milk from a packet, but sometimes I warm it and add a bit of sugar or chocolate powder.* |
| **Nurse:** | *How many meals does he eat each day?* |
| **Mrs Baruni:** | *Three.* |
| **Nurse:** | *OK. About how much does he eat at each meal?* |
| **Mrs Baruni:** | *A small bowl full.* |
| **Nurse:** | *What type of bread does Toman eat?* |
| **Mrs Baruni:** | *He likes regular sliced bread, toast and sweet breads.* |
| **Nurse:** | *Does he eat cakes or other sweets?* |
| **Mrs Baruni** | *Well, he eats sweets like cookies and cake when he stays with his father and his father's mother over the weekend. My mother-in-law likes to bake and feed Toman sweets. She is a bit heavy herself.* |
| **Nurse:** | *Does Toman drink soft drinks?* |
| **Mrs Baruni** | *Yes, sometimes.* |
| **Nurse:** | *How often?* |
| **Mrs Baruni** | *At my mother-in-law's house he has soft drinks with his meals. I give him juice instead.* |
| **Nurse:** | *What about spreads on bread? Does Toman eat a lot of butter, margarine or sweet spreads on his bread?* |
| **Mrs Baruni** | *Oh yes, he loves chocolate and hazelnut spread.* |
| **Nurse:** | *Does he eat high-energy snacks like chips?* |
| **Mrs Baruni** | *No, I don't think so.* |
| **Nurse:** | *What about fried foods, such as deep-fried breads or meats, or French fries?* |
| **Mrs Baruni** | *I don't usually fry foods. I may add some oil when I cook, but not much.* |
| **Nurse:** | *Does he eat fatty meat?* |
| **Mrs Baruni** | *He likes meat, but I don't know whether the meat is fatty.* |

| | |
|---|---|
| **Nurse:** | *You said that Toman eats three meals each day. Does he also have snacks?* |
| **Mrs Baruni** | *Well, he eats breakfast, a snack around 10:00, lunch, a snack after his nap, then dinner, and finally his bottle of milk before bed. So I guess he eats about six times each day.* |
| **Nurse:** | *Do you think that Toman eats too much at meals?* |
| **Mrs Baruni** | *No, not really.* |
| **Nurse:** | *Besides the planned snacks, does Toman eat between meals?* |
| **Mrs Baruni** | *I don't think so, but I don't really know what happens at his grandmother's house.* |
| **Nurse:** | *Do you and Toman sit down at a table to eat?* |
| **Mrs Baruni** | *We try, but sometimes we may sit in front of the television to eat.* |

**Step 3:**

| | |
|---|---|
| **Nurse:** | *How many physically inactive hours does Toman spend each day, for example, watching the television?* |
| **Mrs Baruni** | *When he's at home with the babysitter while I am at work, he watches a lot of television.* |
| **Nurse:** | *How often is that?* |
| **Mrs Baruni** | *Five days each week while I am working.* |
| **Nurse:** | *When he is at his father's, what kind of meals does he have?* |
| **Mrs Baruni** | *Oh, at his father's he is sure to have fast foods. That's why they usually eat at his grandmother's.* |
| **Nurse:** | *Does Toman have many opportunities for active physical play?* |
| **Mrs Baruni** | *He really doesn't. The babysitter stays indoors with him.* |

**Step 4:**

| | |
|---|---|
| **Nurse:** | *What do you think could be the main reasons that Toman is overweight?* |
| **Mrs Baruni** | *You know, I think he's just a big boy like his father. He seems healthy to me, but maybe he needs to play outside and run around more.* |
| **Nurse:** | *I agree. From what you have told me, Toman's weight could be caused by a number of things, including lack of activity and food choices.* |

## Counselling related to the causes of overweight

During the first part of the interview with the mother or other caregiver, you found out about the possible causes of the child's overweight and asked which causes seemed most important. Next, focusing on the main causes that the mother or caregiver recognizes as important, ask: "What do you think that you can do to help the child, given these causes?".

Then discuss with them what is feasible to do and who can provide help and support. Acknowledge their situation and encourage them to take action.

Specific advice related to feeding and physical activity is given on the right-hand side of the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT, next to the related questions. If you noted that a feeding practice differs from what is recommended, explain the recommended practice. Also commend the caregiver if they are following some of the recommendations.

In your recommendations, include local examples of high-energy snacks to avoid and nutritious foods to provide. Describe specifically how to prepare foods using less fat and sugar. Also discuss feasible ways for the child to participate in active physical play. Encourage parents to find ways to increase the child's activity and reduce anxiety, insecurity or boredom, which are feelings that may lead to overeating.

Also encourage parents to adopt a healthy lifestyle, including healthy eating habits, physical activity, and positive interaction at family meals. The best way to influence children to have healthy lifestyles is for the parents to model the desired behaviours.

## Set a goal for improving the growth of an overweight child

Set goals for a few (two or three) actions that the caregiver can take towards improving the child's growth. These actions can be reviewed at the next visit. Encourage and praise the caregiver when the actions are accomplished. Make notes (e.g. in the GROWTH RECORD) of the underlying causes of overweight, for discussion at follow-up visits, when goals may be set for additional actions to take.

It is not recommended for an overweight child to try to lose weight, but instead they should decrease their rate of weight gain while growing in height.

Because one cannot predict the child's rate of growth, it is not possible to set a specific weight target for a certain time. Instead, discuss the importance of slowing the child's weight gain so that they eventually reach a more normal weight-for-height.

At the end of the discussion with the mother or other caregiver, it is important to set a reasonable time for the child's next visit and to set a general goal for improved growth. The next visit may be at the time that an immunization is required or at another convenient time.

The next script we are going to read covers Step 5 of the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT. The "nurse" will counsel Mrs Baruni, using relevant advice from the right-hand side of the Job aid. The three main actions suggested are indicated by numbers to the left of the script.

### SCRIPT 4: CONCLUSION OF COUNSELLING SESSION WITH TOMAN'S MOTHER

| | |
|---|---|
| **Nurse:** ① | *Your idea of taking Toman outside to play more is a good one. It will help him to have more physical activity. Can you ask the babysitter to take him outside to play?* |
| **Mrs Baruni:** | *Yes, I will ask her to do that.* |
| **Nurse:** | *On the weekends, is it possible that Toman's father would take him outside to a playground or to play ball?* |
| **Mrs Baruni:** | *I can explain to him that Toman is getting fat and ask him to do that. But I really do not have much control over what he does or eats with his father and grandmother. If I make a suggestion to her, she resents it.* |
| **Nurse:** ② | *I understand. Then let's discuss first what you can do in your own home. I suggest that you stop adding sugar or sweetened chocolate to Toman's milk. If you sweeten it, it is more fattening. Also, he is likely to drink more than he needs because it tastes so good.* |
| **Mrs Baruni:** | *He will not like the milk as much if I don't sweeten it.* |
| **Nurse:** ③ | *That is alright. He doesn't need so much milk as you are giving him. Half a litre each day is plenty. And if he is thirsty before bed, give him milk or water in a cup, not a bottle. He will drink more than he needs from a bottle, and it is bad for his teeth to fall asleep with a bottle.* |
| **Mrs Baruni:** | *I will never get him to sleep then.* |
| **Nurse:** | *It's alright to let him cry a bit as he falls asleep. He needs to be able to fall asleep without a bottle. It may help to rock him and sing to him. Besides, if he has been outside to play, he may be very tired and have no problem falling asleep.* |
| **Mrs Baruni:** | *I had not thought of that.* |
| **Nurse:** | *From what you have told me, there are more feeding changes that would be helpful, but for now let's focus on getting him out to play, reducing sugar in his diet, and decreasing the amount of milk given daily. How do you feel about trying these three things?* |
| **Mrs Baruni:** | *I am willing to try, but his grandmother will give him all the sweet foods he wants!* |
| **Nurse:** | *I understand the difficulty. Can you discuss the situation with your husband? Maybe he can help.* |
| **Mrs Baruni:** | *Not easily, but I could write a letter, or perhaps you could write a note or call him?* |
| **Nurse:** | *That is a good idea. I will call him. Please give me his phone number.* |
| **Mrs Baruni:** | *Yes, he may listen to you more than me.* |
| **Nurse: (checking question)** | *I will call him. If you make the feeding changes that we have agreed on, and if your husband and mother-in-law make some changes as well, it will be very good for Toman, especially if he also gets more physical activity. Now, just to review, let me ask you how you will reduce the amount of sugar that Toman is taking.* |

| | |
|---|---|
| **Mrs Baruni:** | *I will stop adding the sugar and chocolate to his milk.* |
| **Nurse:** | *And how will you reduce the total amount of milk that Toman drinks each day to about half a litre?* |
| **Mrs Baruni:** | *I will try to stop giving him the bottle at night.* |
| **Nurse:** | *And how will you increase his activity?* |
| **Mrs Baruni:** | *I will instruct the babysitter to take him outside to play.* |
| **Nurse:** | *That sounds great. We could weigh and measure Toman again in about 3 months to see his progress. Could you come back in 3 months?* |
| **Mrs Baruni:** | *Yes, I will do that.* |
| **Nurse:** | *Very well. At that time, we will speak about more ways to improve Toman's health. Let me write the date for his next visit in his* GROWTH RECORD. |
| **Mrs Baruni:** | *Could you tell me what Toman's father says after you speak with him?* |
| **Nurse:** | *Of course! I will give you a call.* |
| **Mrs Baruni:** | *Thank you.* |

## COUNSELLING SKILLS

### LISTENING AND LEARNING SKILLS

1. Use helpful non-verbal communication
2. Ask open questions
3. Use responses and gestures that show interest
4. Reflect back what the mother/caregiver says
5. Empathize – show that you understand how the mother/caregiver feels
6. Avoid using words that sound judging

### SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT

1. Accept what a mother/caregiver thinks and feels
2. Recognize and praise what a mother/caregiver and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

# Notes

# Notes (contd)

# Session 66

## Checking understanding and arranging follow-up 2

### Objectives

After completing this session, participants will be able to:

- demonstrate how to ensure that a caregiver understands information provided, by using checking questions
- arrange referral or follow-up of a child

### Introduction

In this session, we will review two further skills to help support caregivers: checking understanding and arranging follow-up.

### Checking understanding

Often you need to check a caregiver understands a practice or action they plan to carry out. Ask open questions to find out whether 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 whether the caregiver really understands.

Checking understanding also helps to summarize what you have talked about. The dialogues between the nurse and the mothers of Nalah and Toman in previous sessions illustrate how to check understanding.

### Arranging follow-up or referral

All children should receive regular 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 them for more specialized care.

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

If the child is malnourished or has inappropriate growth, ask the caregiver to visit the health facility at the time recommended according to the problem found.

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, general development and care.

The follow-up visits also give an opportunity to praise and reinforce practices, thus building the caregiver'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 follow up how the mother is coping with her own health and difficulties.

To conclude the counselling session with Mrs Parab, the nurse asked her to return in 1 month, while she asked Mrs Baruni to return in 3 months. The difference is determined by how soon it is possible to detect a difference in growth. Nalah, at age 6 months, should be growing rapidly, so it is possible to see an improvement in her growth status and activity levels within as little as 1 month if she receives appropriate feeding and care. Toman, who is overweight, needs to "decrease the rate of weight gain while growing in height" and this requires a longer time (at least 3 months) before a change in weight relative to height becomes measurable.

# Notes

# Session 67

## Gathering information and counselling on complementary feeding practices and growth: role-plays

### Objectives

After completing this session, participants will be able to gather information and provide counselling on complementary feeding practices and growth, by:

- demonstrating appropriate use of counselling skills
- investigating causes of growth problems
- providing appropriate counselling on the identified problem
- setting a target for growth to be reviewed at a follow-up visit
- using the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION and JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT
- using the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

### Introduction

In this session, you will use role-play to practise gathering information and providing counselling on complementary feeding practices.

### Practising gathering information on complementary feeding practices and growth

You will work in small groups, taking turns to be a "mother" a "health-care provider" or an observer. When you are the "mother", play the part of the story on your card. The "health-care provider" gathers information about your child's feeding. The other participant in the group observes.

You will need the following materials when you go to the small groups:

- JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION and JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT
- JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS
- BOY'S GROWTH RECORD and GIRL'S GROWTH RECORD
- notebook and pen or pencil for taking notes during the interview.

#### When you are the "health-care provider":

1. Study your "patient's" growth charts thoroughly and determine:
   a. whether the child is growing well or has a growth problem
   b. if they have a growth problem, whether it is undernutrition or overweight
   c. which of the three counselling Job aids you will use.
2. Greet the "mother" and introduce yourself. Ask for her name and her child's name, and use them.
3. Ask one or two open questions to start the conversation and to find out in general how the child is.
4. Explain to the mother the growth status of her child, using the points plotted on the three growth charts

5. Refer to the relevant Job aid as a guide for conducting the interview and counselling session with the mother.
6. If the child has no growth problem:
    a. 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 in the JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS as you listen
    b. think of suggestions you would make and Key messages to give to the mother.
7. If there is a growth problem:
    a. explain the growth problem to the mother. Then use the Job aid to investigate causes; it is helpful to take notes on the causes
    b. after discussing causes, work out with the mother what actions (2–3) to take. Use the GROWTH RECORD as a reference for giving feeding advice. Ask checking questions as needed.
8. Try to praise the things the mother is doing right.
9. Agree on a time that the mother and child will return for follow-up.

## When you are the "mother":

1. Study the background information presented about you and your child in the role-play situation in which you are the mother.
2. Respond to the "health-care provider's" questions realistically, as if you were the mother described. If necessary, you may make up additional information that is realistic and fits in with the story.
3. Answer the questions, but do not volunteer information unless the health-care provider asks for it. If your health-care provider uses good LISTENING AND LEARNING SKILLS, and makes you feel that they are interested, you can tell more.

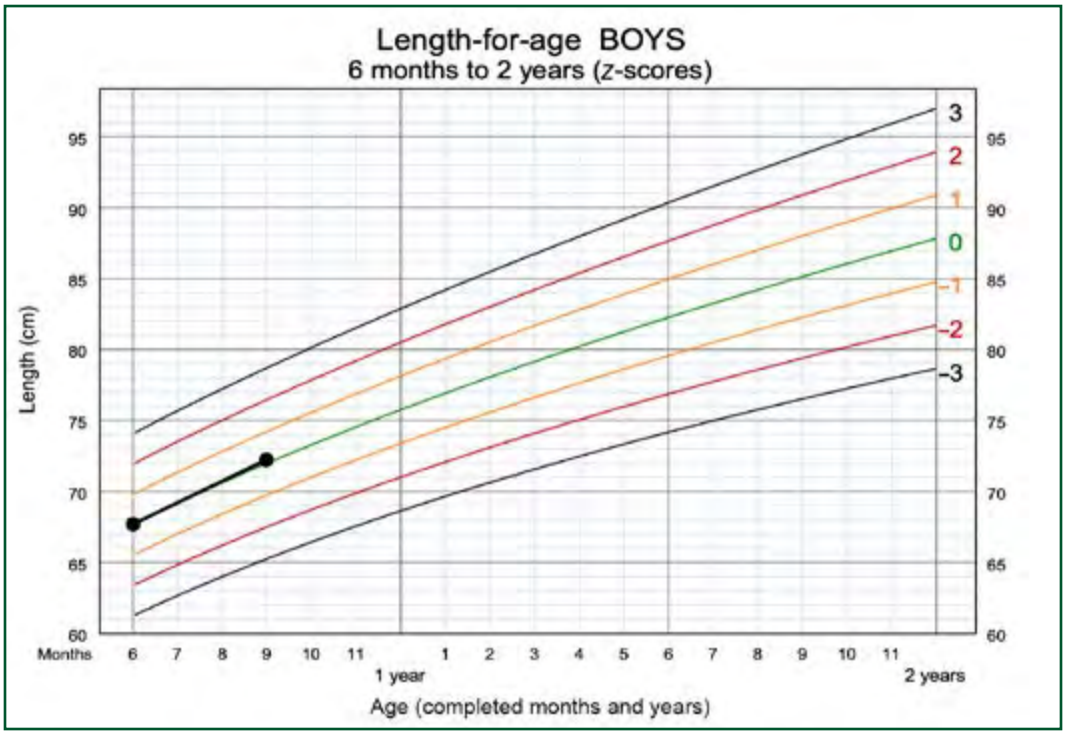
## When you are observing:

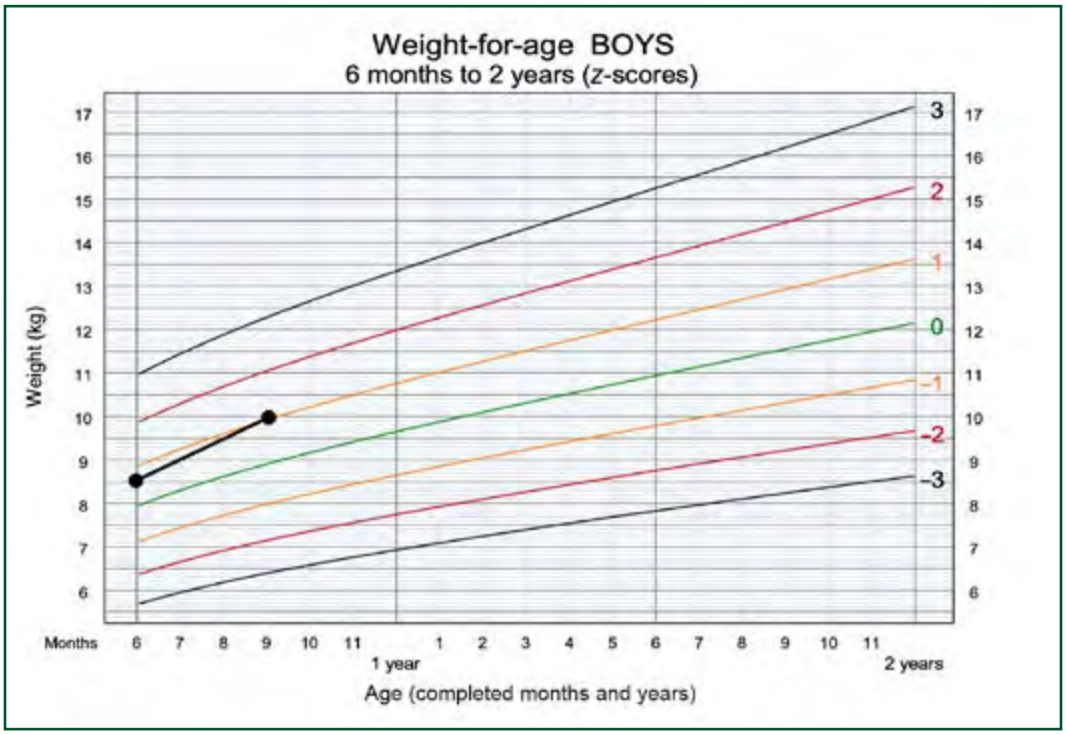
1. Study the background information on the mother and child and the growth charts shown on the following pages for the role-play situation that you will observe.
2. As the "health-care provider" interviews the "mother", follow the relevant Job aid.
3. Notice which counselling skills the health-care provider uses and which they do not use
4. After the role-play, be prepared to praise what the heath-care provider does right, and suggest what they could do better. Comment on whether:
    a. all of the relevant questions were asked
    b. the most important, relevant advice was given in an appropriate manner
    c. checking questions were asked to ensure that the mother understood what to do.
5. Ask the mother and then the health-care provider for their comments on the role-play, for example, what was done well, what was omitted or possible improvements.

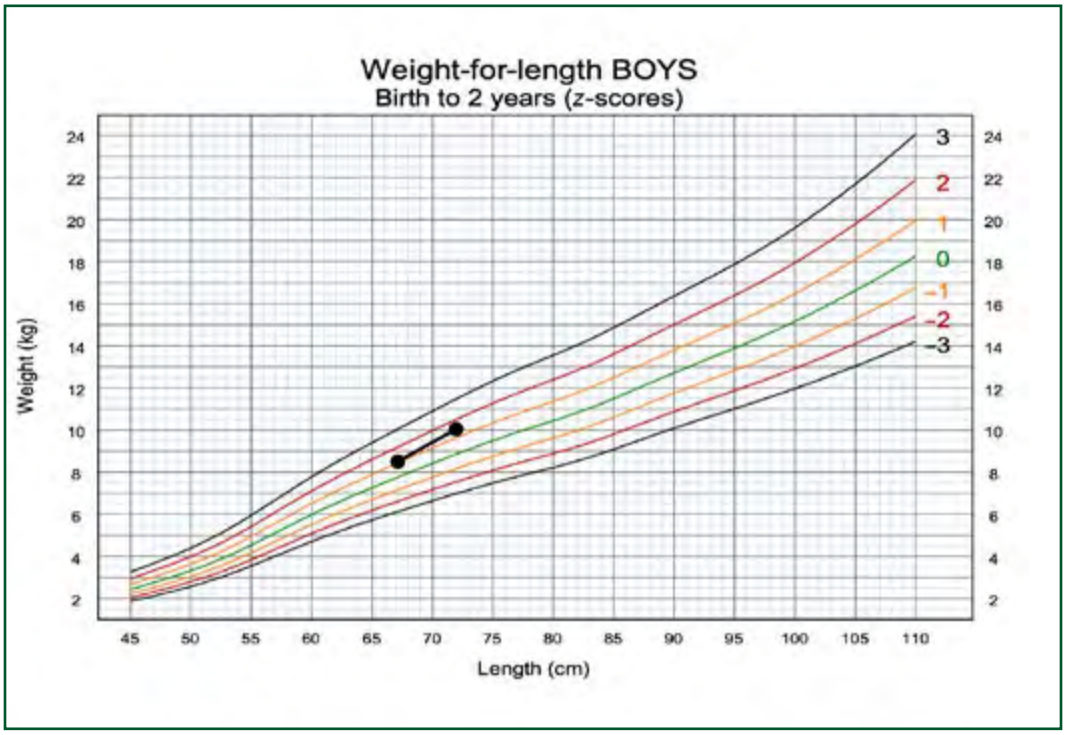
# Role-play situation 1: Mrs Khan and her son Veebol

Mrs Khan has a son named Veebol, who is 9 months old. He is still breastfed, but he also takes formula milk in a bottle occasionally. Mrs Khan stays home to care for her son while her husband travels as a bicycle salesman. Their home is comfortable and has many conveniences, including a television. There is plenty of money for food. Veebol takes about a cup of mashed foods (such as porridge or sweet potatoes) three or four times each day. Mrs Khan appears to be overweight, and her son's growth lines show a trend towards overweight, but Mrs Khan does not think that there is any problem. He is beginning to crawl but is carried around much of the time because his mother does not want him to get his hands dirty and put them into his mouth.

## Growth charts for Veebol



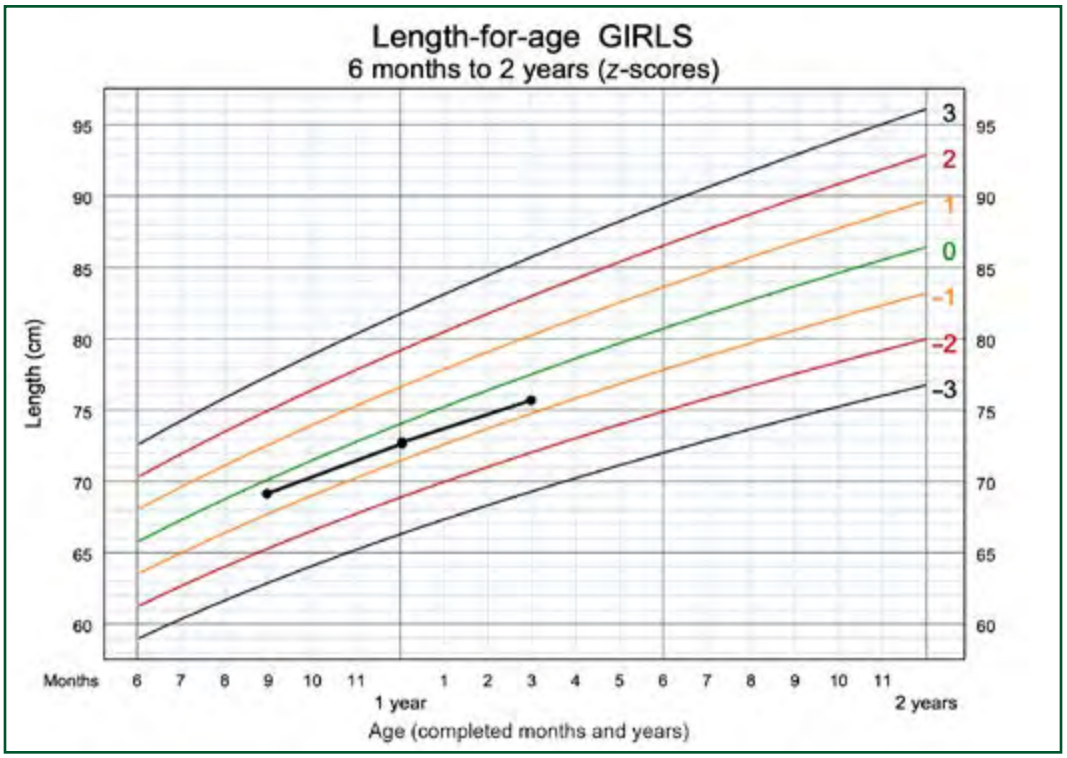



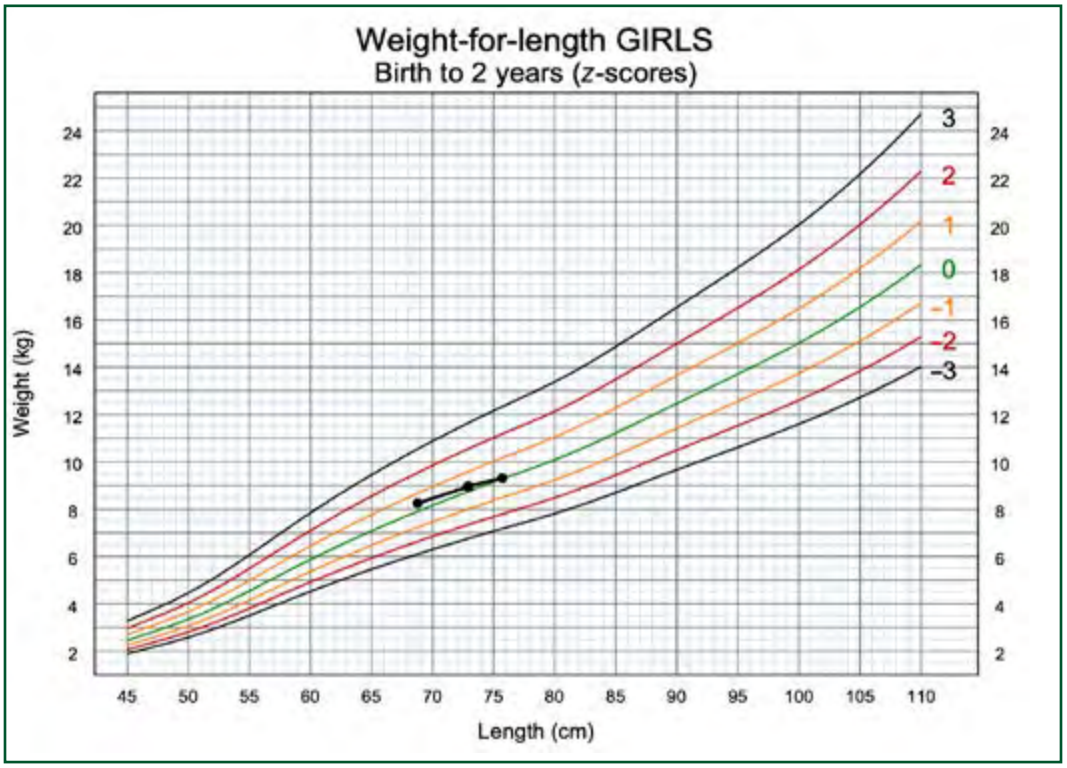

Weight-for-length BOYS
Birth to 2 years (z-scores)
Weight (kg)
Length (cm)
3
2
1
0
-1
-2
-3
24
22
20
18
16
14
12
10
8
6
4
2
45
50
55
60
65
70
75
80
85
90
95
100
105
110

# Role-play situation 2: Mrs Smith and her daughter Mary

Mrs Smith has a daughter Mary who is 15 months old. Her growth charts indicate that she is growing well. Her mother says that she breastfeeds frequently (she can't keep count of how many times in a day). The heath-care provider asks about Mary's complementary feeding (using the 24-hour recall method). Yesterday Mary had three meals and two snacks. She had ½ cup of mixed-cereal porridge in the morning and some bread and peanut butter at mid-morning. She had bean stew and a little rice for lunch, followed by a slice of mango. She did not have any snack in the afternoon but breastfed several times. For supper she ate steamed fish and greens. The health-care provider has measured Mary and plotted all measurements in her growth charts.

## Growth charts for Mary





Weight-for-length GIRLS
Birth to 2 years (z-scores)
Weight (kg)
Length (cm)
3
2
1
0
-1
-2
-3
2
4
6
8
10
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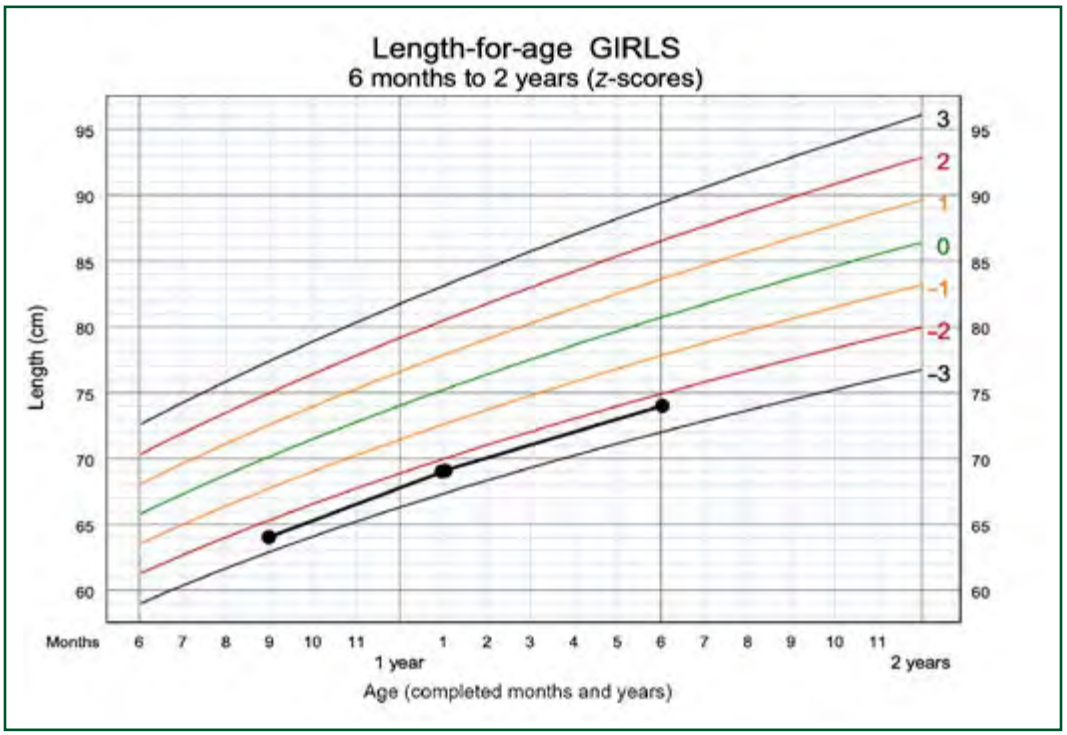
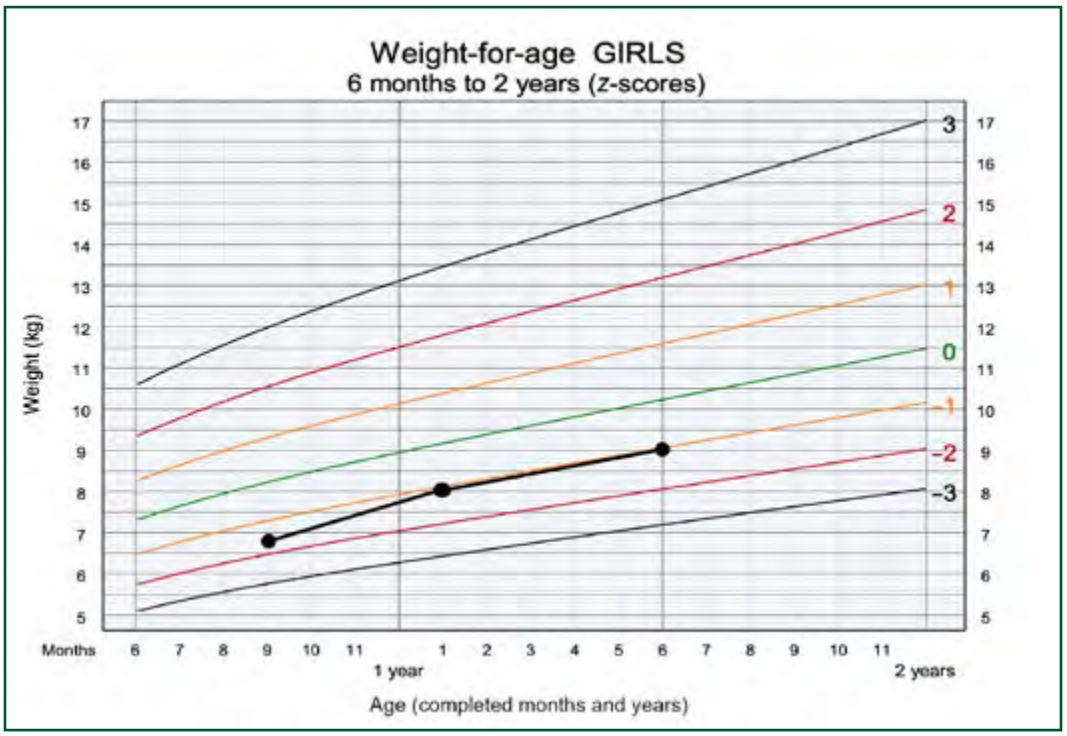
# Role-play situation 3: Mrs Lima and her daughter Anete

Mrs Lima is the mother of Anete, age 18 months, who seems happy and active. Anete is stunted but looks healthy. She is not breastfed. She does not like to eat and prefers to move around rather than sit still for meals. Although Mrs Lima tries to feed Anete three times each day, sometimes she will only take ¼ cup of food at a time. Anete's growth charts are shown below. Mrs Lima appears to be normal height. She does not have HIV. Her home is simple, but there is enough money for food.

## Growth charts for Anete




Weight-for-length GIRLS
Birth to 2 years (z-scores)
Weight (kg)
Length (cm)
3
2
1
0
-1
-2
-3
24
22
20
18
16
14
12
10
8
6
4
2
45
50
55
60
65
70
75
80
85
90
95
100
105
110

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

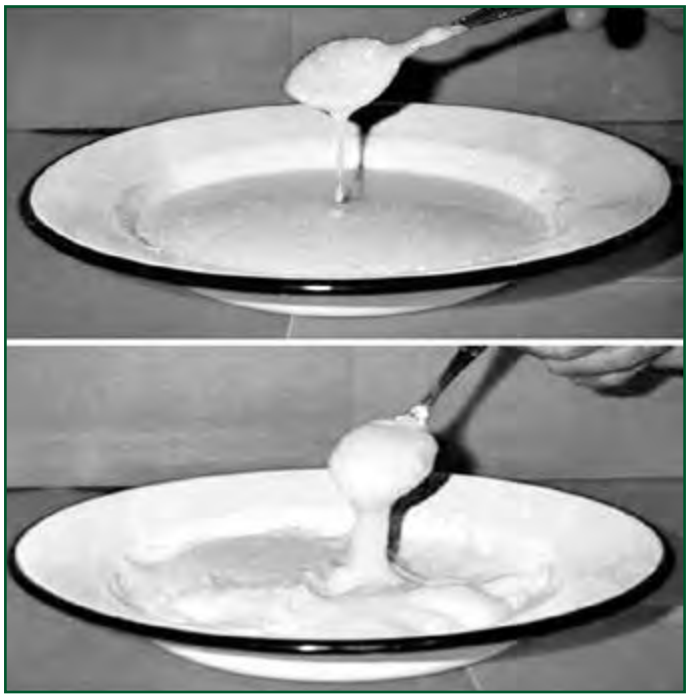
## Instructions for completing the Job aid: Food intake – 6 up to 24 months

1. Greet the mother/caregiver. 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/caregiver name), let us talk about what (child's name) ate yesterday.*
5. Continue with:
   *As we go through yesterday, tell me all (child's name) ate or drank, meals, other foods, water or breastfeeds.*
   *What was the first thing you gave (child's name) after he woke up yesterday?*
   *Did (child's name) eat or drink anything else at that time or breastfeed?*
6. If the caregiver mentions a preparation, such as a porridge or stew, ask them 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 caregiver, to help them remember all the food/drinks/breastfeeds that the child had.
9. Continue to remind the caregiver you are interested in what the child ate and drank yesterday (caregivers 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 Job aid: Food intake – 6 up to 24 months the practices that are present. If appropriate, show the caregiver the pictures of thin and thick consistency (for porridge and mixed foods). Ask them which drawing is most like the food they gave the child. Was it thick, did it stay on the spoon and hold a shape on the plate, or was it thin and did it flow off the spoon and not hold its shape on the plate?
12. Praise practices you wish to encourage. Offer two or three Key messages as needed and discuss how the caregiver 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 Job aid: Food intake – 6 up to 24 months when they are eating again.

## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

### Food consistency pictures



# Notes

# Notes (contd)

# Notes (contd)

# Session 68

## Clinical practice session 7: Listening and learning – measuring children

### Objectives

After completing this session, participants will be able to:

- demonstrate appropriate LISTENING AND LEARNING SKILLS when talking with a mother while measuring her child
- weigh children
- measure length
- measure height

### Preparation

You are going to practise using your LISTENING AND LEARNING SKILLS while weighing and measuring children and talking with their mothers.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups, and take turns to talk to a mother, while the others in your group observe.

#### What to take with you:

- One copy of the LISTENING AND LEARNING SKILLS CHECKLIST
- The WORKSHEET: MEASURING WEIGHT, LENGTH AND HEIGHT
- Pencil and paper to make notes

You do not need to take anything else – no books, manuals or handbags.

#### If you are the one who talks to the mother:

Introduce yourself to the mother, and ask permission to talk to her. Introduce your group, and explain that you are interested in measuring children to assess how they grow.

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 child. You can talk about ordinary life, not only the measuring of her child.

You will start by determining the child's date of birth, then age, etc. You should record the results on the WORKSHEET: MEASURING WEIGHT, LENGTH AND HEIGHT (page 509 of your *Participant's manual*).

If a mother is extremely heavy, you may need to ask a lighter adult to hold the child on a taring scale.

Check your measurement results by comparing with those of others who measured the same children. Consult with a facilitator if there are discrepancies that you cannot resolve.

Once you have finalized, thank the mother for her time and say something to praise and support her.

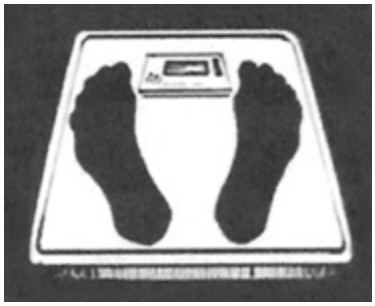
## If you are observing:

Stand quietly in the background. Try to be as still and quiet as possible. Do not comment or talk among yourselves.

Make 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, including non-verbal communication. Mark a tick on your LISTENING AND LEARNING SKILLS CHECKLIST when they use a skill, to help you to remember for the discussion. Notice if they make a mistake, for example if they use a judging word, or if they ask a lot of questions to which the mother says "yes" or "no".

# Clinical practice session 7



## Worksheet: Measuring weight, length and height

This will be a practical exercise in a clinic setting, or in the classroom if children and measuring equipment can be brought there. The mothers should be present, if possible, to tell the children's dates of birth and to assist with measuring and reassuring them.

Your facilitator will assign you to work in pairs. Each pair should do the following steps for at least two children, one who is less than 2 years old and one who is 2–5 years old.

Review records or ask the mother to determine the child's name, sex and date of birth. Record this information in the inset box below on the left. Use the Child age calculator to determine the child's age today. Make a visual assessment of the child (e.g. does the child appear thin, fat, active, lethargic)?

- Observe the child for signs of marasmus or kwashiorkor. If there is any apparent oedema, test for oedema of both feet.
- Weigh the child.
- Measure the child's length or height. } Each person take a turn
- Record results on the Visit notes page below.

## Visit notes

| | Date | Age today (completed years/ months or weeks) | Measurements (record below; then plot on charts) | | Reason for visit, observations, recommendations |
|---|---|---|---|---|---|
| | | | Weight (kg) | Length/ height (cm) | |
| Child 1:<br>Sex:<br>DOB: | | | | | |
| Child 2:<br>Sex:<br>DOB: | | | | | |
| Child 3:<br>Sex:<br>DOB | | | | | |
| Child 4:<br>Sex:<br>DOB: | | | | | |

## LISTENING AND LEARNING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

**Use LISTENING AND LEARNING SKILLS:**

- ☐ Keep the head level with mother/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove physical barriers (tables and notes)?
- ☐ Take time/allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

# Notes

# Session 69

## Clinical practice session 8: Gathering information and counselling on complementary feeding practices and growth

### Objectives

After completing this session, participants will be able to:

- measure a child and correctly determine whether they are growing normally or have a problem
- inform the mother about growth assessment results and identify possible causes of growth problems
- provide counselling to a mother whose child has undernutrition or overweight
- demonstrate how to gather information about complementary feeding using counselling skills and the Job aid: Food Intake – 6 up to 24 Months
- provide information about complementary feeding and continuing breastfeeding to a mother of a child aged 6 up to 24 months

### Preparation

You will practise using your counselling skills while weighing and measuring children and talking with their mothers.

These notes are a summary of the instructions that the trainer will give you about how to do the clinical practice session. Try to make time to read them, to remind you about what to do during the session.

During the clinical practice session, you will work in small groups of 2–4 and take turns to talk to a mother while the others in your group observe.

#### What to take with you:

- Your Child age calculator
- The Reference tool: Food intake – 6 up to 24 months
- Two copies of the Counselling skills checklist
- Two copies of the Job aid: Food intake – 6 up to 24 months and Food consistency pictures
- The Job aid: Investigating causes of undernutrition and the Job aid: Investigating causes of overweight
- One copy of the Boy's growth record and one copy of the Girl's growth record
- A common bowl used to feed a young child – one between each pair of participants
- One set of Counselling cards, and the *Guidance on the use of counselling cards*
- Pencil and paper

You do not need to take anything else – no books, manuals or handbags.

## What to do:

You will measure the child, as you have done during previous clinical practice session. It will not be necessary to start Growth records for the children seen at the clinic. Note each child's age and measurements on a notepad. Plot the child's measurements on the appropriate pages of a Growth record (in pencil, so that you can erase them later). Then use those pages for interpretation and conversation with the mother.

In the case of children aged 6 up to 24 months with appropriate growth, one participant talks with the mother, filling in the Job aid: Food Intake – 6 up to 24 months at the same time. The others in the group observe and fill in the Counselling skills checklist.

If you meet a child who is ill or has a major feeding difficulty, encourage the mother to bring the child to the local health centre. Do not offer suggestions for treatment of an ill child.

In the case of children aged 6 up to 24 months with a growth problem, use the Job aid: Investigating causes of undernutrition or the Job aid: Investigating causes of overweight, as appropriate.

For all children aged 2 years or older, use the growth charts and the Job aid: Investigating causes of undernutrition or the Job aid: Investigating causes of overweight, as appropriate.

1. After measuring and plotting, show and explain the meaning of the charts to the mother or caregiver.
2. If the child is growing well, let the mother know and congratulate her. Then review the feeding recommendations for the child's present age or the one approaching. Thank the mother and let her go.
3. If there is a growth problem, determine whether the mother recognizes it, as this will influence how the dialogue continues.
4. Follow the steps in the relevant job aid: the Job aid: Investigating causes of undernutrition or the Job aid: Investigating causes of overweight.
5. Ask the mother what she thinks are the most common causes of her child's growth problem.
6. Counsel: suggest two or three actions only for the mother to take (do not forget to praise the mother for things she is doing correctly!)
7. Ask checking questions.
8. Speak to a staff member of the facility if you have proposed a return visit for follow-up. Thank the mother and let her go.

## When you talk with a mother:

Introduce yourself to the mother and ask permission to talk with her. Introduce the others in your group and explain you are interested in learning about feeding young children in general. You may wish to say you are on a course.

Measure the child, with the mother's help.

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 Job aid: Food intake – 6 up to 24 months, Job aid: Investigating causes of undernutrition or the Job aid: Investigating causes of overweight, as appropriate.

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 Job aid: Food intake – 6 up to 24 months as you listen and learn from the mother.

Use the information you have gathered and then:

- try to praise 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 you are the observer:

Mark a tick on the COUNSELLING SKILLS CHECKLIST for every skill that you observe the "counsellor" 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 observer does not ask the mother any questions.

Remember to use your counselling skills when giving feedback to the participant who was doing the counselling.

Notice other feeding practices in the area, such as:

- whether children are given any food or drinks while waiting
- whether children are given a bottle or soother/pacifier while waiting
- general interaction between mothers and children
- any posters or other information on feeding in the area.

## Reference tool: Food intake – 6 up to 24 months

| Feeding practice | Ideal feeding practice | Key messages to help counsel mothers |
|---|---|---|
| Growth appropriate? | | *Look at the shape of the growth curve of the child: is the child growing?* |
| Child received breast milk? | Yes | Breastfeeding for 2 years or longer helps a child to develop and grow strong and healthy |
| How many meals of a thick consistency did the child eat yesterday? (use Food consistency pictures as needed) | 3 meals | Foods that are thick enough to stay on the spoon give more energy to the child |
| Child ate an animal-source food yesterday (meat/fish/offal/bird/eggs)? | Animal-source foods should be eaten daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| Child ate a dairy product yesterday? | Try to give dairy products daily | Animal-source foods are especially good for children, to help them grow strong and lively |
| 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 | Peas, beans, lentils, nuts and seeds are good for children |
| 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 |
| Child ate sufficient number of meals and snacks yesterday, for their age? | Child 6–8 months: 2–3 meals plus 1–2 snacks if hungry<br>Child 9–24 months: 3–4 meals plus 1–2 snacks if hungry | A growing child needs 2–4 meals a day, plus 1–2 snacks if hungry: give a variety of foods |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | Child 6–8 months: gradually increased to approx. ½ cup at each meal<br>Child 9–11 months: approx. ½ cup at each meal<br>Child 12–24 months: approx. ¾–1 cup at each meal | A growing child needs increasing amounts of food |
| Caregiver 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 | *Explain how to use vitamin and mineral supplements if they are needed* |
| 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 provide extra food after illness to help them recover quickly |

Enter a ✓ in the Yes column if the practice is in place.

Enter your initials if a message is given (see REFERENCE TOOL: FOOD INTAKE – 6 UP TO 24 MONTHS for the message).

## JOB AID: FOOD INTAKE – 6 UP TO 24 MONTHS

**Child's name:**

**Date of birth:** **Age of child at visit:**

| Feeding practice | Yes / number where relevant | Key message given |
|---|---|---|
| Growth appropriate? | | |
| Child received breast milk? | | |
| How many meals of a thick consistency did the child eat yesterday? (use FOOD CONSISTENCY PICTURES 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 their age? | | |
| Quantity of food eaten at main meal yesterday appropriate for child's age? | | |
| Caregiver assisted the child at mealtimes? | | |
| Child took any vitamin or mineral supplements? | | |
| Child ill or recovering from an illness? | | |

## Food consistency pictures

## COUNSELLING SKILLS CHECKLIST

**Name of counsellor:**

**Name of observer:**

**Date of visit:**

*(✓ for Yes and X for No)*

### Did the counsellor:

#### Use LISTENING AND LEARNING SKILLS:

- ☐ Keep the head level with mother/parent/caregiver?
- ☐ Pay attention (eye contact)?
- ☐ Remove barriers (tables and notes)?
- ☐ Take time? Allow the mother/caregiver time to talk?
- ☐ Use appropriate touch?
- ☐ Ask open questions?
- ☐ Use responses and gestures that showed interest?
- ☐ Reflect back what the mother/caregiver said?
- ☐ Empathize – showing that he or she understood how the mother/caregiver feels?
- ☐ Avoid using words that sound judging?

#### Use SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT:

- ☐ Accept what the mother/caregiver thinks and feels?
- ☐ Recognize and praise what the mother/caregiver and baby are doing right?
- ☐ Give practical help?
- ☐ Give a little, relevant information?
- ☐ Use simple language?
- ☐ Make one or two suggestions, not commands?

# Notes

# Notes (contd)

# Session 70

## Growth charts

### Objectives

After completing this session, participants will be able to:

- explain the meaning of the standard curves
- plot a child's weight and length on a growth chart
- interpret individual growth curves and define whether a child is growing well or has malnutrition

### Introduction

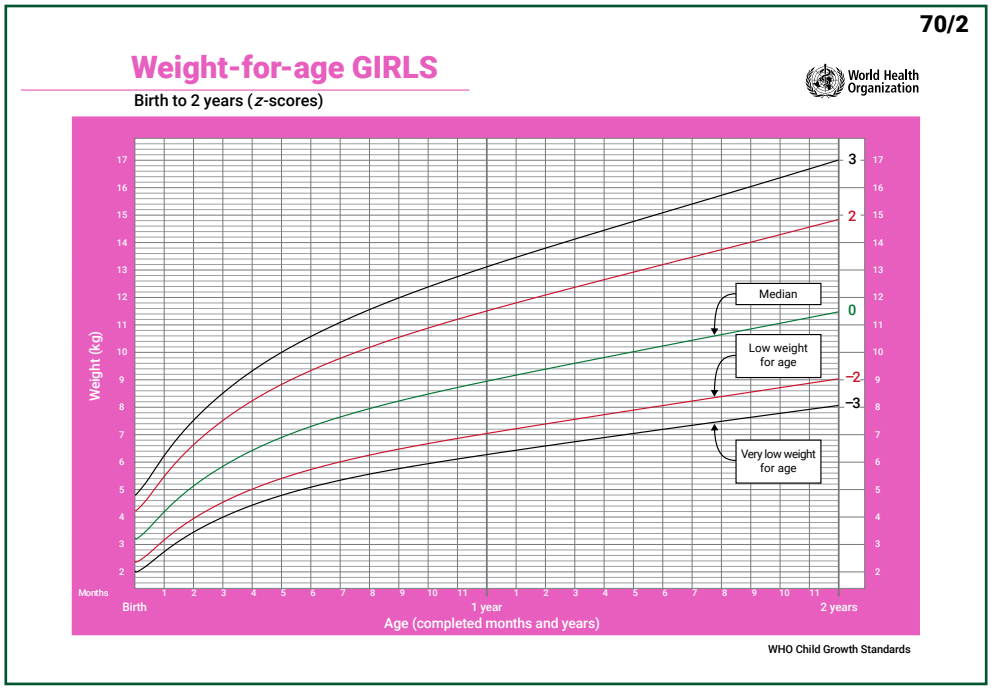
When counselling on infant feeding, it is important to understand growth charts. If growth charts are not interpreted accurately, incorrect information can be given to a caregiver, leading to worry and loss of confidence.

Growth charts can reflect past and present conditions, including food intake and health status. As well as weight, another measurement you may use is length or height. 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.

A shorter child weighs less than a taller child of the same age and so they may be on different lines on the growth chart for weight. This is normal. What is most important is to see that the curve follows a trend that indicates the child is growing normally and there is no risk of a growth problem.

Good feeding practices, both before the child is 6 months old and after complementary feeds have been introduced, can help prevent the growth faltering in both weight and length, as well as any tendency to overweight.

### Growth charts in assessment of feeding practices



This is a common weight chart for girls. The child's age in months is along the bottom and the weight is up the side.

There are five curves on this chart. The line labelled 0 is the median, which is, generally speaking, the average. It is also called the 50th percentile because the weights of 50% of healthy children are below it and 50% are above it. Most healthy children are near this median curve, either a little above or a little below it.

The other lines, called *z*-score lines, indicate distance from the average. A point or trend that is far from the median, such as 3 or −3, usually indicates a growth problem. The growth curve of a normally growing child will usually follow a track that is roughly parallel to the median. The track may be above or below the median.

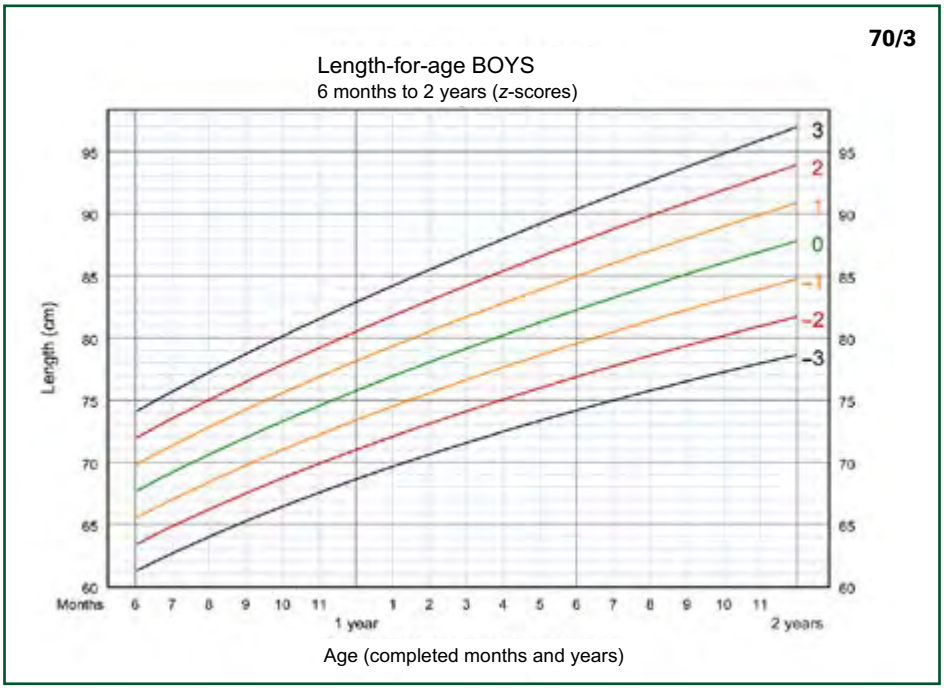
A child whose weight-for-age is below the −2 *z*-score line (fourth line from the top) is underweight. A genetically or naturally small child may be near this curve but still be growing well. The bottom line (−3) indicates very low weight-for-age or severe underweight. A child near this line is probably not healthy and needs attention.

In some places, the charts have a different number of lines on them or use colour bands to show the ranges, or sometimes there is one chart for both boys and girls. Check your local growth charts.

One weight on its own does not give you much information. You need a pattern of marks before you can judge the tendency of growth.

A flat line indicates that the child is not growing. This is called **stagnation** and may also need to be investigated.

A growth curve that crosses a *z*-score line may indicate risk.




Length/height-for-age reflects attained growth in length or height at the child's age at a given visit. This indicator can help identify children who are stunted (short) due to prolonged undernutrition or repeated illness. Children who are tall for their age can also be identified, but tallness is rarely a problem unless it is excessive and may reflect uncommon endocrine disorders.

In the chart shown above, the *x*-axis shows age, and the *y*-axis shows length in centimetres. Age is plotted in completed weeks from birth until age 3 months; in completed months from 3 to 12 months; and then in completed years and months.

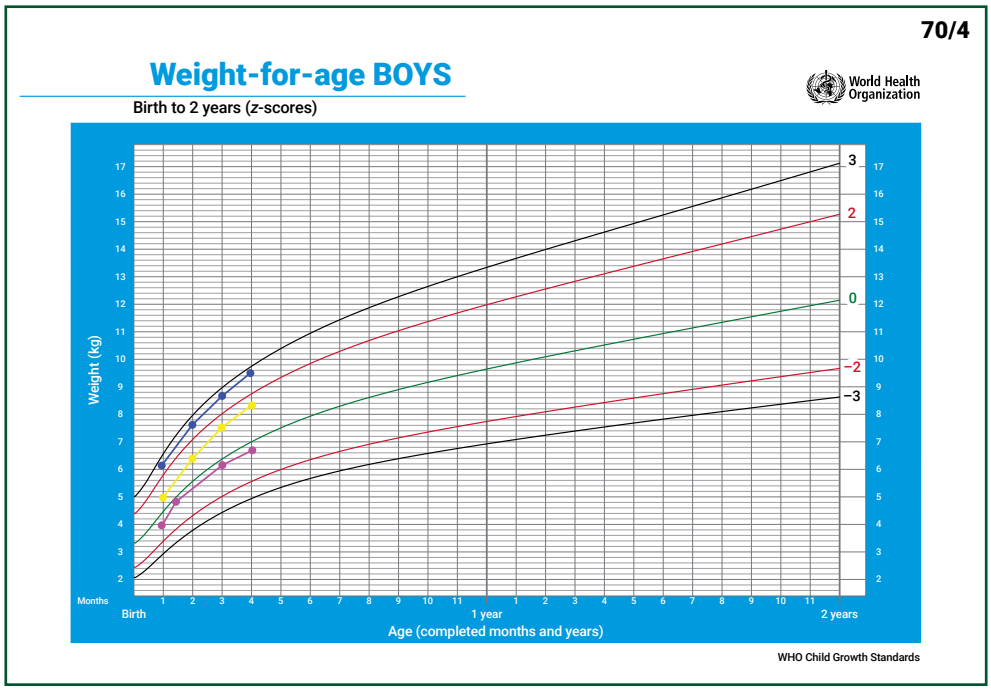
To plot length/height-for-age following the convention of this course, plot completed weeks, months, or years and months on a vertical line (not between vertical lines). For example, if a child is 5½ months old, the point will be plotted on the line for 5 months (not between the lines for 5 and 6 months). Plot length or height on or between the horizontal lines as precisely as possible. For example, if the measurement is 60.5 cm, plot the point midway between the horizontal lines 60 cm and 61 cm.

To plot weight-for age, use the same convention to plot completed weeks, months, or years and months on a vertical line (not between vertical lines). Plot weight on a horizontal line or in the space between lines, to show weight measurements to 0.1 kg, e.g. 7.8 kg.

When points are plotted for two or more visits, connect adjacent points with a straight line, to better observe the trend.

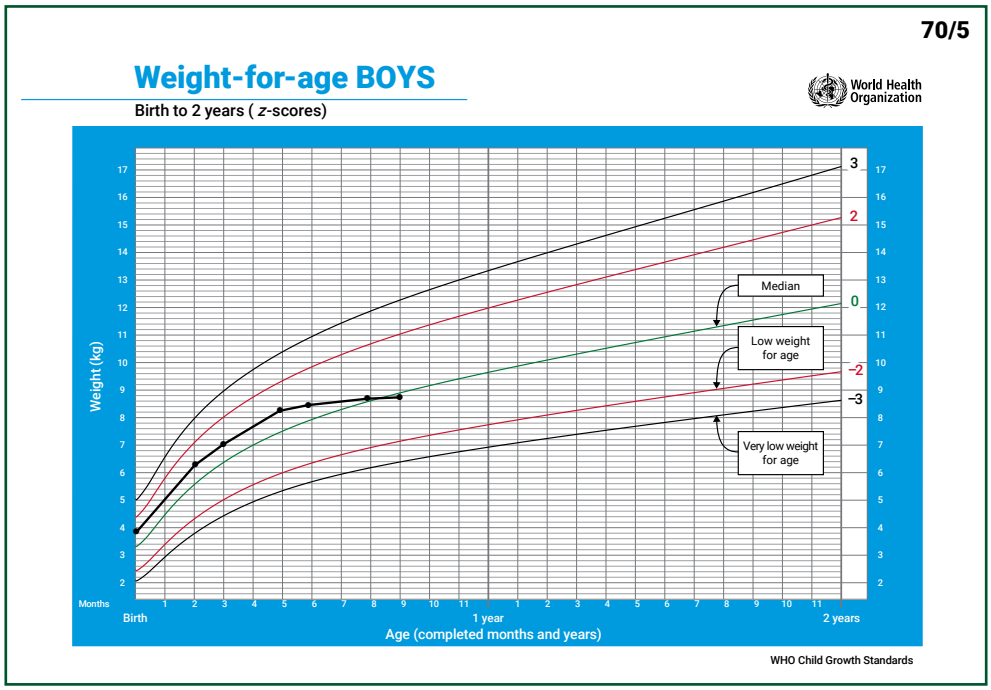
Judge whether a plotted point seems sensible, and if necessary, re-measure or re-weigh the child. For example, a baby's length should not be shorter than at the previous visit. If it is, one of the measurements was wrong.

Here we have the growth chart for boys that shows the curves of three children who were weighed regularly up to 4 months of age.




The growth lines on the chart show a similar shape to the standard curves. However, each child is growing along his individual path. Notice that they all had different birth weights from the beginning.

Here we have the growth chart of Manuel, aged 9 months, who has been weighed regularly.



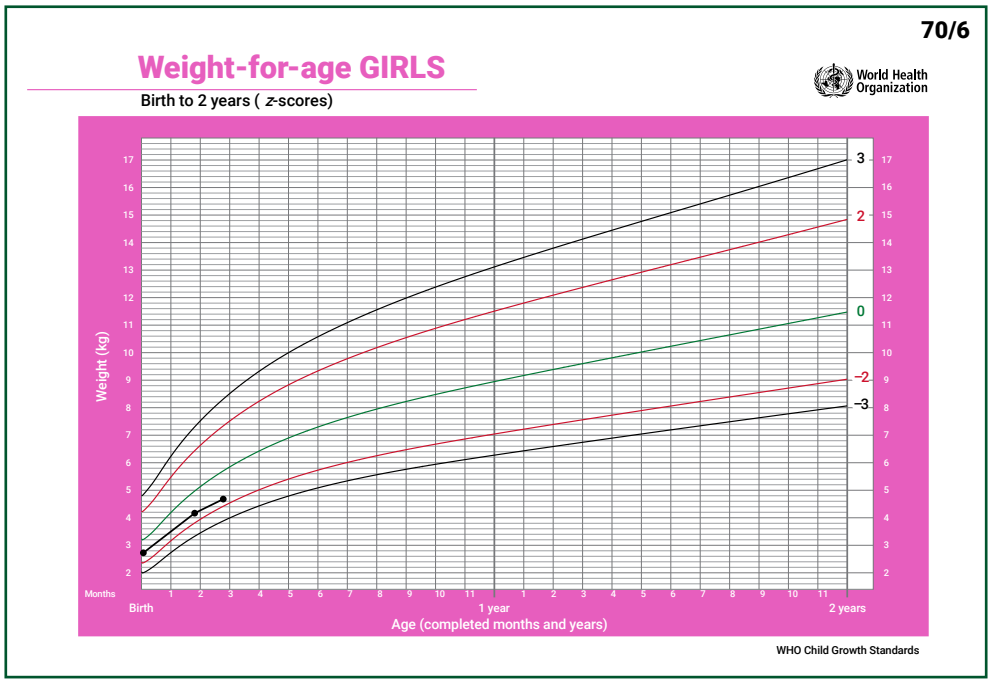

Manuel grew well for the first few months but has not grown at all in the last 3 months. His weight is now static. You would need to ask the mother some questions.

Some questions you might ask are:

- *How was Manuel fed for the first 6 months of life?*
- *What milk does Manuel have now?*
- *What feeds does Manuel receive now? How often does he eat? How much does he eat? What types of food does he eat?*
- *How has Manuel's health been over the past few months?*

You find out that Manuel was exclusively breastfed for the first 6 months of life and that his mother is still breastfeeding him frequently by day, and that he sleeps with his mother at night and breastfeeds during the night. At 6 months, his mother started to give him thin cereal porridge twice a day. He is not gaining weight because he needs more frequent, nutrient-rich complementary foods each day.

Here we have the growth chart of Ana, aged 3 months, who has attended the clinic regularly.




This child is growing slowly. You would need to ask the mother some questions to find out how Ana is being fed.

Some questions you might ask are:

- *How is Ana?*
- *How is Ana feeding?*
- *How often does Ana feed?*
- *Where does Ana sleep?*
- If the mother says she is breastfeeding – *How is breastfeeding going for you and Ana?*

You would want to assess a breastfeed, looking at positioning, attachment and the length of feed.

Her mother tells you that Ana is well and a good baby who cries little. She only wants to feed four or five times each day, which her mother finds helpful, as she is busy during the day. Ana sleeps with her mother at night. Ana is gaining weight slowly because she is not breastfeeding often enough.

## Growth problems

Following the growth of a child helps us to prevent growth problems.

You can compare the points plotted on the child's growth charts with the *z*-score lines, to determine whether they indicate a growth problem. Measurements in the shaded boxes are in the normal range.

# Growth problems

## Growth problems chart

Compare the points plotted on the child's growth charts with the *z*-score lines, to determine whether they indicate a growth problem. Measurements in the shaded boxes are in the normal range.

| *z*-score[a] | Growth indicators | | | |
|---|---|---|---|---|
| | Length/ height-for-age | Weight-for-age | Weight-for-length/height | BMI-for-age |
| Above 3 | See note 1 | See note 2 | Obese | Obese |
| Above 2 | | | Overweight | Overweight |
| Above 1 | | | Possible risk of overweight (see note 3) | Possible risk of overweight (see note 3) |
| 0 (median) | | | | |
| Below −1 | | | | |
| Below −2 | Stunted (see note 4) | Underweight | Wasted | Wasted |
| Below −3 | Severely stunted (see note 4) | Severely underweight (see note 5) | Severely wasted | Severely wasted |

BMI: body mass index.
[a]The *z*-score label in this column refers to a range. For example "above 2" means 2.1 to 3.0; "median" includes −1.1 to 1.0; "below −2" refers to −2.1 to −3.0, etc.

### Notes:

1. A child in this range is very tall. Tallness is rarely a problem, unless it is so excessive that it may indicate an endocrine disorder such as a growth-hormone-producing tumour. Refer a child in this range for assessment if you suspect an endocrine disorder (e.g. if parents of normal height have a child who is excessively tall for their age).
2. A child whose weight-for-age falls in this range may have a growth problem, but this is better assessed from weight-for-length/height or BMI-for-age.
3. A plotted point above 1 shows possible risk. A trend towards the 2 *z*-score line shows definite risk.
4. It is possible for a stunted or severely stunted child to become overweight.
5. This is referred to as very low weight in Integrated Management of Childhood Illness training modules; see IMCI in-service training. Geneva: World Health Organization; 1997 (WHO/CHD/97.3.K; https://www.who.int/publications/m/item/WHO-CHD-97.3.K).

# Notes

# MODULE 7

## HIV and infant feeding

# Session 71

## Overview of HIV and infant feeding 1

## Objectives

After completing this session, participants will be able to:

- explain the risk of mother-to-child transmission of HIV
- describe factors that influence mother-to-child transmission of HIV
- describe the key principles and recommendations for infant feeding in the context of HIV
- describe the importance of antiretroviral drugs in reducing mother-to-child transmission of HIV and increasing HIV-free survival in infants

## Introduction

HIV is a devastating infection, which touches many aspects of our lives. It affects people of all ages, the rich and the poor, and all sectors of society, and is still a major cause of mortality. It is a worldwide challenge, affecting some countries far more than others.

HIV can be passed from a mother to her baby during pregnancy, labour and delivery and during breastfeeding. Antiretroviral (ARV) drugs reduce mother-to-child-transmission of HIV, and increase the HIV-free survival of babies. Breastfeeding prevents babies dying from common causes and is recommended as a principal feeding option combined with ARV drugs for mothers living with HIV.

Updated global recommendations on the use of ARV drugs for treating and preventing HIV infection have important implications for infant feeding recommendations. The World Health Organization (WHO) now recommends lifelong antiretroviral therapy (ART) for everyone from the time when any adult (including pregnant and breastfeeding women) or child is first diagnosed with HIV infection. This has affected the role of health workers and infant feeding counsellors in providing information and support to pregnant and breastfeeding women living with HIV and their babies.

71/2

### Defining HIV and AIDS

HIV

- **Human immunodeficiency** virus is the virus that causes AIDS

AIDS

- **Acquired immunodeficiency syndrome** is the condition that follows the earlier, non-symptomatic state of being HIV infected, when the immune system is weakened and people with the infection develop signs and symptoms

Individuals who are infected with HIV feel well at first and usually do not know they are infected. During this time, the body produces antibodies and other specialized immune cells, such as CD4 cells, that fight HIV. For several years, CD4 cells are able to keep the virus under control in a person's body and they remain healthy. However, eventually the HIV virus controls and destroys these immune cells.

When this happens, the body becomes less able to fight other types of infections such as pneumonia, diarrhoea, tuberculosis (TB) and meningitis. When a person can no longer fight these infections and becomes very ill and loses weight, we say they are suffering from AIDS. Without any treatment, they usually die.

To find out whether a person has HIV, a special blood test can be done to see whether there are HIV antibodies in their blood. A positive test means that the person is infected with HIV.

Once a person has the virus in their body, it can be passed on to another person. HIV is passed from an infected man or woman to another person through:

- exchange of HIV-infected body fluids such as vaginal fluid, semen or blood, during unprotected sexual intercourse
- HIV-infected blood transfusions or contaminated needles, for example in the case of drug users sharing needles, or needle injuries in hospitals.

Children too can be infected in these ways, but they can also be infected by their mothers, during pregnancy, labour, delivery and breastfeeding.

## The risk of mother-to-child transmission of HIV

71/3

**Mother-to-child-transmission of HIV**

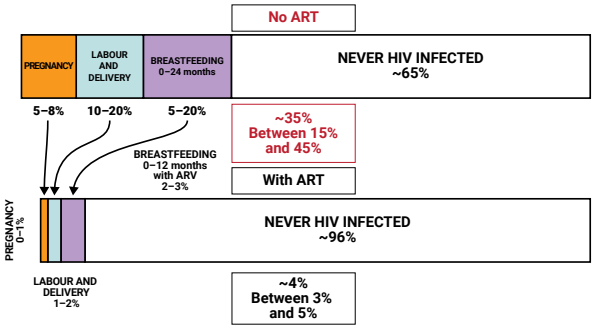
Young children who get HIV are usually infected:

- during pregnancy across the placenta
- at the time of labour and birth, through blood and secretions
- through breastfeeding or breast-milk feeding

This is called mother-to-child transmission of HIV, or MTCT

71/4

**Risk of mother-to-child transmission in pregnancy, labour and delivery, and breastfeeding for 2 years: without and with ART**




A large percentage of babies, about 65%, never become infected and remain free of HIV even when no ARV drugs are available. However, about 35% (range 15–45%) of babies will become HIV infected through mother-to-child transmission if a mother does not receive ART.

Not all mothers know their HIV status, so it is important when counselling a pregnant woman about HIV testing that she understands the risk to herself and to her baby if she is living with HIV but does not receive ARV drugs.

During pregnancy, around 0–1% of babies will be infected when ART is given. When ART is given to the mother, the risk of transmission during labour and delivery is reduced to 1–2% (from 10–20% without ART), which is a dramatic reduction in comparison.

The child is exposed to HIV as long as they are fed breast milk. But when ARV drugs are given to the mother, only 2–3% of babies become HIV infected.

The overall mother-to-child-transmission (including intrapartum and postpartum transmission) when mothers receive ART is 3–5%, compared to an average of 35% when treatment is not given. This impressive reduction in rate shows the impact of ART in increasing the number of babies who can be expected to survive free of HIV.

You may think that even a 3–5% risk of HIV transmission to an HIV-exposed baby is too high to recommend breastfeeding. But statistics show that an HIV-exposed baby who does not breastfeed is at an even greater risk of dying from more common diseases, such as diarrhoea or pneumonia.

Additionally, the breastfeeding mother receiving ART will be healthier and live longer, thus being able to take care of her infant.

# Factors that affect mother-to-child transmission of HIV

71/5

**Factors that affect mother-to-child transmission of HIV**

- Increasing risk
  - Recent infection with HIV
  - Severity of HIV infection
  - Obstetric procedures
  - Condition of the breasts (mastitis, cracked nipple)
  - Condition of the baby's mouth (bleeding gum, mouth ulcers, thrush)
- Lowering risk
  - ART given to the mother
  - ARV prophylaxis given to the baby

## Factors increasing the risk of transmission

### 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. All sexually active people need to know that unprotected sexual intercourse exposes them to infection with HIV. They may then infect their partners, and their baby too will be at higher risk. Using condoms during sexual intercourse is crucial to reducing HIV infections.

### Severity of HIV infection

If the mother is ill with HIV-related disease or AIDS and is not receiving ART, she has more virus in her body, and transmission to the baby is more likely.

### Obstetric procedures

During labour and delivery, any interventions that can damage the mother's or the baby's skin or mucous membranes and cause bleeding should be avoided. This means avoiding unnecessary use of instrumentation, episiotomy and premature or artificial rupture of the membranes, unless medically required. Invasive gastric or oral suctioning when the baby is delivered, which can damage the delicate tissues in the baby's nose or mouth, should be avoided. It also means avoiding procedures that are likely to result in the separation of the mother and baby after delivery, causing a delay in skin-to-skin contact and early initiation of breastfeeding.

### Condition of the breast

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 also reduces 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's body through the damaged skin.

## Factors lowering the risk of transmission

### Antiretroviral therapy given to the mother

HIV-infected mothers provided with ART for life, or until after delivery or all breastfeeding stops, have a much lower risk of passing HIV on to their babies.

### ARV prophylaxis given to the baby

ARV prophylaxis given to the baby after birth also reduces the risk of mother-to-child transmission of HIV.

## Breastfeeding-related factors

### Mixed feeding

In the absence of interventions, the risk of transmission is greater if an infant is given any other foods or drinks at the same time as breastfeeding during the first months of life. This is known as mixed feeding. The risk is less if the baby is exclusively breastfed. Other foods or drinks may cause diarrhoea and damage the gut, which might make it easier for the virus to enter the baby's blood.

Note, however, that mothers living with HIV can be reassured that ART reduces the risk of HIV transmission, even in the context of mixed feeding. Although exclusive breastfeeding is recommended, practising mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs.

### Duration of breastfeeding

The breast milk of a mother living with HIV contains the virus. Therefore, the child is exposed to HIV as long as they are receiving the breast milk. The number of virus particles in the breast milk can be reduced if the mother is correctly and consistently taking ART. It is thus important to support adherence to ART for the full duration of breastfeeding.

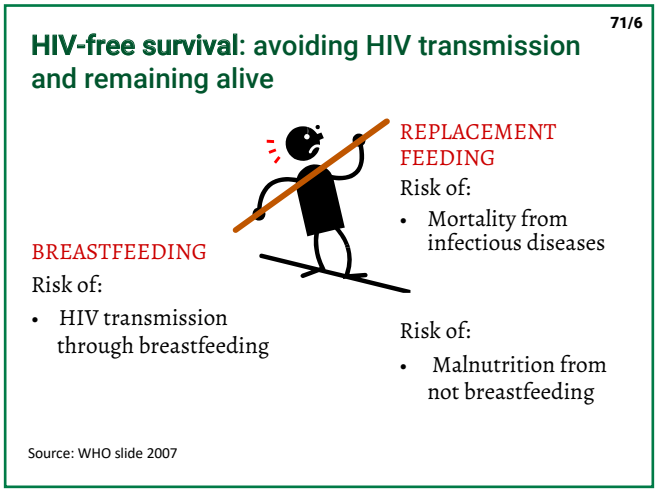
Mothers living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer (similar to the general population), while being fully supported for ART adherence.

Note, however, that mothers living with HIV who are on ART can be reassured that shorter durations of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.

The following strategies can help women to reduce the risk of these factors causing HIV transmission:

- practising safe sexual intercourse (with a condom), including during pregnancy and breastfeeding
- receiving regular antenatal and postnatal care
- practising good attachment and positioning
- making HIV testing, care and treatment interventions available to all women during maternal and child health services
- continuous availability of ART in health centres, and support to people living with HIV for adherence to the treatment
- giving appropriate public health messages.

# HIV-free survival




There is a balance between the risk of an HIV-exposed baby becoming infected with HIV through breastfeeding and the risk of the baby dying from common infectious diseases such as diarrhoea or pneumonia, or from malnutrition if they are **not** breastfeeding.

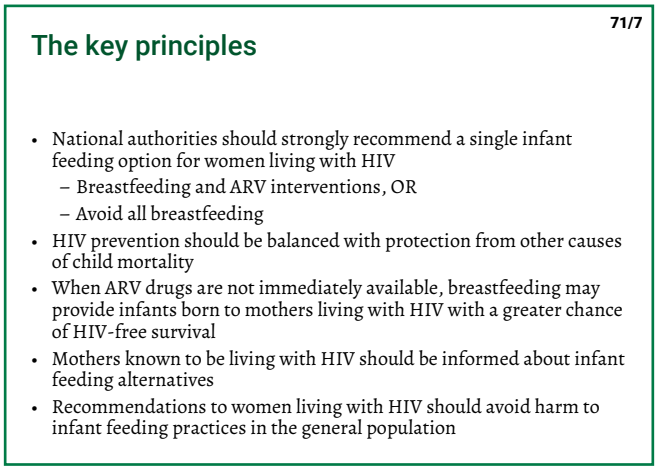
Although giving the baby replacement feeds would reduce the risk of HIV transmission to the baby, it does not necessarily increase the chances of the baby's survival, as the infants are more likely to die from childhood illnesses (when they don't get the antibodies to fight them).

We know that HIV-exposed babies benefit from breastfeeding for all the reasons we have already discussed in previous sessions, but we also know there is still a very small possibility of the baby becoming infected with HIV, even when the mother is receiving ART (3–5% at 12 months with full adherence).

For many years, health workers and mothers have been asking the question "which is the safest method of infant feeding for a mother who is living with HIV or who does not know her HIV status, or for a baby who is HIV exposed and still HIV negative?".

It is clear, from recent publications, that ARV drugs can reduce mother-to-child-transmission and more babies who are breastfed can survive their infancy free of HIV. This means that, when deciding how a baby should be fed, health authorities also have to consider which method of feeding poses the lowest risk of illness or of death to a baby.

# Key principles and recommendations for infant feeding in the context of HIV




The first point in the image above is that a country's national health authority should make the decision about whether to promote and support breastfeeding with ART for their population of HIV-infected mothers or to advise avoidance of all breastfeeding and recommend the use of replacement feeding. This decision should be based on criteria such as the main causes of infant death and the main causes of maternal and child undernutrition and whether the conditions needed to safely formula feed are available nationally.

National health authorities must make sure health workers know which feeding practices are to be promoted and supported in public clinics and hospitals.

Health workers should then communicate the decision to all pregnant women and mothers. Infant feeding counselling should focus on the practical aspects of feeding and ensure that mothers are fully supported to optimally feed their babies according to national recommendations.

Some governments may still decide that individual counselling of HIV-infected women on various feeding options is best in their particular situation, and may include a new policy on ART and breastfeeding in their own national authority infant feeding recommendations.

The second point emphasizes the need to have a balanced approach to HIV prevention by protecting the baby from other causes of childhood illness and death.

The third point continues with this theme. If ARV drugs are not **immediately** available, mothers should be counselled to exclusively breastfeed for the first 6 months of life and then continue breastfeeding alongside complementary feeding. Breastfeeding may still provide the baby with the best chance of HIV-free survival, unless the environmental conditions and support systems are good enough for safe use of replacement feeding. Efforts should be made to accelerate access to ARVs, for both maternal health and prevention of HIV transmission to infants.

The fourth point states that pregnant women and mothers known to be HIV infected should be informed of the infant feeding practice recommended by the national authority to improve HIV-free survival of HIV-exposed infants and the health of the mothers living with HIV, and informed that there are alternatives that mothers might wish to adopt.

The last point emphasizes the need to be careful in delivering counselling and support to mothers living with HIV, so there is no undermining of optimal breastfeeding practices among the general population.

71/8

### Main breastfeeding-related recommendations for women living with HIV

- Women should be provided with lifelong ART, to reduce HIV transmission through breastfeeding
- Mothers living with HIV should breastfeed for at least 12 months and can continue breastfeeding for up to 24 months or longer (as for the general population) while being fully supported for ART adherence
- National and local health authorities should actively coordinate and implement services in health facilities, and activities in workplaces, communities and homes, to protect, promote and support breastfeeding among women living with HIV
- If deciding to stop breastfeeding, mothers should do it gradually over 1 month

The first recommendation highlights the vital importance of ART in preventing mother-to-child-transmission.

The second recommendation states how long HIV-infected mothers should breastfeed their babies. Additionally, it reinforces the need to start complementary foods at 6 months of age.

Continuing breastfeeding beyond 12 months may be recommended if a woman is not able to provide a safe replacement for breast milk, or is unsure of her HIV status. In this case, a baby should be exclusively breastfed for 6 months and then breastfed with adequate complementary feeding up to at least 12 months, or up to 24 months or longer if desired (similar to the general population). Mothers in these situations may need reassurance that breastfeeding is the safest option for their babies.

The third recommendation stresses the point that pregnant and breastfeeding women, regardless of their HIV status, should receive skilled counselling and support for their infant feeding practices. Simple, consistent messaging is essential to support breastfeeding in the general population, including for mothers living with HIV. Such messaging should address views and concerns related to previous recommendations.

The last recommendation is that if an HIV-infected mother decides to stop breastfeeding, she should do it gradually over a period of 1 month.

The recommendations now promote optimal breastfeeding practices – as for the general population – for mothers living with HIV receiving ART.

Mothers living with HIV should only give commercial infant formula milk as a replacement feed to their HIV-negative babies or to babies who are of unknown status, when specific conditions are met.

### Conditions needed for safe use of replacement feeding

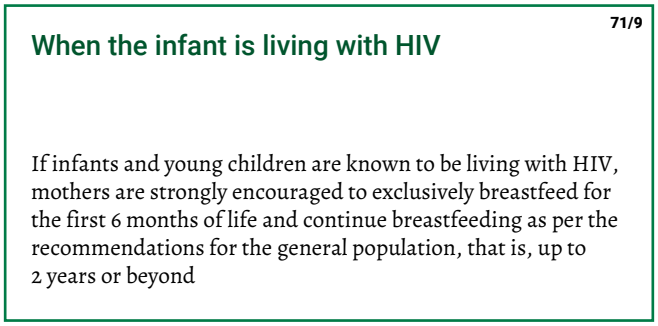
1. Safe water and sanitation are assured at household level and in the community.
2. The mother or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development.
3. The mother or caregiver can prepare the infant formula milk cleanly and frequently enough, so that it is safe and carries a low risk of diarrhoea and malnutrition.
4. The mother or caregiver can, in the first 6 months, exclusively give infant formula milk.
5. The family is supportive of this practice.
6. The mother or caregiver can access health care that offers comprehensive child health services.

The conditions in this box correspond to what was formerly referred as "AFASS" – Acceptable, Feasible, Affordable, Sustainable and Safe. These points are almost the same as previously but have now been expressed more simply to make it easier for you to explain what is needed to mothers.

These conditions apply where the national authority recommendation is for all mothers who are living with HIV to give replacement feeds. They also apply anywhere women may choose not to breastfeed or may choose to use replacement feeding.

**When mothers living with HIV do not exclusively breastfeed**, they can be reassured that ART reduces the risk of postnatal HIV transmission in the context of mixed feeding. Although exclusive breastfeeding is recommended, practising mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs.

**When mothers living with HIV do not plan to breastfeed for 12 months**, they can be reassured that shorter durations of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.




Inevitably, and sadly, some babies will become infected with HIV, and as you can see in this image, mothers of these babies are strongly encouraged to breastfeed.

These babies should all be started on lifelong ART, as soon as possible after testing positive for HIV.

Replacement feeds would increase the likelihood of these babies dying from common infections. If the mother is able to breastfeed, it is beneficial because the baby would be receiving the constant source of protective factors provided by breast milk. There are also emotional benefits to breastfeeding, for both the mother and the baby, as well as health benefits to them both, and these should all be considered when making the decision of how to feed the baby.

The mother and her family will need a lot of support, help and guidance.


This policy statement has not changed since 1997; all United Nations organizations continue to strongly support breastfeeding as the main feeding method for the general population of any country.

# Antiretroviral therapy and prophylaxis

In 2016, global guidelines on the use of ARV drugs for treating and preventing HIV infection were published. Lifelong ART is now recommended for everyone from the time when they are first diagnosed with HIV infection. This has greatly simplified the ARV options recommended for pregnant and breastfeeding women.

While looking at the ARV recommendations, it is good to also review the recommendations on HIV testing for infants and young children.

It is recommended that all HIV-exposed infants have HIV virological testing at 4–6 weeks of age, or at the earliest opportunity thereafter.

It is recommended that all HIV-exposed infants undergo HIV serological testing at around 9 months of age (or at the time of the last immunization visit). Infants who have reactive serological assays at 9 months should have a virological test to identify HIV-infected infants who need ART.

It is recommended that children aged 18 months or older with suspected HIV infection or HIV exposure have HIV serological testing performed, according to the validated national testing algorithm used in adults.

It is recommended that infants with signs or symptoms suggestive of HIV infection undergo HIV serological testing and, if reactive, should be referred for virological testing.

71/11

### ART recommendations for prevention of mother-to-child transmission of HIV

- ART should be initiated in all pregnant and breastfeeding women living with HIV, regardless of WHO clinical stage and at any CD4 cell count, and continued lifelong
- Newborn prophylaxis remains an important aspect of prevention of mother-to-child transmission and, for mothers who start ART later in pregnancy, guidelines propose enhanced prophylaxis recommendations that call for a longer duration of prophylaxis and multiple drugs

The first bullet point in the box above establishes that ART should be initiated in all women living with HIV as soon as they are diagnosed, regardless of WHO clinical stage and CD4 cell count; and the therapy should continue lifelong.

Newborn prophylaxis remains important.

**Infants born to mothers with HIV who are at high risk of acquiring HI**V should receive dual prophylaxis for the first 6 weeks of life, whether they are breastfed or receiving replacement feeding.

**Breastfed infants who are at high risk of acquiring HIV, including those first identified as exposed to HIV during the postpartum period**, should continue prophylaxis for an additional 6 weeks (making a total of 12 weeks).

- Infants of mothers who are receiving ART and are breastfeeding should receive 6 weeks of infant prophylaxis with nevirapine.
- Infants receiving replacement feeding and whose mothers are receiving ART should be given 4–6 weeks of infant prophylaxis with nevirapine or azidothymidine.

# Notes

# SESSION 72

## Overview of HIV and infant feeding 2

## Objectives

After completing this session, participants will be able to:

- explain the risk of mother-to-child transmission of HIV
- describe factors that influence mother-to-child transmission of HIV
- describe the key principles and recommendations for infant feeding in the context of HIV

## Introduction

HIV is a devastating infection, which touches many aspects of our lives. It affects people of all ages, the rich and the poor and all sectors of society, and is still a major cause of mortality. It is a worldwide challenge, affecting some countries far more than others.

HIV can be passed from a mother to her baby during pregnancy, labour and delivery and during breastfeeding. Antiretroviral (ARV) drugs reduce mother-to-child-transmission of HIV, and increase the HIV-free survival of babies. Breastfeeding prevents babies dying from common causes and is recommended as a principal feeding option combined with ARV drugs for mothers living with HIV.

Updated global recommendations on the use of ARV drugs for treating and preventing HIV infection have important implications for infant feeding recommendations. The World Health Organization (WHO) now recommends lifelong antiretroviral therapy (ART) for everyone from the time when any adult (including pregnant and breastfeeding women) or child is first diagnosed with HIV infection. This has affected the role of health workers and infant feeding counsellors in providing information and support to pregnant and breastfeeding women living with HIV and their babies.

72/2

### Defining HIV and AIDS

HIV

- **Human immunodeficiency** virus is the virus that causes AIDS

AIDS

- **Acquired immunodeficiency syndrome** is the condition that follows the earlier, non-symptomatic state of being HIV infected, when the immune system is weakened and people with the infection develop signs and symptoms

Individuals who are infected with HIV feel well at first and usually do not know they are infected. During this time, the body produces antibodies and other specialized immune cells, such as CD4 cells, that fight HIV. For several years, CD4 cells are able to keep the virus under control in a person's body and they remain healthy. However, eventually the HIV virus controls and destroys these immune cells.

When this happens the body becomes less able to fight other types of infections such as pneumonia, diarrhoea, tuberculosis (TB) and meningitis. When a person can no longer fight these infections and becomes very ill and loses weight, we say they are suffering from AIDS. Without any treatment, they usually die.

To find out whether a person has HIV, a special blood test can be done to see whether there are HIV antibodies in their blood. A positive test means that the person is infected with HIV.

Once a person has the virus in their body it can be passed on to another person. HIV is passed from an infected man or woman to another person through:

- exchange of HIV-infected body fluids such as vaginal fluid, semen or blood, during unprotected sexual intercourse
- HIV-infected blood transfusions or contaminated needles, for example in the case of drug users sharing needles, or needle injuries in hospitals.

Children too can be infected in these ways, but they can also be infected by their mothers, during pregnancy, labour, delivery and breastfeeding.

## The risk of mother-to-child transmission of HIV

72/3

**Mother-to-child-transmission of HIV**

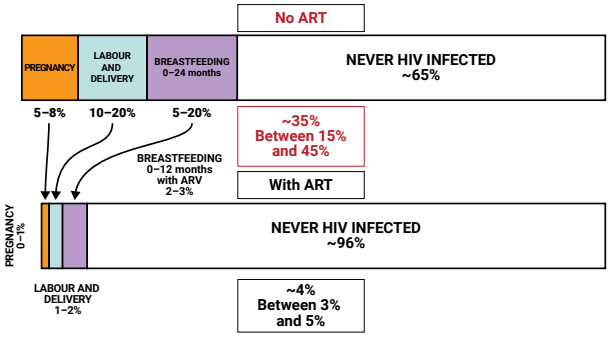
Young children who get HIV are usually infected:

- during pregnancy across the placenta
- at the time of labour and birth, through blood and secretions
- through breastfeeding or breast-milk feeding

This is called mother-to-child transmission of HIV, or MTCT

72/4

**Risk of mother-to-child transmission in pregnancy, labour and delivery, and breastfeeding for 2 years: without and with ART**




A large percentage of babies, about 65%, never become infected and remain free of HIV even when no ARV drugs are available. However, about 35% (range 15–45%) of babies will become HIV infected through mother-to-child transmission if a mother does not receive ART.

Not all mothers know their HIV status, so it is important when counselling a pregnant woman about HIV testing that she understands the risk to herself and to her baby if she is living with HIV but does not receive ARV drugs.

During pregnancy, around 0–1% of babies will be infected when ART is given. When ART is given to the mother, the risk of transmission during labour and delivery is reduced to 1–2% (from 10–20% without ART), which is a dramatic reduction in comparison.

The child is exposed to HIV as long as they are fed breast milk. But when ARV drugs are given to the mother, only 2–3% of babies become HIV infected.

The overall mother-to-child-transmission (including intrapartum and postpartum transmission) when mothers receive ART is 3–5%, compared to an average of 35% when treatment is not given. This impressive reduction in rate shows the impact of ART in increasing the number of babies who can be expected to survive free of HIV.

You may think that even a 3–5% risk of HIV transmission to an HIV-exposed baby is too high to recommend breastfeeding. But statistics show that an HIV-exposed baby who does not breastfeed is at an even greater risk of dying from more common diseases, such as diarrhoea or pneumonia.

Additionally, the breastfeeding mother receiving ART will be healthier and live longer, thus being able to take care of her infant.

# Factors that affect mother-to-child transmission of HIV

72/5

**Factors that affect mother-to-child transmission of HIV**

- Increasing risk
  - Recent infection with HIV
  - Severity of HIV infection
  - Obstetric procedures
  - Condition of the breasts (mastitis, cracked nipple)
  - Condition of the baby's mouth (bleeding gum, mouth ulcers, thrush)
- Lowering risk
  - ART given to the mother
  - ARV prophylaxis given to the baby

## Factors increasing the risk of transmission

### 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. All sexually active people need to know that unprotected sexual intercourse exposes them to infection with HIV. They may then infect their partners, and their baby too will be at higher risk. Using condoms during sexual intercourse is crucial to reducing HIV infections.

### Severity of HIV infection

If the mother is ill with HIV-related disease or AIDS and is not receiving ART, she has more virus in her body and transmission to the baby is more likely.

### Obstetric procedures

During labour and delivery, any interventions that can damage the mother's or the baby's skin or mucous membranes and cause bleeding should be avoided. This means avoiding unnecessary use of instrumentation, episiotomy and premature or artificial rupture of the membranes, unless medically required. Invasive gastric or oral suctioning when the baby is delivered, which can damage the delicate tissues in the baby's nose or mouth, should be avoided. It also means avoiding procedures that are likely to result in the separation of the mother and baby after delivery, causing a delay in skin-to-skin contact and early initiation of breastfeeding.

### Condition of the breast

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 also reduces 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's body through the damaged skin.

## Factors lowering the risk of transmission

### Antiretroviral therapy given to the mother

HIV-infected mothers provided with ART for life, or until after delivery or all breastfeeding stops, have a much lower risk of passing HIV on to their babies.

### ARV prophylaxis given to the baby

ARV prophylaxis given to the baby after birth also reduces the risk of mother-to-child transmission of HIV.

## Breastfeeding-related factors

### Mixed feeding

In the absence of interventions, the risk of transmission is greater if an infant is given any other foods or drinks at the same time as breastfeeding during the first months of life. This is known as mixed feeding. The risk is less if the baby is exclusively breastfed. Other foods or drinks may cause diarrhoea and damage the gut, which might make it easier for the virus to enter the baby's blood.

Note, however, that mothers living with HIV can be reassured that ART reduces the risk of HIV transmission, even in the context of mixed feeding. Although exclusive breastfeeding is recommended, practising mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs.

### Duration of breastfeeding

The breast milk of a mother living with HIV contains the virus. Therefore, the child is exposed to HIV as long as they are receiving the breast milk. The number of virus particles in the breast milk can be reduced if the mother is correctly and consistently taking ART. It is thus important to support adherence to ART for the full duration of breastfeeding.

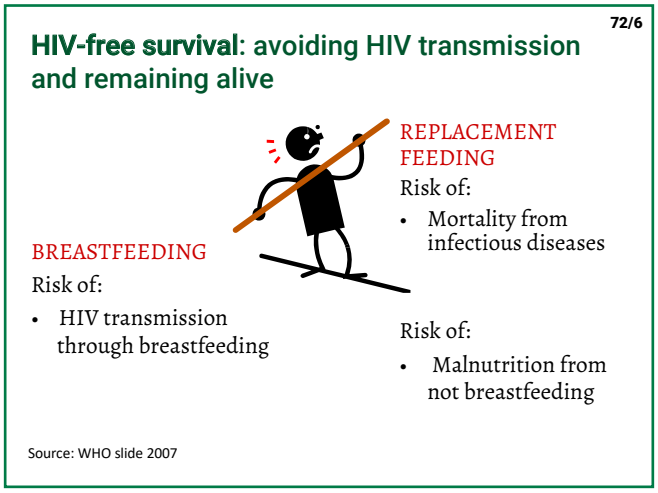
Mothers living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer (similar to the general population), while being fully supported for ART adherence.

Note, however, that mothers living with HIV who are on ART can be reassured that shorter durations of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.

The following strategies can help women to reduce the risk of these factors causing HIV transmission:

- practising safe sexual intercourse (with a condom), including during pregnancy and breastfeeding
- receiving regular antenatal and postnatal care
- practising good attachment and positioning
- making HIV testing, care and treatment interventions available to all women during maternal and child health services
- continuous availability of ART in health centres, and support to people living with HIV for adherence to the treatment
- giving appropriate public health messages.

# HIV-free survival




There is a balance between the risk of an HIV-exposed baby becoming infected with HIV through breastfeeding and the risk of the baby dying from common infectious diseases such as diarrhoea or pneumonia, or from malnutrition if they are not breastfeeding.

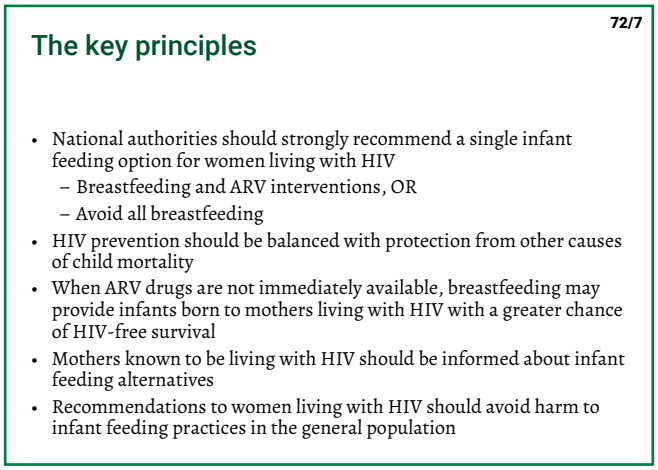
Although giving the baby replacement feeds would reduce the risk of HIV transmission to the baby, it does not necessarily increase the chances of the baby's survival, as the infants are more likely to die from childhood illnesses (when they don't get the antibodies to fight them).

We know that HIV-exposed babies benefit from breastfeeding for all the reasons we have already discussed in previous sessions, but we also know there is still a very small possibility of the baby becoming infected with HIV, even when the mother is receiving ART (3–5% at 24 months with full adherence).

For many years, health workers and mothers have been asking the question "which is the safest method of infant feeding for a mother who is living with HIV or who does not know her HIV status, or for a baby who is HIV exposed and still HIV negative?".

It is clear, from recent publications, that ARV drugs can reduce mother-to-child-transmission and more babies who are breastfed can survive their infancy free of HIV. This means that, when deciding how a baby should be fed, health authorities also have to consider which method of feeding poses the lowest risk of illness or of death to a baby.

# Key principles and recommendations for infant feeding in the context of HIV




The first point in the image above is that a country's national health authority should make the decision about whether to promote and support breastfeeding with ART for their population of HIV-infected mothers or to advise avoidance of all breastfeeding and recommend the use of replacement feeding. This decision should be based on criteria such as the main causes of infant death and the main causes of maternal and child undernutrition and whether the conditions needed to safely formula feed are available nationally.

National health authorities must make sure health workers know which feeding practices are to be promoted and supported in public clinics and hospitals.

Health workers should then communicate the decision to all pregnant women and mothers. Infant feeding counselling should focus on the practical aspects of feeding and ensure that mothers are fully supported to optimally feed their babies according to national recommendations.

Some governments may still decide that individual counselling of HIV-infected women on various feeding options is best in their particular situation, and may include a new policy on ART and breastfeeding in their own national authority infant feeding recommendations.

The second point emphasizes the need to have a balanced approach to HIV prevention by protecting the baby from other causes of childhood illness and death.

The third point continues with this theme. If ARV drugs are not immediately available, mothers should be counselled to exclusively breastfeed for the first 6 months of life and then continue breastfeeding alongside complementary feeding. Breastfeeding may still provide the baby with the best chance of HIV-free survival, unless the environmental conditions and support systems are good enough for safe use of replacement feeding. Efforts should be made to accelerate access to ARVs, for both maternal health and prevention of HIV transmission to infants.

The fourth point states that pregnant women and mothers known to be HIV infected should be informed of the infant feeding practice recommended by the national authority to improve HIV-free survival of HIV-exposed infants and the health of the mothers living with HIV, and informed that there are alternatives that mothers might wish to adopt.

The last point emphasizes the need to be careful in delivering counselling and support to mothers living with HIV, so there is no undermining of optimal breastfeeding practices among the general population.

72/8

### Main breastfeeding-related recommendations for women living with HIV

- Women should be provided with lifelong ART, to reduce HIV transmission through breastfeeding
- Mothers living with HIV should breastfeed for at least 12 months and can continue breastfeeding for up to 24 months or longer (as for the general population) while being fully supported for ART adherence
- National and local health authorities should actively coordinate and implement services in health facilities, and activities in workplaces, communities and homes, to protect, promote and support breastfeeding among women living with HIV
- If deciding to stop breastfeeding, mothers should do it gradually over 1 month

The first recommendation highlights the vital importance of ART in preventing mother-to-child-transmission.

The second recommendation states how long HIV-infected mothers should breastfeed their babies. Additionally, it reinforces the need to start complementary foods at 6 months of age.

Continuing breastfeeding beyond 12 months may be recommended if a woman is not able to provide a safe replacement for breast milk, or is unsure of her HIV status. In this case, a baby should be exclusively breastfeed for 6 months and then breastfed with adequate complementary feeding for at least 2 years, the same as for the general population. Mothers in these situations may need reassurance that breastfeeding is the safest option for their babies.

The third recommendation stresses the point that pregnant and breastfeeding women, regardless of their HIV status, should receive skilled counselling and support for their infant feeding practices. Simple, consistent messaging is essential to support breastfeeding in the general population, including for mothers living with HIV. Such messaging should address views and concerns related to previous recommendations.

The last recommendation is that if an HIV-infected mother decides to stop breastfeeding, she should do it gradually over a period of 1 month.

The recommendations now promote optimal breastfeeding practices – as for the general population – for mothers living with HIV receiving ART.

Mothers living with HIV should only give commercial infant formula milk as a replacement feed to their HIV-negative babies or to babies who are of unknown status, when specific conditions are met.

### CONDITIONS NEEDED FOR SAFE USE OF REPLACEMENT FEEDING

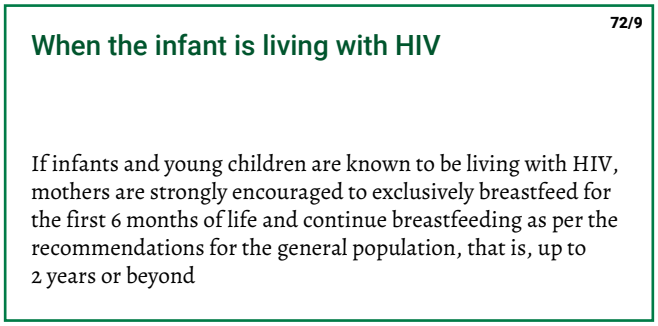
1. Safe water and sanitation are assured at household level and in the community.
2. The mother or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development.
3. The mother or caregiver can prepare the infant formula milk cleanly and frequently enough, so that it is safe and carries a low risk of diarrhoea and malnutrition.
4. The mother or caregiver can, in the first 6 months, exclusively give infant formula milk.
5. The family is supportive of this practice.
6. The mother or caregiver can access health care that offers comprehensive child health services.

The conditions in this box correspond to what was formerly referred as "AFASS" – Acceptable, Feasible, Affordable, Sustainable and Safe. These points are almost the same as previously but have now been expressed more simply to make it easier for you to explain what is needed to mothers.

These conditions apply where the national authority recommendation is for all mothers who are living with HIV to give replacement feeds. They also apply anywhere women may choose not to breastfeed or may choose to give replacement feeds.

**When mothers living with HIV do not exclusively breastfeed**, they can be reassured that ART reduces the risk of postnatal HIV transmission in the context of mixed feeding. Although exclusive breastfeeding is recommended, practising mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs.

**When mothers living with HIV do not plan to breastfeed for 12 months**, they can be reassured that shorter durations of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.




Inevitably, and sadly, some babies will become infected with HIV, and as you can see in this iamge, mothers of these babies are strongly encouraged to breastfeed.

These babies should all be started on lifelong ART, as soon as possible after testing positive for HIV.

Replacement feeds would increase the likelihood of these babies dying from common infections. If the mother is able to breastfeed it is beneficial because the baby would be receiving the constant source of protective factors provided by breast milk. There are also emotional benefits to breastfeeding, for both the mother and the baby, as well as health benefits to them both, and these should all be considered when making the decision of how to feed the baby.

The mother and her family will need a lot of support, help and guidance.


This policy statement has not changed since 1997; all United Nations organizations continue to strongly support breastfeeding as the main feeding method for the general population of any country.

# Notes

# Notes (contd)

# SESSION 73

## Antiretroviral therapy and infant feeding

### Objectives

After completing this session, participants will be able to:

- describe the national protocol for antiretroviral therapy (ART) and for use of antiretroviral drugs
- promote appropriate use of nationally recommended ART for mothers living with HIV and their infants
- describe the practical issues of ART implementation

### Introduction

Antiretroviral drugs have a vital role to play in reducing the risk of mother-to-child-transmission of HIV during pregnancy, delivery and, importantly, breastfeeding. In addition, they also keep the mother healthier for longer.

This is only possible if a woman knows her HIV status. This means one of our main priorities in early pregnancy is to encourage all pregnant women to have an HIV test, if they do not already know whether they are living with HIV.

### Who should receive lifelong antiretroviral therapy?

The latest international recommendation is for all pregnant and breastfeeding women who test positive on an HIV test to be given triple antiretroviral therapy (ART) (ARV3).

ART should be initiated in all pregnant and breastfeeding women living with HIV, regardless of World Health Organization (WHO) clinical stage and at any CD4 cell count, and continued lifelong.

Infants born to mothers living with HIV who are at high risk of acquiring HIV-2 should receive dual prophylaxis with azidothymidine (AZT; twice daily) and nevirapine (NVP; once daily) for the first 6 weeks of life, whether they are breastfed or formula fed.

Breastfed infants who are at high risk of acquiring HIV, including those first identified as exposed to HIV during the postpartum period, should continue infant prophylaxis for an additional 6 weeks (total of 12 weeks of infant prophylaxis), using either AZT (twice daily) and NVP (once daily) or NVP alone.

Infants of mothers who are receiving ART and are breastfeeding should receive 6 weeks of infant prophylaxis with daily NVP. If infants are receiving replacement feeding, they should be given 4–6 weeks of infant prophylaxis with daily NVP (or twice-daily AZT).

National or subnational health authorities should decide whether health services will principally counsel and support mothers known to be HIV infected, to either breastfeed and receive ARV3 interventions or avoid all breastfeeding.

In settings where national authorities have decided that maternal and child health services will principally promote and support breastfeeding and antiretroviral interventions, as the strategy that will most likely give infants born to mothers known to be HIV infected the greatest chance of HIV-free survival, mothers known to be infected with HIV should exclusively breastfeed their infants for the first 6 months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life.

Breastfeeding should then stop only once a nutritionally adequate and safe diet without breast milk can be provided (strong recommendation, high-quality evidence for the first 6 months; low-quality evidence for the recommendation of 12 months).

# Antiretroviral therapy for pregnant or breastfeeding women

The following protocols are recommended for pregnant and breastfeeding women:

- TDF (tenofovir) + 3TC (lamivudine) (or FTC [emtricitabine]) + EFV (efavirenz)
- AZT (zidovudine) + 3TC + EFV (or NVP)
- TDF + 3TC (or FTC) + NVP

DTG (dolutegravir) has not been sufficiently studied in pregnant women for it to be recommended as an alternative in this population, unless the perceived benefits outweigh the potential risks. In addition, the efficacy of low-dose EFV in pregnancy has not been studied.

Throughout pregnancy, key principles and practices of safe motherhood should be followed, including reinforcement of recommended antenatal clinic visits and facility-based delivery by skilled birth attendants. Instrumentation should be avoided unless essential, and neonates should be washed of any blood and cared for using non-invasive techniques as much as possible. Health workers should follow universal precautions for all deliveries, including deliveries by women living with HIV. Special efforts should be made to ensure that delivery care for women living with HIV is provided in a non-stigmatizing and supportive manner.

Although elective caesarean section has been shown to protect against HIV acquisition, especially in the absence of ARV drugs or in the case of a high viral load, WHO does not recommend it in resource-limited settings specifically for HIV infection; rather, it is recommended for obstetric and other medical indications.

Neonatal prophylaxis remains an important aspect of prevention of mother-to-child transmission of HIV and, for mothers who start ART later in pregnancy, these guidelines propose enhanced prophylaxis recommendations that call for a longer duration of prophylaxis and multiple drugs.

- Infants born to mothers with HIV who are at high risk of acquiring HIV should receive dual prophylaxis with AZT (twice daily) and NVP (once daily) for the first 6 weeks of life, whether they are breastfed or formula fed (strong recommendation, moderate-quality evidence).
- Breastfed infants who are at high risk of acquiring HIV, including those first identified as exposed to HIV during the postpartum period, should continue infant prophylaxis for an additional 6 weeks (total of 12 weeks of infant prophylaxis) using either AZT (twice daily) and NVP (once daily) or NVP alone (conditional recommendation, low-quality evidence).
- Infants of mothers who are receiving ART and are breastfeeding should receive 6 weeks of infant prophylaxis with daily NVP. If infants are receiving replacement feeding, they should be given 4–6 weeks of infant prophylaxis with daily NVP (or twice-daily AZT) (strong recommendation, moderate-quality evidence for breastfeeding infants; strong recommendation, low-quality evidence for infants receiving only replacement feeding).

# The main issues involved in implementing antiretroviral therapy

ART can be initiated without delay, to all pregnant and breastfeeding women who test positive on an HIV test. Initiation does not depend upon a CD4 cell count or clinical stages.

It is more acceptable for women to have one simple drug regimen throughout pregnancy, childbirth and breastfeeding, and it is much easier to administer for community workers.

Breastfeeding with ART can increase the chances of a baby surviving HIV free and with a lower risk of other common infections.

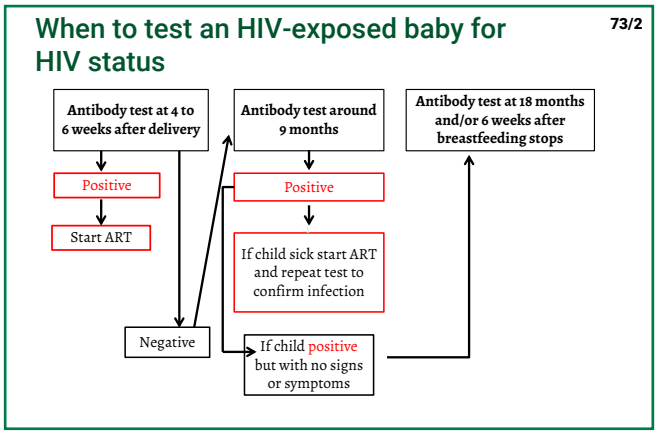
In the community, appropriate services are needed to prevent mother-to-child transmission of HIV; these need to be integrated within the maternal and child health services and programmes for HIV treatment and care. This means there has to be collaboration and regular communication between different services and the people who work in them, to ensure there are no problems for the women having to use them.

Antenatal and postnatal services should be where treatment, care and support for mothers living with HIV and their children and families can be given; in this way, continuity of care is possible, especially meeting with the same counsellors for HIV and for infant feeding.

ART has to be available for all pregnant and breastfeeding mothers living with HIV for lifelong use, and adherence to the drug regimen monitored regularly. The health of women and their children must be regularly monitored and maintained.

Effective support should be provided to include family planning, determining the final infection outcome of the HIV-exposed child and, if necessary, ensuring early treatment for babies who become infected with HIV.

Infant feeding counsellors have an important role to play in supporting mothers living with HIV for adherence to ART.




Record-keeping and confidentiality are crucial at all stages. So too is auditing the impact of ART on the HIV survival of babies and on the health of the mothers.

# Notes

# Notes (contd)

# SESSION 74

## Supporting women living with HIV to breastfeed

### Objectives

After completing this session, participants will be able to:

- counsel a women living with HIV to breastfeed according to national health authority recommendations
- provide practical help in maintaining exclusive breastfeeding
- describe how to heat-treat and store a mother's expressed breast milk
- describe the criteria for using a wet nurse
- explain how to stop breastfeeding gradually
- support a woman living with HIV who decides to breastfeed when the national health authority recommendation is to use replacement feeding

### Introduction

All health workers who care for mothers living with HIV should be fully trained to support breastfeeding, particularly exclusive breastfeeding for 6 months, maintaining breastfeeding for at least the first year of life while providing complementary foods, and continuing breastsfeeding for up to 24 months or beyond while being fully supported for adherence to antiretroviral therapy (ART).

### Exclusive breastfeeding and the importance of adherence to antiretroviral therapy

Pregnant and breastfeeding women living with HIV should be aware of two important pieces of information: why exclusive breastfeeding is best for their babies and the importance of antiretroviral treatment in preventing mother-to-child transmission of HIV.

Breastfeeding and taking ART will give their babies the best chance of HIV-free survival and the best chance of avoiding common infections and conditions that threaten the lives of babies who are not breastfed.

Explain to women that breastfeeding is safe and does protect their babies. It may be difficult for some mothers who were previously advised that the use of replacement feeding was a better option, to now accept that breastfeeding is best.

Understanding how the breasts make milk and what can interfere with that process is crucial to a mother's understanding of why giving supplements and mixed feeding can affect their milk supply and put their babies at risk of more common infections. Much of this information was covered in earlier sessions.

A mother living with HIV who is going to exclusively breastfeed her baby should know:

- several different feeding positions
- how to achieve good attachment and recognize poor attachment
- how to express her breast milk without damaging her breasts
- what will happen at the time of birth, and what should happen at the first breastfeed
- what to do and who to contact if she has any problems with her breasts or with breastfeeding
- the importance of attending regular follow-up visits, either in the health facility or in a community clinic, to assess breastfeeding
- that establishing breastfeeding takes time, especially if this is her first baby, and that it gets easier as each day passes
- where to get regular supplies of ART
- how to take the ART and have support for adherence (for example through a support group).

Women living with HIV, particularly if they are first-time mothers or have had problems with breastfeeding before, should learn the practical skills of breastfeeding in the antenatal period, or as early as possible after delivery.

A checklist of what you want a woman to know ensures that you cover the information and practical skills they need.

A good way to teach the skills is to let the mother practise with a doll and model breast. For example, the health worker can demonstrate different sitting and lying positions for breastfeeding and the mother can copy her.

Like all women, a mother living with HIV needs to keep her breasts healthy and she must learn and use good techniques to prevent damaged nipples or breasts.

If she has a breast problem, she should know:

- what immediate action to take
- where to go for medical help
- how to continue to give her breast milk safely if she has to stop breastfeeding for a short period of time.

Exclusive breastfeeding may be particularly difficult for any mother (whether living with HIV) who works outside the home and cannot take her baby with her. Discussion of how the mother can overcome challenges to exclusive breastfeeding should take place in the antenatal period if possible, so that solutions can be found well in advance.

Regular postnatal follow-up visits in the health facility, or in a community clinic, should be arranged to help and support a woman to breastfeed exclusively for 6 months. These visits should include monitoring that she is taking her ART correctly and breastfeeding is going well and addressing any other HIV or infant feeding issues she may have. The mother living with HIV and her baby should be followed up until after the baby or young child has had an HIV test to confirm their final HIV status.

A woman living with HIV who is taking ART in the first 6 months may occasionally give mixed feeds without increasing the risk of her baby becoming HIV infected. But giving mixed feeds may increase the risk of her baby becoming ill from more common infections because the baby may get fewer breastfeeds.

Mixed feeding is more dangerous if a woman is HIV infected and is not being treated with ART, or she does not know her HIV status. In these situations, there is an increased risk of mother-to-child transmission of HIV and of her baby becoming ill. Therefore, any mother who is not exclusively breastfeeding during the first 6 months should be encouraged to start or restart.

Counselling on infant feeding needs to take into account the woman's disease progression. Evidence suggests advanced disease may increase the rate of postnatal transmission.

# Heat-treatment of expressed breast milk

Although exclusive breastfeeding for 6 months is what we want a mother living with HIV to be able to do, she still needs information about what she can do if she is temporarily unable to breastfeed

Women living with HIV may have to temporarily stop breastfeeding:

- if the mother or the baby are unwell, for example the baby may be unable to breastfeed
- the mother and baby may be separated for various reasons, for example if the mother is working away from her baby
- if the mother has a breast condition
- if ART or antiretroviral drugs are temporarily unavailable.

To continue providing her baby breast milk, there are various options:

- the mother can express her breast milk
- the mother's own breast milk can be heat-treated
- a wet nurse can breastfeed the baby
- if a milk bank is available in the country, donor milk can be used.

We will now look at some of these ways of providing breast milk for a baby.

If a mother has to stop breastfeeding for a short time, the simplest way she can give her baby her own breast milk is to express her milk and, if necessary, heat-treat it.

Heat-treatment of expressed breast milk inactivates HIV, making it safe for a mother to give to her baby.

Some anti-infective components in breast milk are reduced by heat-treatment but the breast milk still retains most of its protective value and still remains superior to any breast-milk substitute.

The important question is when should expressed breast milk be heat-treated?

Expressed breast milk, does not need to be heat-treated if the mother is HIV negative or if she is taking ART when she is breastfeeding, except in a small number of situations.

There are several ways to heat-treat breast milk. In the practical session (Session 78), we will demonstrate using "flash heating" of breast milk. This method inactivates HIV, making the milk safe to feed to an HIV-exposed baby, and retains more nutrients than some other methods of heat-treatment.

If a mother is in a hospital, her milk may be pasteurized using a method called "Holder pasteurization". This is the method used in milk banks for donor milk. The milk is heated using equipment that controls the temperature at 62.5 °C for 30 minutes.

To prepare a feed, a mother should express her breast milk about 1 hour before the feed is due. She should express enough milk for that feed into a suitable container, or she can use milk that she may have expressed earlier and refrigerated.

A mother may be able to follow her baby's sleeping pattern and prepare feeds ready for when she expects her baby to wake. If necessary, to avoid leaving the milk too long or wasting it, she may sometimes have to wake her baby for a feed.

To avoid having to use more fuel to heat the breast milk than necessary, it may be possible to heat-treat the milk while cooking the family's meals.

It is best to use a small open cup to feed the heat-treated breast milk to a baby, as cups are easy to keep clean. Feeding bottles and teats are more difficult to clean and should be avoided if possible, particularly if the mother intends to continue breastfeeding.

A mother can store her expressed breast milk for about 8 hours at room temperature. The milk should be put in the coolest part of the room in a container with a lid. The container can be stood in cold water. If a mother has a refrigerator, she can store her milk inside for up to 24 hours.

Expressed breast milk should be put at the back of the top shelf of the refrigerator, where the temperature is constant. Do not put breast milk in the door of a refrigerator, because each time the door is opened, the temperature rises a little and this can increase the risk of bacterial growth in the milk.

Once expressed breast milk is heat-treated, it should be used as soon as possible and should be kept in a covered container in a cool place. Discard any milk left over in the cup after a feed

## Breastfeeding by another woman who is HIV negative

Where wet-nursing is acceptable, a woman who is breastfeeding another baby will need to have sufficient rest, food and water for herself.

The cost of nourishing her is usually less than the cost of providing replacement feeding for a baby.

The baby's own mother, if she is able, can provide as much of the other care of her baby as possible, cuddling, changing, washing, massaging and later giving other foods. This contact helps to build the bond between the mother and her baby.

To protect a baby from HIV, the wet nurse must be HIV negative. The only way for the mother to know for sure that the wet nurse is HIV negative is for the wet nurse to be tested at least 3 months after the last time she had unprotected sexual intercourse, or after any other possible exposure to HIV.

The wet nurse will need to protect herself from HIV infection for the entire time she is breastfeeding. This means:

- not having sexual intercourse, or
- using a condom every time she has sexual intercourse, or
- having sexual intercourse with only one partner, who has tested negative for HIV and who is being faithful to her
- not sharing any razors, needles or other piercing objects.

The wet nurse should be available to feed the baby on demand, both night and day.

She should receive counselling about how to prevent cracked nipples, breast infections and engorgement.

If a baby is already infected with HIV, there may be a very small chance that HIV can be passed to the wet nurse through breastfeeding. The wet nurse needs to know about this small risk and avoid breastfeeding if she has a cracked nipple or if the baby has oral thrush, or any signs or sore places in their mouth.

In areas where HIV is prevalent, breastfeeding a close relative's baby is not recommended. For example, an aunt who has a child of her own may care for a baby while their mother is out. The mother may be delayed in returning home and the aunt breastfeeds the baby. But does the mother know the HIV status of her relatives? Both the aunt and the baby may be at increased risk of passing HIV on.

## How to stop breastfeeding gradually

Stopping breastfeeding suddenly can affect the baby's health, for example, the incidence of diarrhoea increases and the baby's growth may slow. Psychologically, it can affect the mother too, making her depressed and more stressed.

Stopping breastfeeding slowly is a more normal process. The mother's breasts are less likely to become engorged and her milk will gradually diminish over the course of 1 month, giving the baby or the young child time to get used to another method of feeding.

It is a good idea to plan this with a health worker well in advance. Begin by expressing some breast milk and replacing one breastfeed with a cup feed of breast milk. Gradually increase the number of cup feeds given, until the baby is taking all cup feeds of expressed breast milk.

Then gradually replace the breast milk with commercial infant formula milk (if the baby is aged under 6 months) or animal milk (e.g. cow's milk; in children aged 6 months or older, boiled for infants under 12 months), depending upon the age of the baby, until the baby is having all replacement feeds.

Comforting a baby when breastfeeding has stopped needs advance planning. Cuddling, massaging or rocking the baby may help. Offering a finger for the baby to suck on may also help. Ask the father to hold and comfort the baby. Babies who are crying often stop when they hear a man's voice.

## Support the decision to breastfeed if use of replacement feeding is the national health authority recommendation

A woman living with HIV who chooses to breastfeed rather than to follow a national health authority recommendation of replacement feeding needs to be counselled and supported by her infant feeding counsellors and health workers.

She should be advised to discuss her decision to breastfeed with her family. She needs to think about her personal circumstances and be aware of the implications of her decision.

It is important for her to know whether the national health authority will provide her with antiretroviral drugs if she chooses to breastfeed rather than follow the recommendation of replacement feeding. A national health authority is not obliged to provide more than is covered within the nationally recommended method of infant feeding. This means it is important to know exactly what is written in the national recommendation for HIV and infant feeding.

It may be helpful for the infant feeding counsellor to discuss with the mother the positive and negative aspects of breastfeeding rather than use of replacement feeding. This may help her decide what to do.

On the positive side:

- The majority of babies born to mothers living with HIV are not infected with HIV.
- Exclusive breastfeeding protects babies against many common infections.
- If the woman is taking lifelong ART, the risk of mother-to-child transmission of HIV is very small.
- Breastfeeding may be culturally acceptable; replacement feeding may not be so acceptable.
- If she is not taking ART, the mother can heat-treat her breast milk to feed to her baby, or she could find a wet nurse who is HIV negative.

On the negative side:

- The mother and her family should be aware of the financial implications of not following the national health authority decision to use replacement feeding for her baby. Antiretroviral drugs may not be freely available to her, or she may have difficulty getting a private supply of the drugs, or she may not be eligible for lifelong ART and have to stop taking ART after delivery.
- The mother's decision may not be supported by her family.
- The risk of the baby being infected with HIV is higher if ART is not available to the mother.
- The mother will have to sustain exclusive breastfeeding for 6 months, which may be very difficult if she has to return to work/school or be away from home.

## Summary

We need to ensure that women living with HIV are supported to breastfeed their babies. They must receive appropriate ART, at least until all breastfeeding has stopped, to reduce the risk of mother-to-child transmission of HIV.

Exclusive breastfeeding is recommended for 6 months and then breastfeeding alongside complementary foods up to at least 12 months; breastfeeding can continue up to 2 years of age or beyond, provided the woman is on ART. When mothers stop breastfeeding, they should do so gradually over a period of 1 month.

Mothers need to master the practical skills of breastfeeding, such as attachment and positioning, and expression of breast milk, so that they avoid breast problems. In addition, they should know what to do if they have to temporarily stop breastfeeding. Knowing how to heat-treat their own expressed breast milk or how to choose a wet nurse may be useful in ensuring a baby can continue to have breast milk.

Mothers who choose to breastfeed if their national health authority recommends replacement feeding should be fully supported to do so.

# Notes

# Session 75

## Supporting women living with HIV to use replacement feeding

### Objectives

After completing this session, participants will be able to:

- support women living with HIV to use replacement feeding according to their national health authority's infant feeding recommendations
- describe how to ensure replacement feeding is safely given to babies
- support women living with HIV who decide to use replacement feeding and not follow the national health authority recommendation to breastfeed, with how to ensure replacement feeding is safely given to babies
- support mothers living with HIV who stop breastfeeding and change to replacement feeding

### Introduction

There are several reasons why replacement feeding may be used instead of breastfeeding. A country's national health authority may recommend use of replacement feeding for all babies whose mothers are living with HIV; a mother who was breastfeeding may decide to stop breastfeeding; or she may choose use of replacement feeding rather than breastfeeding.

Whatever the reason, mothers need to be supported to give replacement feeds safely, to ensure their babies are not at risk of common infections or malnutrition.

75/2

**What is replacement feeding?**

Replacement feeding is the method of feeding a baby or young child who is not receiving any breast milk, with a diet that provides all the nutrients needed until they are fully fed on family foods.

Milk is an important part of a baby's diet for at least the first 2 years of life.

A baby who is being given replacement feeds from birth, or at any time during the first 6 months of life, and who is not breastfeeding or receiving expressed breast milk, should be given a commercial infant formula milk, suitable for newborn babies.

After the first 6 months, until the baby is 12 months old, the baby can continue with the same commercial infant formula milk or can be given boiled cow's milk alongside suitable complementary foods. The cow's milk should be boiled to make the protein more digestible for babies in this age group but you do not need to dilute the cow's milk with water.

Babies aged over 12 months can safely be given cow's milk as a primary source of milk.

Home-modified animal milks are **NOT** recommended for babies under 6 months and may result in stunting or undernutrition of the baby.

## Conditions that should be in place for safe use of replacement feeding

Commercial infant formula milk is modified milk. It is usually cow's milk, containing added ingredients that provide an appropriate balance of nutrients and micronutrients to support satisfactory early growth and development for the first 12 months of life. Commercial infant formula has to meet strict international standards in accordance with the Codex *Alimentaris*, which makes it acceptable for use as a replacement if breastfeeding is not possible.

It is important to remember that formula milk can never be the same quality as a mother's breast milk. It does not contain the immune or growth factors that are found in breast milk and these cannot be added artificially.

Formula milk must be hygienically and correctly prepared using formula powder added to clean water, or given as a ready-made formula milk.

To be safe, formula milk should only be used as a replacement feed if certain conditions are met.

### Conditions needed for safe use of replacement feeding

1. Safe water and sanitation are assured at household level and in the community.
2. The mother or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development.
3. The mother or caregiver can prepare the formula milk cleanly and frequently enough, so that it is safe and carries a low risk of diarrhoea and malnutrition.
4. The mother or caregiver can, in the first 6 months, exclusively give infant formula milk.
5. The family is supportive of this practice.
6. The mother or caregiver can access health care that offers comprehensive child health services.

These conditions should apply to any woman who, for whatever reason, will be giving replacement feeds to her baby, irrespective of her HIV status.

Mothers should be told what the specific conditions are, why they are important and how they can be met in their own homes.

Where use of replacement feeding is the national HIV infant feeding recommendation, these conditions should be achievable by all mothers living with HIV using this method of feeding.

## Advantages and disadvantages of using replacement feeding

Supporting the use of replacement feeding as the country's choice of feeding method for all women living with HIV means helping them to accept that this is necessary and safe for their babies. It may be a difficult choice for women to accept when the majority of mothers are not infected with HIV, and are breastfeeding.

We need to reassure a mother who is giving replacement feeding because it is a national choice, that she can have a close bond with her baby. Whether a mother is breastfeeding or using replacement feeding, she should still have skin-to-skin contact with her baby after delivery. When the baby shows signs of wanting to feed, the mother should give formula milk, while holding her baby very close to her.

Mothers living with HIV who are not taking antiretroviral therapy (ART) after delivery need to understand that, after delivery, any breastfeeding they do will put their baby at increased risk of being infected with HIV. If a mother has stopped taking ART, the risk will be present each time she breastfeeds. This should be considered if a mother living with HIV is likely to breastfeed at home due to social pressure, such as when friends or relatives are present who do not know her HIV status.

It is important in the antenatal period to help a woman to think about the positive aspects of using replacement feeding, and to think about the challenges she may face, such as the challenge we have just discussed, so that, with the help of an infant feeding counsellor, solutions can be found that may help overcome potentially difficult situations in the future.

## Positive aspects of using replacement feeding

- There is no risk of transmitting HIV if exclusive replacement feeding is given.
- Other family members can help feed the baby.
- Feeding the baby may be easier for the mother if she has to work.
- Formula milk contains an appropriate balance of nutrients for the baby's growth and development.
- You know how much milk a baby is getting.
- Formula milk is provided free of charge (depending upon the national health authority's HIV infant feeding policy; give information on how the formula milk is provided in the specific country).

## Negative aspects of using replacement feeding

- Neither formula milk nor cow's milk contains immune factors that help protect a baby from common infections.
- A baby is more at risk of becoming seriously ill from diarrhoea, chest infections and malnutrition, especially if formula milk is not prepared correctly.
- The mother needs clean water and fuel to heat the water sufficiently to prepare formula milk, and if she is using cow's milk from 6 up to 12 months, she must remember to boil it first.
- Formula milk takes time to prepare and must be made freshly at each feed.
- Formula milk is expensive and there must be a reliable source to obtain it. A baby needs approximately 40 500 g tins for the first 6 months. This can cost … per month and … for the first 6 months.
- A mother may feel isolated if all her friends are breastfeeding.
- The mother may feel she has to breastfeed in front of her family or friends
- If the mother decides to bottle feed, this may not be the normal way to feed a baby, which will make people think the mother has HIV.
- A mother may get pregnant again very quickly because only breastfeeding will suppress ovulation.

Women need support. They need it from health workers, both in health facilities and in the community, and from their family and friends. It may be very difficult for some women not to breastfeed.

There is a great deal of work that still has to be done to educate communities about HIV; any support that comes from community groups for the mother giving replacement feeding is particularly important, especially in areas where breastfeeding is the main method of feeding among the general population. This will help mothers feel less isolated.

Encourage women and their husbands or partners to use appropriate family planning methods, to avoid having another baby too quickly.

We should tell a woman who will be using replacement feeding to make sure all equipment used in making up feeds or giving them is kept scrupulously clean. This will help to reduce the risk of her baby becoming ill.

# Information about commercial formula milk

Formula milk has to be made up correctly. The consequences of not doing so can be very serious and lead to the baby becoming ill or dying.

Any woman giving formula milk to her baby should be individually shown how to make it up. She should then demonstrate back to the health worker, to show that she can make up formula milk safely. It is useful for a woman to do this before the birth of her baby, or very soon after the birth, or before she stops breastfeeding.

Infant formula powder is not a sterile product. Even if a tin is sealed, it can still contain bacteria. If the feed is not prepared according to the manufacturer's instructions, these bacteria can cause infection in the baby.

To prevent infection, the water must be boiled so that it is more than 70 °C when used to prepare the formula powder.

Emphasize to the mother that she must add the formula powder to the water, **NEVER** add the water to the formula powder.

The mother needs to regularly check the instructions on the tin, or with a health worker, to see how much formula powder to use as the baby gets older and puts on more weight.

75/3

### Approximate amount of milk needed to feed a baby each day

| Baby's age | Number of feeds per day | Amount of milk or formula per feed | Total milk or formula per day |
|---|---|---|---|
| Birth up to 1 month | 8 | 60 mL | 480 mL |
| 1 up to 2 months | 7 | 90 mL | 630 mL |
| 2 up to 4 months | 6 | 120 mL | 720 mL |
| 4 up to 6 months | 6 | 150 mL | 900 mL |

This chart shows you approximately how much milk a baby needs at each feed over a 24-hour period from birth until 6 months of age.

You can see that a newborn baby needs to be fed small amounts of milk at least eight times in 24 hours. The amount gradually increases as the baby grows and gets older, and the baby usually needs to be fed less often in 24 hours.

On the first 2 days after birth, you should give the baby smaller feeds more often, because the baby's stomach is very small at birth and gradually stretches over the first few days.

The amount a baby takes at each feed will vary, so 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 that if a baby is not gaining weight, they may need to be fed more often or given larger amounts of milk at each feed, or they may be ill. If a mother is worried, she should take her baby to a clinic or health facility where she can get her baby examined.

We should tell a mother who is using replacement feeding to make sure all equipment used in making up feeds or giving them is kept scrupulously clean. This will help reduce the risk of her baby becoming ill.

## Supporting a woman living with HIV who decides to use replacement feeding when the national health authority recommendation is to breastfeed

A woman living with HIV who chooses to use replacement feeding rather than to follow the national recommendation of breastfeeding, needs skilled counselling and support to safely replacement feed. She needs to consider her particular circumstances and be aware of the positive and the negative aspects of her decision.

There may be no obligation on the national infant feeding authority to provide a mother with formula milk for her baby. This may mean making the mother and her family aware of the financial implications of not following the national authority decision.

## Helping a mother to use replacement feeding when she stops breastfeeding

A mother living with HIV who is breastfeeding, and stops before her baby is 12 months of age, will need to give replacement feeds.The following chart outlines recommendations from the *Guidelines on HIV and infant feeding 2010*.[1] When mothers living with HIV stop breastfeeding, they must provide their babies with safe, adequate replacement feeds to enable normal growth and development.

75/4

### Feeding a baby when breastfeeding stops

**For babies aged less than 6 months:**

- Commercial infant formula milk if home conditions are met
- Expressed heat-treated breast milk

**Home-modified animal milk is not recommended in the first 6 months**

**For children aged 6 months and older:**

- Commercial infant formula milk if home conditions are met
- Animal milk as part of a diet providing adequate micronutrient intake; boil for infants aged under 12 months
- Meals, including milk-only, other foods and combination of milk and other foods, should be provided four or five times per day

All children need complementary foods from 6 months of age

As we discussed earlier, the conditions that should be in place before commercial infant formula milk is given to a baby also apply to mothers who stop breastfeeding and then use replacement feeding.

The mother should stop breastfeeding gradually over a period of 1 month, and gradually introduce replacement feeding as we discussed in Session 74: Supporting women living with HIV to breastfeed.

If possible, this should be planned well in advance.

When stopping breastfeeding, begin by expressing some breast milk and replacing one breastfeed with a cup feed of breast milk.

Gradually increase the number of cup feeds given, until the baby is taking all cup feeds of expressed breast milk.

Then replace the breast milk with formula milk or cow's milk, depending upon the age of the baby.

Skilled counselling and support, to safely give replacement feeds, should be available to all mothers who stop breastfeeding early. The mother should be shown how to make up formula milk and should have the opportunity to demonstrate back to a health worker, to be certain she is making it up correctly.

A mother needs to know if a national health authority will provide commercial infant formula milk if she stops breastfeeding for any reason. If not, she needs to be aware of the financial implications of having to provide it herself.

[1] WHO, UNICEF, UNAIDS. Guidelines on HIV and infant feeding 2010: principles and recommendations for infant feeding in the context of HIV and a summary of evidence. Geneva: World Health Organization; 2010 (http://apps.who.int/iris/bitstream/10665/44345/1/9789241599535_eng.pdf).

# Notes

# SESSION 76

## Communication and support of infant feeding in the context of HIV

### Objectives

After completing this session, participants will be able to:

- describe the role of the infant feeding counsellor (in the health facility and in the community) in relation to HIV
- describe a logical sequence for supporting women living with HIV
- use appropriate communication skills to provide information

### Introduction

This session is about how to communicate with pregnant women and mothers, in order to give them information about all aspects of infant feeding, including HIV and the special role of the health workers, particularly the infant feeding counsellor, in providing appropriate support to women living with HIV.

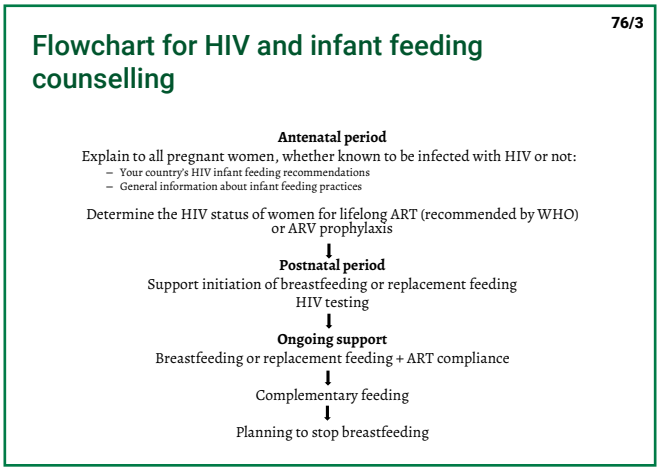
### The role of the infant feeding counsellor in the health centre and in the community in relation to HIV

The role of the infant feeding counsellor in relation to HIV has changed in recent years, particularly during the antenatal and postnatal periods.

To carry out this new role requires specific knowledge and a different use of existing communication skills.

Infant feeding counsellors are no longer expected to help individual women living with HIV to make the choice between breastfeeding and replacement feeding for their babies.

They are now expected to concentrate on supporting women living with HIV to use the one method of infant feeding recommended by the national health authority to improve the HIV-free survival of infants exposed to HIV and the health of mothers living with HIV. All mothers living with HIV should be provided with skilled counselling and support for infant feeding, whether or not they opt to follow the national national health authority recommendations on infant feeding.




This simple flowchart will help. It guides you through a sequence of key events throughout the antenatal and postnatal periods when women, who may or may not be HIV infected, need information and support.

The flowchart starts in the antenatal period and continues until a mother plans to stop breastfeeding or no longer needs support for using replacement feeding.

Communicating information about HIV and infant feeding should begin early in the antenatal period. This is an ideal time to give up-to-date information about infant feeding to **all** pregnant women.

Therefore, in the context of HIV, the infant feeding information should also include:

- the national health authority recommendation on infant feeding for women living with HIV, that is, whether in (Country) women living with HIV should breastfeed with antiretroviral intervention or avoid all breastfeeding and give replacement feeds
- specific reference to infant feeding practices that differ for women who are known to be infected with HIV, for example, how long it is recommended that a woman living with HIV should breastfeed her baby, or what kind of replacement feeding is suitable for a baby for the first 6 months
- encouraging women to be tested for HIV if they do not know their HIV status
- reassurance that all women will be fully supported, however they feed their babies.

A group talk, while pregnant women attend the antenatal clinic, provides an ideal opportunity to give information on infant feeding to a large group. If any woman needs further information or help, she can discuss this individually with her health worker.

The next activity on the flowchart is to encourage pregnant women to be tested for HIV, if they do not already know their status. This can be mentioned in a group talk but the personal nature of HIV testing means it is best discussed in detail individually with a health worker.

Make sure women are told the advantages of knowing their HIV status and being tested.

If a women tests positive for HIV:

- she and her baby can be given appropriate antiretroviral therapy (ART)
- with ART intervention, her baby has a much lower risk of being infected with HIV during pregnancy, childbirth or breastfeeding
- the mother is likely to be healthier and survive for longer
- she will receive counselling and support on appropriate infant feeding practices.

If she tests negative for HIV:

- she will be counselled to remain negative
- she will receive counselling and support on appropriate infant feeding practices.

Testing and counselling may take place in the facility where you work, but HIV testing is not available everywhere. You should know where the nearest HIV testing and counselling centre is and be able to refer a woman to it, if she agrees or wants to be tested.

A woman may be very anxious when waiting for her test results, so find out whether she has any concerns you can help her with.

A baby born to a woman who is unsure of her HIV status should be exclusively breastfed for 6 months and then breastfed with adequate complementary feeding for at least 2 years, as for the general population. She may need reassurance that breastfeeding is the safest option for her baby. She should be strongly encouraged to be tested for HIV.

A woman may believe she is HIV infected even though she has a negative test result. She needs counselling to discuss her worries and should be encouraged to breastfeed.

For women who have been tested and who are HIV negative, talk to them about the risks of becoming infected during pregnancy or while breastfeeding. Suggest that they have a repeat test, if they think they have been exposed to HIV since the last test. Talk to them about the risks of becoming infected during pregnancy or while breastfeeding.

The next activity is supporting the initiation of breastfeeding or use of replacement feeding. For the woman who is going to breastfeed, this means ensuring the following topics have been discussed or demonstrated:

- skin to-skin contact
- starting breastfeeding within the first hour after birth
- the importance of colostrum
- the importance of exclusive breastfeeding
- good attachment and positioning
- the expression of breast milk.

For the woman who will be using replacement feeding, discuss:

- skin-to-skin contact
- how to make up feeds correctly.

Supporting initiation will also include :

- making sure that, at birth, babies are well dried, given to their mothers to hold skin-to-skin, and covered, whether or not the mother has decided to breastfeed
- ensuring that, at birth, babies are given appropriate antiretroviral drugs if their mothers are living with HIV.

Ongoing support means:

- helping mothers to maintain breastfeeding (exclusive in the first 6 months and continued after that, with complementary feeding) while taking ART regularly, or to maintain replacement feeding
- for the breastfeeding mother, this will include discussing and showing the mother what to do if the she has to stop breastfeeding temporarily and heat-treat her expressed breast milk or find a wet nurse, as discussed in Sessions 74 and 78
- if the mother is using replacement feeding, she will need support to feed in public or overcome prejudice if she is in a culture where breastfeeding is the normal practice
- ensuring babies start complementary foods from 6 months alongside breastfeeding or using replacement feeding; and, for mothers who are breastfeeding, planning for when they will stop, and supporting them to stop gradually.

Mothers living with HIV should also plan to have their babies tested according to the national early infant diagnosis programme or national testing protocol for HIV, regardless of the infant feeding method used. This may include virological testing using nucleic acid testing (DNA-PCR NAT) at 4–6 weeks (or at birth, if feasible); rapid diagnostic tests (RDTs) at 9 months of age if not breastfeeding; or RDTs or serological assays at 18 months of age (or when age appropriate, such as 1 month after breastfeeding stops).

It is recommended for breastfeeding women who believe they are infected to have HIV testing.

It is important to emphasize that whatever infant feeding decision is made by a national health authority for mothers who are living with HIV and their babies, it should not influence the infant feeding practices of mothers who are not HIV positive or who do not know their HIV status. They should all be encouraged and supported to breastfeed.

# Notes

# SESSION 77

## Supporting national health authority infant feeding recommendations for women living with HIV

### Objectives

After completing this session, participants will be able to:

- list ways to ensure implementation of their national health authority infant feeding recommendations
- list ways to support implementation of the recommendations in their settings

### Introduction

As health workers, we should help to implement our national health authority infant feeding recommendations.

The national recommendations have been developed considering the epidemiology of HIV in your country and the possibilities of support to the infant feeding recommendations selected.

In this session, we will briefly review the national health authority infant feeding recommendations for your country and compare the national recommendations with the 2010 and 2016 HIV and infant feeding recommendations on antiretroviral therapy.

77/2

**Overview of (Country) National Health Authority infant feeding recommendations for mothers living with HIV: breastfeeding**

- Key points of national infant feeding recommendations
- National provision of ART for women living with HIV
- National conditions relating to ART, e.g. length of time available
- What support is available for mothers living with HIV
- Provision of follow-up for mothers living with HIV and their babies
- What support is available for mothers who choose not to follow national recommendations, e.g. free commercial infant formula milk
- Other

77/3

**Overview of (Country) National Health Authority infant feeding recommendations for mothers living with HIV: replacement feeding**

- Key points of national infant feeding recommendations
- Free provision of commercial infant formula milk?
- Conditions relating to infant formula milk, e.g. length of time available; clean water; feeding bottles/cups; fuel
- What support is provided for mothers living with HIV
- Provision of follow-up for mothers living with HIV and their babies
- What support is available for mothers who choose not to follow national recommendations, e.g. provision of ART and for how long
- Other

# Notes

# SESSION 78

## Practical session: Preparation of milk feeds for babies who require expressed breast milk or replacement feeding

### Objectives

After completing this session, participants will be able to:

- demonstrate how to prepare commercial infant formula milk
- demonstrate how to heat-treat expressed breast milk
- calculate the amount of commercial infant formula milk needed for an infant who is not breastfed
- translate measures into a mother's home utensils

### Introduction

Helping a mother to prepare feeds or heat-treat expressed breast milk is easier if you have done it yourself, using equipment similar to that which the mother has at home or can easily purchase in a market.

Knowing what is needed and how long it takes to prepare milk feeds is part of the information that you will need to give to mothers.

In this session, participants are going to practise preparing commercial infant formula milk and heat-treating expressed breast milk.

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?

You will follow the instruction sheet to prepare the formula milk feeds.

## How to prepare commercial infant formula milk*

1. Before you begin to prepare a commercial infant formula milk, clean and disinfect the surface you are going to use.
2. Wash your hands with soap and water and dry them using a clean and dry cloth or a single-use paper napkin.
3. Only make enough commercial infant formula milk for one feed at a time.
4. Make …… mL for each feed. Feed the baby …… times every 24 hours.
5. Boil a sufficient volume of safe clean water:
   - if using an automatic kettle, wait until the kettle switches itself off
   - if using a pan of water, make sure the water is bubbling well before you turn the heat off
   - **never use a microwave to boil the water because the heat may be unevenly distributed**.
6. Allow the water to cool. Do not leave it longer than 30 minutes. The water should be at least 70 °C when it is used, not cooler. As mothers are not likely to have thermometers to measure the water temperature, tell them to use the waer within 30 minutes of it boiling.
7. Be careful not to scald yourself. Pour the appropriate amount of boiled water into a clean and sterilized feeding cup (or bottle). Always check to see that the water level is correct.
8. Loosely fill the spoon or measure (provided with the tin) with the milk powder and level it off, using the flat dry edge of a knife or level provided. Do not squash the powder down in the spoon.
9. Add the exact amount of formula powder to the water, as instructed on the label of the tin. Adding more or less formula powder than insructed can make the baby ill.
   - If using a bottle, gently shake the contents until they are thoroughly mixed.
   - If using a feeding cup, mix thoroughly with a sterlized spoon.
10. Immediately after preparation, quickly cool the feeds to a feeding temperature, by holding the bottle or feeding cup under a cold running tap.
11. Dry the outside of the feeding cup or bottle.
12. Check the feeding temperature of the feed.
13. Feed the baby using a cup (or bottle).
14. Discard any feed not used within 2 hours.
15. Wash the utensils.

*These instructions are in the *Guidance on the use of counselling cards*, Counselling card 11.

## The amount of commercial infant formula milk needed for an infant who is not breastfed

This table shows approximately how much commercial infant formula milk 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.

**APPROXIMATE AMOUNTS OF COMMERCIAL INFANT FORMULA MILK NEEDED BY MONTH**

| Month | Number of 500 g tins needed per month | Number of 450 g tins needed per month | Number of 400 g tins needed 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 (approximately) | 40 × 500 g (20 kg) | 44 × 450 g (approx 20 kg) | 51 × 400 g (approx 20 kg) |

# Translate measures into a mother's home utensils

Using the measure that you have decided is most suitable, continue with these points to demonstrate measuring the water, and marking the mother's container (see **Fig. 78.1**). It does not matter what volumes you demonstrate – it is the principle of making a measure for a mother that is important.

Decide what volume you are going to measure. For this example, we will use 60 mL for a commercial infant formula feed for a baby from birth to 1 month.

1. Put water into your measure, to reach the 60 mL mark.
2. Pour the 60 mL water from your measure into the mother's container.
3. 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.

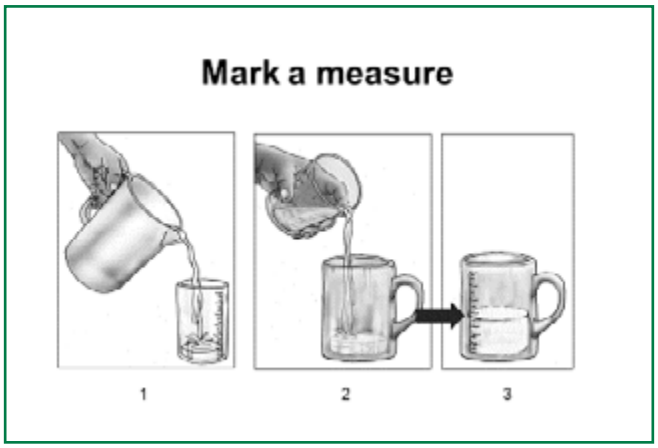



**Fig. 78.1** Translating a measure into a mother's utensils

## How to heat-treat expressed breast milk*

1. Before you begin to express or heat-treat your expressed breast milk, clean and disinfect the surface you are going to use.
2. Wash your hands with soap and water and dry them using a clean and dry cloth or a single-use paper napkin.
3. Before you begin to heat-treat the breast milk, wash the utensils you will use to express and heat-treat the milk. Use clean warm water and soap.
4. Boil these utensils after washing them.
5. Express enough milk for that individual feed, into a suitable container.
6. Put your expressed breast milk, between 50 mL and 150 mL, into a small heatproof jar. If you have more than 150 mL, use two jars. Do not overfill the jar.
7. Place the jar of milk into the pan of water; the water should be about two fingers' width above the level of the milk, so that all the milk is heated.
8. Heat the water in the pan until it reaches a "rolling" boil; this is when the water has large bubbles. This takes a very short time.
9. Remove the jar from the boiling water immediately after the water comes to the boil (taking care not to burn yourself).
10. Put the jar in the container of cool water, or let it stand free to cool until it reaches room temperature.
11. Put a lid on the jar, to protect the milk.
12. Use the milk within 1 hour.

*These instructions are in the *Guidance on the use of counselling cards*, Counselling card 10.

# Notes

# Notes (contd)

# MODULE 8

## Follow-up after training

# SESSION 79

## Follow-up after training

### Objectives

After completing this session, participants will able to:

- describe the contents and arrangement of the table of competencies they are expected to acquire
- describe the components of the follow-up session
- list the tasks they should complete for the follow-up session
- describe the linkages between the follow-up session and ongoing supportive supervision/mentoring

### Introduction

You will receive a follow-up session between 1 and 3 months after this training course. This follow-up is not an exam or a test. It is designed to help you to continue to practise the competencies expected of participants, and to help you with any difficulties you may have come across in infant feeding when you return to your facilities.

The trainer who comes to conduct this follow-up session might be one of the trainers who has facilitated on this course, or another trainer whom you may not have met. However, it will be someone who is experienced in infant feeding counselling and who is a trainer on this course.

### Competencies

On pages 579–584 of your *Participant's manual*, you will see a table of competencies. To become competent in something, you need to have the relevant knowledge and also the relevant skills. The table has three columns – a column for the competency, a column for the knowledge required and a column for the skills required. Most people find that they obtain the "knowledge" part of the competency more quickly than the "skills" part.

You will see that the competencies at the top of the table are essential for managing many situations. For example, the counselling skills that you have learnt in this course will be used in most situations. As you go further down the table, you will see a list of situations where you have to correctly apply a number of the competencies that are higher up in the table.

You may feel that you have already acquired much of the **knowledge** listed in the table from attending this course. However, you may feel that you need much more practice to develop the **skills** listed – for example the skill to cup-feed a low-birth-weight baby or the skill to use counselling skills to gather information on complementary feeding using the Job aid: Food intake – 6 up to 24 months.

When you go back to your facility, you will have the opportunity to practise many of these skills. The more you practise, the more skilled you will become.

### The follow-up session

The follow-up session will take one full day. The trainer who is coming to assess you will make arrangements with your facility for this follow-up to occur.

The morning will be practical sessions and the afternoon will be used to go over written exercises and to discuss positive experiences and any difficulties you have had. This is the time to discuss any difficult cases you may have seen.

If there are a few of you at one facility, the afternoon discussion can take place together, but the written exercises will be individual.

The competencies that you will be assessed on in the morning are all in the table you have in your *Participant's manual*. You may be taken to the postnatal ward and asked to teach a mother with a newborn baby to position and attach her baby. Or you may be asked to counsel a mother living with HIV on infant feeding options. Or you may be asked to plot and interpret a child's growth chart.

## Preparation for the follow-up session

There are some things you need to prepare for the follow-up session.

1. Complete the exercises on pages 591–602 of your *Participant's manual*. These are all exercises on breastfeeding difficulties, so that you can practise applying the knowledge and counselling skills that you have learnt. Complete your answers in pencil in your *Participant's manual*, as you have been doing during this course. During your follow-up session, the trainer will go over these exercises individually with you.
2. Complete the LOG OF SKILLS PRACTISED on pages 585–586 of your *Participant's manual*. This log has three columns. There is one column for the date, one column for skills practised, and one column for any comments. When you practise a skill at your facility, you should list the skill and write the date next to it and any comments. Remember the list of skills that you are expected to learn are on pages 579–584 of your *Participant's manual*.

   So, for example, on 1 July 2020 you practise the skill of assessing a breastfeed using the JOB AID: BREASTFEED OBSERVATION. You would write the date in the first column and the skill in the second column.

   Perhaps you found that the mother was not holding her breast in the recommended way, but was using the scissor grip. You might have suggested to her that she tries to hold her breast in a different way. Note this down in the third column.

   Make particular notes of any difficult cases you have had to deal with, using the LOG OF DIFFICULTIES EXPERIENCED on pages 587–588 of your *Participant's manual*, so that you can discuss these with your trainer when they come for follow-up.
3. Finally, you can use the LOG OF DIFFICULTIES experienced to note down any other difficulties you have experienced in trying to implement what you have learnt during the course. For example, you may have had difficulty counselling mothers about complementary feeding practices because the clinic in which you work is too crowded and there are too few staff. You may have had difficulties trying to help mothers who have had a caesarean section to give the first breastfeed because their babies are kept in the nursery after delivery. These difficulties can be discussed with your trainer at the follow-up session.

During the afternoon of the follow-up session, the trainer will look at your log of skills with you and see which skills you have been able to practise.

The follow-up session is not the end of learning. You will need to continue applying the knowledge and practising the skills even after you have completed the follow-up session.

There are different ways in which this may happen in your facility and your supervision/mentoring system. You may use several of these:

- You can monitor your own progress using the SELF-ASSESSMENT IN INFANT AND YOUNG CHILD FEEDING: COMPETENCY PRACTICE AND PROGRESS TRACKING FORM provided at the end of this session.
- You may partner with a peer (a fellow health-worker counsellor), to observe each other's counselling sessions and provide feedback to each other.
- Your supervisor may organize group meetings of counsellors, so that you can discuss what is going well and where you are having challenges, and discuss special cases.
- Your supervisor may work with you individually on an ongoing basis, acting as a mentor to help you monitor your progress in providing support to individual mothers/caregivers, or to groups of women; responding to requests you may have for special assistance; and occasionally observing your work with a mother/caregiver and providing feedback.
- Your mentor/supervisor may also provide on-the-spot refresher training to individual health workers, and to groups for issues that a larger number of health workers find challenging.

The way in which this ongoing mentoring is provided will vary from facility to facility, depending on the nature of the supervision/mentoring system. The follow-up after training is the first step in ongoing support, to help you become increasingly skilled in the competencies you will use in your everyday work with mothers/caregivers and their infants and young children.

# Competencies participants will be expected to master during training and follow-up

| Competency | Knowledge | Skills |
|---|---|---|
| **Counselling** | | |
| C1. Use Listening and learning skills to counsel a mother or caregiver | • List the six Listening and learning skills<br>• Give an example of each skill | • Use the Listening and learning skills appropriately when counselling a mother or caregiver on feeding an infant or young child |
| C2. Use Skills for building confidence and giving support to counsel a mother or caregiver | • List the six Skills for building confidence and giving support<br>• Give an example of each skill | • Use the Skills for building confidence and giving support appropriately when counselling a mother or caregiver on feeding an infant or young child |
| **Breastfeeding basic** | | |
| BF1. Assess a breastfeed | • Describe the relevant anatomy and physiology of the breast and suckling action of the baby<br>• Explain the contents and arrangement of the Job aid: Breastfeed observation | • Recognize signs of good and poor attachment and effective suckling, according to the Job aid: Breastfeed observation<br>• Assess a breastfeed using the Job aid: Breastfeed observation<br>• Recognize a mother who needs help, using the Job aid: Breastfeed observation |
| BF2. Help a mother to position herself and her baby for breastfeeding | • Explain The four key signs of good positioning<br>• Describe how a mother should support her breast for feeding<br>• Explain the main positions for the mother: sitting and lying down<br>• Explain different ways to hold the baby: underarm and across | • Recognize good and poor positioning, according to The four key signs of good of positioning<br>• Help a mother to position her baby using The four key signs of good positioning, in different positions |
| BF3. Help a mother to attach her baby to the breast | • Explain The four key signs of good attachment | • Help a mother to get her baby to attach to the breast once they are well positioned |
| BF4. Explain to a mother about the optimal pattern of breastfeeding | • Describe the physiology of breast-milk production and flow<br>• Describe unrestricted (or demand) feeding, and implications for the frequency and duration of breastfeeds, and using both breasts alternately | • Explain to a mother about the optimal pattern of breastfeeding and demand feeding |
| BF5. Help a mother to express her breast milk by hand | • List the situations when expressing breast milk is useful<br>• Describe the relevant anatomy of the breast and physiology of lactation<br>• Explain how to stimulate the oxytocin reflex<br>• Describe how to select and prepare a container for expressed breast milk<br>• Describe how to store expressed breast milk | • Explain to a mother how to stimulate her oxytocin reflex<br>• Rub a mother's back to stimulate her oxytocin reflex<br>• Help a mother to learn how to prepare a container for expressed breast milk<br>• Explain to a mother the steps of expressing breast milk by hand<br>• Observe a mother expressing breast milk by hand, and help her if necessary |
| BF6. Help a mother to cup-feed her baby | • List the advantages of cup-feeding<br>• Estimate the volume of milk to give a baby according to weight<br>• Describe how to prepare a cup hygienically for feeding a baby | • Demonstrate to a mother how to prepare a cup hygienically for feeding<br>• Practise with a mother how to cup-feed her baby safely<br>• Explain to a mother the volume of milk to offer her baby and the minimum number of feeds in 24 hours |
| BF7. Take a feeding history for an infant aged from 0 up to 6 months | • Describe the contents and arrangement of the Job aid: Feeding history – 0 up to 6 months | • Take a feeding history, using the Job aid: Feeding history – 0 up to 6 months and appropriate counselling skills, according to the age of the child |
| BF8. Counsel a pregnant woman about breastfeeding | • Discuss why exclusive breastfeeding is important for the first 6 months<br>• List the special properties of colostrum and reasons why it is important | • Use counselling skills appropriately with a pregnant woman, to discuss the advantages of exclusive breastfeeding<br>• Explain to a pregnant woman how to initiate and establish breastfeeding after delivery, and the optimal breastfeeding pattern<br>• Apply competencies C1, C2 and BF4 |

| Competency | Knowledge | Skills |
|---|---|---|
| BF9. Help a mother to initiate breastfeeding | • Discuss the importance of early contact after delivery and of the baby receiving colostrum<br>• Describe how health-care practices affect initiation of exclusive breastfeeding | • Help a mother to initiate skin-to-skin contact immediately after delivery and for at least 1 hour, and to recognize when her baby is ready to breastfeed<br>• Apply competencies C1, C2, BF2 and BF3 |
| BF10. Support exclusive breastfeeding for the first 6 months of life | • Describe why exclusive breastfeeding is important<br>• Describe the support that a mother needs to sustain exclusive breastfeeding | • Apply competencies C1, C2 , BF1 to BF7 and GA1 appropriately |
| BF11. Help a mother to sustain breastfeeding up to 2 years of age or beyond | • Describe the importance of breast milk in the second year of life | • Apply competencies C1, C2, BF7 and GA1, including explaining the value of breastfeeding up to 2 years and beyond |
| BF12. Help a mother with "not enough milk" | • Describe the common reasons why a baby may have a low intake of breast milk<br>• Describe the common reasons for apparent insufficiency of milk<br>• List the reliable signs that a baby is not getting enough milk | • Apply competencies C1, BF1, BF7 and GA1 to decide the cause<br>• Apply competencies C2 and BF2 to BF6 to overcome the difficulty, including explaining the cause of the difficulty to the mother |
| BF13. Help a mother with a baby who cries frequently | • List the causes of frequent crying<br>• Describe the management of a crying baby | • Apply competencies C1, BF1, BF7 and GA1 to decide the cause<br>• Apply competencies C2 and BF2 to BF4 to overcome the difficulty, including explaining the cause of the difficulty to the mother<br>• Demonstrate to a mother the positions to hold and carry a colicky baby |
| BF14. Help a mother whose baby is refusing to breastfeed | • List the causes of breast refusal<br>• Describe the management of breast refusal | • Apply competencies C1, BF1, BF7 and GA1 to decide the cause<br>• Apply competencies C2, BF2 and BF3 to overcome the difficulty, including explaining the cause of the difficulty to the mother<br>• Help a mother to use skin-to-skin contact to help her baby accept the breast again<br>• Apply competencies BF5 and BF6 to maintain production of breast milk and to feed the baby meanwhile |
| BF15. Help a mother who has flat or inverted nipples | • Explain the difference between flat and inverted nipples and about protractility<br>• Explain how to manage flat and inverted nipples | • Recognize flat and inverted nipples<br>• Apply competencies C2, BF2, BF3, BF5 and BF6 to overcome the difficulty<br>• Show a mother how to use the syringe method for the treatment of inverted nipples |
| BF16. Help a mother with engorged breasts | • Explain the differences between full and engorged breasts<br>• Explain the reasons why breasts may become engorged<br>• Explain how to manage breast engorgement | • Recognize the difference between full and engorged breasts<br>• Apply competencies C2 and BF2 to BF5 to manage the difficulty |
| BF17. Help a mother with sore or cracked nipples | • List the causes of sore or cracked nipples<br>• Describe the relevant anatomy and physiology of the breast<br>• Explain how to treat *Candida* infection of the breast | • Recognize sore and cracked nipples<br>• Recognize *Candida* infection of the breast<br>• Apply competencies C2, BF1 to BF3, BF5 and BF6 to manage these conditions |

| Competency | Knowledge | Skills |
|---|---|---|
| BF18. Help a mother with mastitis | • Describe the difference between engorgement and mastitis<br>• List the causes of a blocked milk duct<br>• Explain how to treat a blocked milk duct<br>• List the causes of mastitis<br>• Explain how to manage mastitis, including indications for antibiotic treatment and referral<br>• List the antibiotics to use for infective mastitis<br>• Explain what is different when treating mastitis in a mother living with HIV following the national health authority programme | • Recognize mastitis and refer if necessary<br>• Recognize a blocked milk duct<br>• Manage a blocked duct appropriately<br>• Manage mastitis appropriately using competencies C1, C2 and BF1 to BF6, and rest, analgesics and antibiotics if indicated. Refer to the appropriate level of care<br>• Refer mastitis in a mother living with HIV to the appropriate level of care, according to the national health authority programme |
| BF19. Help a mother to breastfeed a low-birth-weight or sick baby | • Explain why breast milk is important for a low-birth-weight or sick baby<br>• Describe the different ways to feed breast milk to a low-birth-weight baby<br>• Estimate the volume of milk to offer a low-birth-weight baby, per feed and per 24 hours | • Help a mother to feed her low-birth-weight baby appropriately<br>• Apply competencies, especially BF5, BF6 and GA1, to manage these infants appropriately<br>• Explain to a mother the importance of breastfeeding during illness and recovery |
| **Breastfeeding advanced** (competencies, knowledge and/or skills acquired in addition to those listed in **Breastfeeding basic**) | | |
| BFA1. Assess a breastfeed | • Describe the physiology of the lactation hormones<br>• Describe the suckling action of the baby when well attached and when poorly attached | • Recognize effective and ineffective suckling<br>• Recognize signs of the oxytocin reflex |
| BFA2. Help a mother to position herself and her baby for breastfeeding | • Support the mother's breast for feeding | • Show a mother how to hold and position her baby, by demonstrating with a doll<br>• Help a mother to find a comfortable position for breastfeeding, sitting or lying down |
| BFA3. Help a mother to attach her baby to the breast | • Explain the common mistakes of attachment | • Help the mother to recognize whether the baby is well attached or not |
| BFA4. Take a feeding history for an infant aged from 0 up to 6 months | | • Use the feeding history to help decide whether the mother has a difficulty with breastfeeding, and how to counsel her |
| BFA5. Inform women about optimal infant feeding | • Explain the recommendations for optimal infant feeding up to 2 years or beyond<br>• List the advantages of exclusive breastfeeding for 6 months and the risks of not breastfeeding<br>• List the advantages of continued breastfeeding with complementary feeding for up to 2 years or beyond<br>• Describe the differences between breast milk and infant formula milk | • Talk to women individually or in groups about optimal infant feeding and the risks of unnecessary artificial feeding |
| BFA6. Counsel a pregnant woman about breastfeeding | • Explain the importance of skin-to-skin contact immediately after delivery and the initiation of breastfeeding within 1 hour | • Discuss the importance of skin-to-skin contact immediately after delivery<br>• Explain how a baby initiates breastfeeding within about an hour after birth, and about colostrum<br>• Explain about good positioning and attachment and an optimal feeding pattern to establish breastfeeding<br>• Explain about health-care practices and the help that the mother will receive after delivery<br>• Apply competencies C1, C2 and parts of BFA2, BFA3 and BFA5 |
| BFA7. Help a mother and baby to initiate breastfeeding within an hour after delivery | • Describe the procedure of putting the baby in skin-to-skin contact immediately after delivery<br>• Describe how a baby moves to the breast and attaches by themself, and how to help the baby if needed | • Put a baby onto the mother's chest prone in skin-to-skin contact immediately after delivery, for at least 1 hour undisturbed<br>• Explain to the mother how she can gently help the baby to the breast if needed<br>• Apply competencies C1, C2, BFA2 and BFA3 |

| Competency | Knowledge | Skills |
|---|---|---|
| BFA8. Support exclusive breastfeeding for the first 6 months of life | • Describe the concept of the Seven+ contacts to sustain breastfeeding and the use of the Job aid: Postnatal contacts and the Job aid: Ongoing contacts<br>• Describe how the child's growth chart can help you to support breastfeeding | • Ensure that a mother receives postnatal help within 6 hours after delivery (in hospital) or within 24 hours (after home delivery), to ensure good attachment and feeding pattern, using the Job aid: Postnatal contacts<br>• Ensure at least three additional postnatal contacts within 8 weeks, using the Job aid: Postnatal contacts<br>• Apply competencies C1, C2, BFA1 to BFA4 and GA1 appropriately |
| BFA9. Help a mother to continue breastfeeding up to 2 years of age or beyond | • Describe the importance of continuing breastfeeding, with complementary feeding, from the age of 6 to 24 months<br>• Explain the pattern of continued breastfeeding – as often as the child wants, day and night<br>• List the opportunities to support continued breastfeeding at all other contacts with the mother and child (growth monitoring, immunization, family planning) | • Explain the value of breastfeeding up to 2 years and beyond, while giving complementary foods<br>• Counsel the mother about breastfeeding at all other contacts, using the Job aid: Ongoing contacts<br>• Explain that the child should continue to breastfeed as often as they want, day and night<br>• Apply competencies C1, C2, BFA4 and GA1 |
| **Complementary feeding** | | |
| CF1. Teach a mother the 10 Key messages for complementary feeding | • List and explain the six Key messages about what to feed to an infant or young child to fill the nutrition gaps (Key messages 1–6)<br>• Explain when to use the Food consistency pictures, and what each picture shows<br>• List and explain the two Key messages about quantities of food to give to an infant or young child (Key messages 7 and 8)<br>• List and explain the Key message about how to feed an infant or young child (Key message 9)<br>• List and explain the Key message about how to feed an infant or young child during illness (Key message 10) | • Explain to a mother the six Key messages about what to feed to an infant or young child to fill the nutrition gaps (Key messages 1–6)<br>• Use the Food consistency pictures appropriately during counselling<br>• Explain to a mother the two Key messages about quantities of food to give to an infant or young child (Key messages 7 and 8)<br>• Explain to a mother the Key message about how to feed an infant or young child (Key message 9)<br>• Explain to a mother the Key message about how to feed an infant or young child during illness (Key message 10) |
| CF2. Help mothers whose babies are aged over 6 months to give complementary feeds | • List the gaps that occur after 6 months when a child can no longer get enough nutrients from breast milk alone<br>• List the foods that can fill the gaps<br>• Describe how to prepare feeds hygienically<br>• List recommendations for feeding a non-breastfed child, including the quantity, quality, consistency, frequency and method of feeding at different ages | • Apply competencies C1, C2, BF7 and GA1<br>• Use the Job aid: Food intake – 6 up to 24 months to learn how a mother is feeding her infant or young child<br>• Identify the gaps in the diet, using the Job aid: Food intake – 6 up to 24 months and the Reference tool: Food intake – 6 up to 24 months<br>• Explain to a mother what foods to feed her child to fill the gaps, applying competency CF1<br>• Demonstrate preparation of a meal for an infant or young child at different ages (8, 10, 15 months)<br>• Practise with a mother how to prepare meals for her infant or young child<br>• Show a mother how to prepare feeds hygienically<br>• Explain to a mother how to feed a non-breastfed child |
| CF3. Help a mother with a breastfed child aged over 6 months who is not growing well | • Explain feeding during illness and recovery<br>• Describe how to prepare feeds hygienically | • Apply competency BF11 to help a mother to sustain breastfeeding up to 2 years of age or beyond<br>• Apply competencies C1, C2, BF7, CF1 and GA1<br>• Explain to a mother how to feed her child during illness and recovery<br>• Demonstrate to a mother how to prepare feeds hygienically<br>• Recognize when a child needs follow-up and when a child needs referral |

| Competency | Knowledge | Skills |
|---|---|---|
| CF4. Help a mother with a non-breastfed child aged over 6 months who is not growing well | • Explain about the special attention to give to children who are not receiving breast milk<br>• List the recommendations for feeding a non-breastfed child, including the quantity, quality, consistency, frequency and method of feeding<br>• Explain feeding during illness and recovery<br>• Describe how to prepare feeds hygienically | • Apply competencies C1, C2, BF7, CF1 and GA1<br>• Explain to a mother how to feed a non-breastfed child<br>• Explain to a mother how to feed her child during illness and recovery<br>• Demonstrate to a mother how to prepare feeds hygienically<br>• Recognize when a child needs follow-up and when a child needs referral |
| **Growth assessment** | | |
| GA1. Plot and interpret a growth chart | • Explain the meaning of the standard curves<br>• Describe where to find the age and the weight of a child on a growth chart<br>• Describe where to find the age and the length/height of a child on a growth chart | • Plot the weight of a child on a growth chart<br>• Plot the length/height of a child on a growth chart<br>• Interpret a child's individual growth curve |
| GA2. Measure weight, length and height | • Describe how to measure weight, length and height<br>• Determine when to measure length and when to measure height | • Measure the weight of a young child held by a mother and an older child alone<br>• Measure length correctly<br>• Measure height correctly |
| GA3. Plot single points on various growth charts | • Explain how to place a point on a graph combining information from two axes<br>• Describe where to find the age, weight and length/height on various growth-indicator charts | • Plot weight and length/height points on weight-for-age and length/height-for-age charts<br>• Plot weight points on weight-for-length/height charts |
| GA4. Interpret single points on various indicator charts | • Identify growth problems, based on points plotted on a single indicator chart<br>• Define a growth problem, using a combination of indicator charts | • Identify children who are stunted, underweight, wasted and overweight, based on points plotted on several indicator charts |
| GA5. Interpret growth trends using a combination of indicators | • Interpret trends on growth charts | • Identify a child who is growing normally, has a growth problem or is at risk of a growth problem |
| GA6. Counsel a mother whose child has undernutrition | • Describe causes of stunting, wasting and underweight<br>• Involve the mother in identifying possible causes of her child's undernutrition<br>• Find age-appropriate advice for the problem identified<br>• Set goals for improving the growth of an undernourished child | • Identify the key sections of the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION<br>• Use the JOB AID: INVESTIGATING CAUSES OF UNDERNUTRITION appropriately (find the correct pages for the child's age, complete the investigation before counselling, counsel using age-appropriate recommendations)<br>• Check the mother's understanding, using checking questions<br>• Involve the mother in setting goals for improved growth |
| GA7. Counsel a mother whose child is overweight | • Describe causes of overweight/obesity<br>• Involve the mother in identifying possible causes of her child's overweight<br>• Set goals for improving the growth of an overweight child | • Identify the key sections of the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT<br>• Use the JOB AID: INVESTIGATING CAUSES OF OVERWEIGHT appropriately (find the correct pages for the child's age, complete the investigation before counselling, counsel using age-appropriate recommendations)<br>• Check the mother's understanding, using checking questions<br>• Involve the mother in setting goals for improved growth |

| Competency | Knowledge | Skills |
|---|---|---|
| **HIV and infant feeding** | | |
| HIV1. Counsel a woman living with HIV antenatally about the infant-feeding practices recommended by the national health authority | • Explain the risk of mother-to-child transmission (MTCT) of HIV<br>• Outline approaches that can prevent MTCT through safer infant feeding practices<br>• State infant feeding recommendations for women living with HIV, those who are HIV negative or those who do not know their HIV status | • Apply competencies C1 and C2 to counsel a woman living with HIV |
| HIV2. Support a mother living with HIV to feed her infant according to national health authority recommendations | • Explain exclusive breastfeeding followed by continued breastfeeding while starting complementary foods<br>• Explain how to heat-treat and store breast milk<br>• Describe the criteria for selection of a wet nurse<br>• Explain how to prepare replacement food<br>• Describe hygienic preparation of feeds and hygienic management of utensils<br>• Explain the volumes of replacement food to offer a baby according to weight | • Apply competencies C1, C2 and BF1 to BF4 to support a mother to breastfeed exclusively and optimally<br>• Show a mother how to heat-treat breast milk and apply competencies BF5 and BF6<br>• Apply competencies C1, C2 and BF1 to BF4 to support the wet nurse<br>• Help a mother to prepare the type of replacement feeding she requires<br>• Apply competency BF6<br>• Show a mother how to prepare replacement feeds hygienically<br>• Practise with a mother how to prepare replacement feeds hygienically<br>• Show a mother how to measure milk and other ingredients to prepare feeds<br>• Practise with a mother how to measure milk and other ingredients to prepare feeds<br>• Explain to a mother the volume of milk to offer her baby and the number of feeds per 24 hours |
| HIV3. Promote appropriate use of nationally recommended antiretroviral therapy (ART) for women living with HIV | • Describe the ART regimes recommended by the national health authority<br>• List the antiretroviral drugs included in the recommended regimes for use in women living with HIV | • Help women living with HIV to follow the recommended ART regime<br>• Apply competencies C1 and C2 |
| HIV4. Follow up the infant of a mother living with HIV who is receiving replacement feeding from 0 up to 6 months | • Describe hygienic preparation of feeds<br>• Explain the volumes of milk to give to a baby according to weight<br>• Explain when to arrange follow-up or when to refer<br>• Explain about feeding during illness and recovery | • Show a mother how to prepare replacement feeds hygienically<br>• Practise with a mother how to prepare replacement feeds hygienically<br>• Apply competency BF6<br>• Recognize when a child needs follow-up and when a child needs to be referred<br>• Explain to a mother how to feed her baby during illness or recovery<br>• Use the Counselling cards and flyers appropriately |
| HIV5. Help a mother living with HIV in the event that she needs to stop breastfeeding | • Describe the difficulties a mother may encounter when she tries to stop breastfeeding over a short period of time<br>• Explain how to manage engorgement and mastitis in a mother who stops breastfeeding over a short period of time<br>• Show the ways to comfort a baby who is no longer breastfeeding<br>• List what replacement feeds are available and how to prepare them<br>• Explain when to arrange follow-up or when to refer | • Explain to a mother how she should prepare to stop breastfeeding early<br>• Practise with a mother how to prepare replacement feeds hygienically<br>• Apply competencies BF5 and BF6<br>• Manage breast engorgement and mastitis in an mother living with HIV who is stopping breastfeeding (competencies BF16 and BF18)<br>• Explain to a mother ways to comfort a baby who is no longer breastfeeding |

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# SELF-ASSESSMENT IN INFANT AND YOUNG CHILD FEEDING: COMPETENCY PRACTICE AND PROGRESS TRACKING FORM

## Instructions:

- Track your practice by putting a ✓ in the first box (column) for each skill you have practised.
- In the second box (column), enter a ✓ for competency where a peer has observed you and provided feedback.
- In the third box (column), enter a ✓ for competency observed by a mentor-supervisor who provided feedback.

| Competencies | Practised | Peer observed and feedback | Mentor-supervisor observed and feedback |
|---|---|---|---|
| Core competencies | | | |
| 1. Use the six LISTENING AND LEARNING SKILLS to counsel a mother or caregiver | | | |
| 2. Use the six SKILLS FOR BUILDING CONFIDENCE AND GIVING SUPPORT to counsel a mother or caregiver | | | |
| 3. Assess a breastfeed using the JOB AID: BREASTFEED OBSERVATION | | | |
| 4. Help a mother to position herself and her baby for breastfeeding<br>• THE FOUR KEY SIGNS OF GOOD POSITIONING<br>• Demonstrate different positions:<br>– Cradle<br>– Cross-cradle<br>– Side-lying<br>– Underarm<br>– Cross-position for twins | | | |
| 5. Help a mother to attach her baby at the breast<br>• THE FOUR KEY SIGNS OF GOOD ATTACHMENT<br>• How to hold the breast<br>• Signs of effective suckling | | | |
| 6. Explain how the breast makes milk | | | |
| 7. Explain to a mother about the optimal pattern of breastfeeding<br>• Unrestricted or demand feeding<br>• Day and night<br>• Let baby finish first breast; offer the second one | | | |
| 8. Help a mother to express her breast milk by hand | | | |
| 9. Help a mother to cup-feed her baby | | | |
| 10. Plot and interpret a child's growth chart | | | |
| 11. Take a feeding history for an infant aged from 0 up to 6 months using the JOB AID: FEEDING HISTORY – 0 UP TO 6 MONTHS | | | |

| Competencies | Practised | Peer observed and feedback | Mentor-supervisor observed and feedback |
|---|---|---|---|
| 12. Counsel a pregnant woman about breastfeeding (importance and management) | | | |
| 13. Inform a woman about optimal infant feeding (early skin-to-skin contact, early initiation of breastfeeding, exclusive breastfeeding for 6 months, and continued breastfeeding to 2 years) | | | |
| **Compound competencies** | | | |
| 1. Help a mother to initiate breastfeeding within an hour after delivery | | | |
| 2. Support exclusive breastfeeding for the first 6 months of life | | | |
| 3. Help a mother to continue breastfeeding up to 2 years of age or beyond | | | |
| 4. Help a mother with "not enough milk" | | | |
| 5. Help a mother with a baby who cries frequently | | | |
| 6. Help a mother whose baby is refusing to breastfeed | | | |
| 7. Help a mother who has flat or inverted nipples | | | |
| 8. Help a mother with engorged breasts | | | |
| 9. Help a mother with sore or cracked nipples | | | |
| 10. Help a mother with mastitis | | | |
| 11. Help a mother to breastfeed<br>• a low birth-weight-baby<br>• a sick baby<br>• twins | | | |
| 12. Help a mother to increase her breast milk or to start breastfeeding again (relactate) | | | |
| 13. Help mothers who are in employment to breastfeed | | | |
| 14. Explain the importance of continued breastfeeding | | | |
| 15. Explain why there is an optimal age for children to start complementary feeding | | | |
| 16. List the local foods that can help fill the energy gap | | | |
| 17. Explain the reason for recommending using foods of a thick consistency | | | |
| 18. Describe ways to enrich foods | | | |
| 19. List the local foods that can fill the nutrient gaps for iron and vitamin A | | | |
| 20. Explain the importance of animal-source foods | | | |
| 21. Explain the importance of legumes | | | |

| Competencies | Practised | Peer observed and feedback | Mentor-supervisor observed and feedback |
|---|---|---|---|
| 22. Describe age-appropriate frequency, amount, thickness, and variety of foods for an infant aged 6–9 months | | | |
| 23. Describe age-appropriate frequency, amount, thickness, and variety of foods for an infant aged 9–12 months | | | |
| 24. Describe age-appropriate frequency, amount, thickness, and variety of foods for an infant aged 12–24 months | | | |
| 25. Describe the importance of responsive feeding | | | |
| 26. Describe hygiene practices for the mother/caregiver/baby | | | |
| 27. List the recommendations for feeding a non-breastfed child aged over 6 months | | | |
| 28. Use the Job aid: Food intake – 6 up to 24 months or IYCF health-worker Job aid 1: IYCF assessment | | | |
| 29. Explain why children need to continue to eat during illness | | | |
| 30. Describe appropriate feeding during illness and recovery | | | |
| 31. Conduct a food demonstration with a mother/caregiver to help feed her child aged 6–24 months | | | |

# Exercises to be completed

There are 12 exercises to be completed in your *Participant's manual* before the follow-up session. The trainer will go through these exercises with you at the follow-up session and discuss any difficulties you had answering them.

## How to do the exercise:

Read the stories and write your answers to the questions in pencil in the spaces. These exercises are based on Sessions 14 and 27: Positioning a baby at the breast 1 and 2 and Sessions 19 and 28: Breast conditions 1 and 2 in your *Participant's manual*. The exercises also use the counselling skills from Sessions 5 and 8. Refer to these sessions to help you with these exercises.

## Example:

**Mrs A** says that both her breasts are swollen and painful. She put her baby to her breast for the first time on the third day, when her milk "came in". This is the sixth day. Her baby is suckling, but now it is rather painful, so she does not let him suck for very long. Her milk is not dripping out as fast as it did before.

*What is the diagnosis?*
Engorged breasts

*What may have caused the condition?*
Delay starting to breastfeed

*How can you help Mrs A?*
Help her to express her milk, and help her to position her baby at her breast, so that he can attach better.

**Mrs B** says that her right breast has been painful since yesterday, and she can feel a lump in it, which is tender. She has no fever and feels well. She has started to wear an old bra which is tight, because she wants to prevent her breasts from sagging. Her baby is 10 weeks old and now sometimes sleeps for 6–7 hours at night without feeding. You watch him suckling. Mrs E holds him close, and his chin is touching her breast. His mouth is wide open and he takes slow, deep sucks.

*What could you say to empathize with Mrs B's worries about her figure?*

*What is the diagnosis?*

*What may be the cause?*

*What three suggestions would you give Mrs B?*

**Mrs C** has had a painful swelling in her left breast for 3 days. It is extremely tender, and the skin of a large part of the breast looks red. Mrs C has a fever and feels too ill to go to work today. Her baby sleeps with her and breastfeeds at night. By day, she expresses milk to leave for him. She has no difficulty in expressing her milk. But she is very busy, and it is difficult for her to find time to express milk, or to breastfeed her baby during the day.

*What could you say to empathize with Mrs C?*

*What is the diagnosis?*

*Why do you think that Mrs C has this condition?*

*How would you treat Mrs C?*

**Mrs D** complains of nipple pain when her 6-week-old baby is suckling. You examine her breasts while her baby is asleep, and can see no fissures. When the baby wakes, you watch her baby feeding. Her body is twisted away from her mother's. Her chin is away from the breast, and her mouth is not wide open. She takes rapid, shallow sucks. As she releases the breast, you notice that the nipple looks squashed.

*What is the cause of Mrs D's nipple pain?*

*What could you say to build Mrs D's confidence?*

*What practical help could you give her?*

**Mrs E's** baby was born yesterday. She tried to feed him soon after delivery, but he did not suckle very well. She says that her nipples are inverted, and she cannot breastfeed. You examine her breasts, and notice that her nipples look flat. You ask Mrs E to use her fingers and to stretch her nipple and areola out a short way. You can see that the nipple and areola are protractile.

*What could you say to accept Mrs E's idea about her nipples?*

*How could you build her confidence?*

*What practical help could you give Mrs E?*

**Mrs F's** baby is 3 months old. She says that her nipples are sore. They have been sore on and off since an attack of mastitis several weeks ago. The mastitis cleared up after a course of antibiotics. This new pain feels like needles going deep into her breast whenever her baby suckles. You watch her baby breastfeeding. The baby's mouth is wide open, her lower lip is turned out, and her chin is close to the breast. She takes some slow deep sucks and you see her swallow.

*What might be the cause of Mrs F's sore nipples?*

*What treatment would you give to her and her baby?*

*How would you build Mrs F's confidence?*

**Mrs G** is 16 years old. Her baby was born 2 days ago, and is very healthy. She has tried to breastfeed him twice, but her breasts are still soft, so she thinks that she has no milk and will not be able to breastfeed. Her young husband has offered to buy her a bottle and some formula milk.

*What could you say to accept what Mrs G says about her breast milk?*

*Why does Mrs G think that she will not be able to breastfeed?*

*What relevant information would you give her, to build her confidence?*

*What practical help could you give Mrs G?*

**Mrs H** says that her breast milk seems to be decreasing. Her baby is 4 months old, and has gained weight well from when she was born. Last month she started giving her baby cereal three times a day. She says that she is breastfeeding less often, and for a shorter time than before her baby started cereal feeds. Mrs H is at home all day, and her baby sleeps with her at night.

*Why do you think that Mrs H's breast milk seems to be decreasing?*

*What are Mrs H and her baby doing right?*

*What could you suggest to Mrs H, so that she continues to breastfeed?*

**Mrs I's** baby is 7 weeks old. She says that her breast milk is not good. Her baby does not seem satisfied after breastfeeds. He cries and wants to feed again very soon, sometimes in half an hour, or an hour. He cries and wants to breastfeed often at night too, and Mrs I is exhausted. He passes urine about six times a day. When he breastfeeds, you notice that his lower lip is turned in, and there is more areola visible below his bottom lip than above his top lip.

*The baby weighed 3.7 kg at birth. He now weighs 4.8 kg.*

*Is Mrs I's baby getting as much breast milk as he needs?*

*What may be the reason for his behaviour?*

*What could you praise, to build Mrs I's confidence?*

*What practical help would you offer to Mrs I?*

**Mrs J** says that she is exhausted, and will have to bottle feed her 2-month-old baby. Her baby does not settle after breastfeeds, and wants to feed very often – she cannot count how many times in a day. She thinks that she does not have enough breast milk, and that her milk does not suit her baby. While she is talking to you, her baby wants a feed. Her baby suckles in a good position. After about 2 minutes, the baby pauses, and Mrs J quickly takes her off her breast.

*The baby's growth chart shows that she gained 250 g last month.*

*What could you say to show that you accept Mrs J's ideas about her milk?*

*Is Mrs J's baby getting enough breast milk?*

*What is the reason for this?*

*What can you suggest to help Mrs J?*

**Mrs K** says that her 3-month-old baby is refusing to breastfeed. He was born in hospital and roomed-in from the beginning. He breastfed without any difficulty. Mrs K returned to work when her baby was 2 months old. Her baby has two or three bottle feeds while she is at work. For the last week, he has refused to breastfeed when she comes home in the evening. She thinks that her milk is not good, because she works hard and feels hot all day.

*What could you say to accept Mrs K's ideas about her milk?*

*What might be the cause of her baby's refusal to breastfeed?*

*What praise and relevant information could you give to build Mrs K's confidence?*

*What could you suggest that she does to breastfeed again, if she decides to try?*

**Mrs L** has a baby who is 1 month old. The baby was born in hospital, and was given three bottle feeds before she started to breastfeed. When Mrs L went home, her baby wanted to breastfeed often, and he seemed unsatisfied. Mrs L thought that she did not have enough milk. She continued to give bottle feeds, in addition to breastfeeding, and hoped that her supply of breast milk would increase. Now her baby is refusing to breastfeed. When Mrs L tries to breastfeed, her baby cries and turns away. Mrs L wants very much to breastfeed, and she feels rejected by her baby.

*What could you say to empathize with Mrs L?*

*Why is Mrs L's baby refusing to breastfeed?*

*What relevant information might be helpful to MrsL?*

*What four things would you offer to help Mrs L to do, so that she and her baby can enjoy breastfeeding again?*

# Notes

For more information, please contact:

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Website: https://www.who.int/health-topics/nutrition