



The Government of Malawi



UNITE TO END STUNTING

# Key Messages for 1000 Special Days





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# Chapter 1: Maternal Nutrition

## Introduction

Adequate nutrition before and during pregnancy and throughout the lactation period is critical for proper growth and development of the child.



## 1.1 Pregnant Women

### Key Messages

- ✓ Pregnant women should eat two extra meals in between main meals each day for additional energy and nutrients for themselves and their growing baby.
- ✓ Pregnant women who feel nausea should eat small and frequent meals, 5 or 6 times a day.
- ✓ Pregnant women must eat nutritious meals every day which include locally available foods from all the six food groups.
- ✓ Pregnant women **MUST** avoid alcohol and smoking.
- ✓ Pregnant women should take iron and folic acid tablets as directed by the health worker to prevent anaemia.
- ✓ Households should use iodized salt to ensure adequate intake of iodine.
- ✓ Pregnant women should visit the antenatal clinic at least four times for pregnancy monitoring, vaccinations, malaria prophylaxis, and to receive de-worming tablets.
- ✓ Pregnant women and children under 5 should sleep under long lasting insecticide-treated mosquito net every night, all year round to prevent malaria.
- ✓ Pregnant women should get tested together with their partners to know their HIV status and access support services.

## 1.2 Safe Delivery

### Introduction

Safe delivery services are conducted by skilled health workers at a health facility to ensure the health of the mother and baby. Therefore, all mothers must deliver at a health facility.

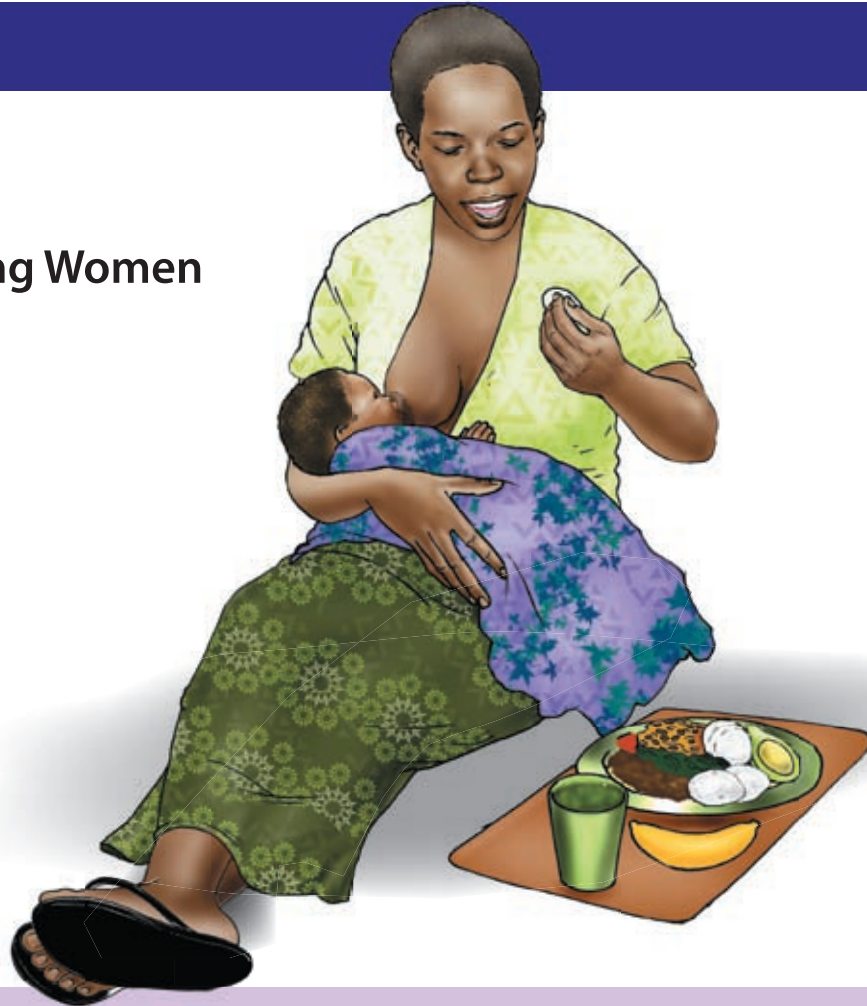
### Key Messages

- ✓ Pregnant women should be taken to the health facility at the onset of labour.
- ✓ Once the baby is born, the newborn should be put onto the chest of the mother skin-to-skin immediately after birth, to keep the baby warm and to promote bonding.
- ✓ Initiate breastfeeding within the first 30 minutes of birth to ensure that the baby suckles colostrum, (the thick yellowish foremilk), which is good for the baby because it provides immunity to the baby. It also prevents postpartum bleeding.
- ✓ When breastfeeding, mothers should empty one breast before switching to the other to enhance milk production.





### 1.3 Lactating Women



#### Key Messages

- ✓ Lactating women should eat one extra meal each day for additional energy and nutrients for themselves and their growing baby.
- ✓ Lactating women must eat nutritious meals every day which include locally available foods from all the six food groups.
- ✓ Lactating women **MUST** avoid alcohol and smoking.
- ✓ Lactating mothers should take vitamin A capsule immediately after delivery or within 8 weeks so that the baby receives the vitamin A in the breast milk.
- ✓ Households should use iodized salt to ensure adequate intake of iodine.
- ✓ Lactating women and children under 5 should sleep under long lasting insecticide-treated mosquito net every night, all year round to prevent malaria.
- ✓ Lactating women should get tested together with their partners to know their HIV status and access support services.

## Chapter 2: Infant and Young Child Feeding

### 2.1 Exclusive Breastfeeding

#### Introduction

Breastfeeding is the natural and best way of infant feeding because it saves lives and improves the quality of life of infants and young children. During the first six months, the baby should only be given breast milk; this is called exclusive breast feeding. Exclusive breastfeeding for the first 6 months protects your baby from many illnesses, such as diarrhoea and respiratory infections. For the mother breastfeeding reduces bleeding and chances of ovarian and breast cancers.



#### Key Messages

- ✓ Mothers should exclusively breastfeed their baby from birth to 6 months (do not give other foods and fluids including water).
- ✓ Mothers should breastfeed on demand, both day and night to ensure that the baby consumes adequate milk and to enhance milk production. The mother should therefore not be separated from her baby at night.
- ✓ Mothers should continue breastfeeding even when the baby is ill.
- ✓ While breastfeeding the baby mothers should not engage in any other chores but sit comfortably and breastfeed. Ask others for help with household chores.

## 2.1.1 Breastfeeding Positions



### Introduction

Good positioning ensures that the baby suckles well and that the mother produces adequate supply of breast milk. The key positions are:

- a. Cradle position (most commonly used)
- b. Cross cradle position (good for small babies)
- c. Side-lying position (used when resting while breastfeeding and at night)
- d. Under-arm position (used after caesarean section, if the mother's nipples are painful or if the mother is breastfeeding twins or a small baby)

### Key messages

- ✓ When breastfeeding the baby, the mother should ensure that; The baby's body should be straight, not bent or twisted, but with the head slightly back.
- ✓ The baby's body should be facing the breast not held flat to the mother's chest or abdomen, and the baby should be able to look up into the mother's face.
- ✓ The baby should be close to the mother.
- ✓ The baby's whole body is supported, not just the neck and shoulders, with a hand and forearm.



## 2.1.2 Good Attachment

### Introduction

Good attachment ensures that the baby suckles well and the mother produces adequate supply of breast milk. It also prevents sore and cracked nipples. If the mother experiences pain when breastfeeding, she should seek help at the health facility.

Effective suckling helps the mother to produce milk and satisfy the baby. After the baby empties one breast offer the other breast to ensure that milk production is stimulated in both breasts. The signs of effective suckling are:

- a. The baby takes slow deep suckles, sometimes pausing.
- b. The mother should be able to see or hear the baby swallowing after one or two suckles.
- c. Suckling is comfortable and pain free for the mother.
- d. The baby finishes the feed, releases the breast and looks content and relaxed.
- e. The breast is softer after the feed.

### Key messages

For good attachment the mother should ensure that;

- ✓ The baby's mouth is wide open
- ✓ The darker skin (areola) should be seen more above the baby's mouth than below
- ✓ Baby's lower lip is turned outwards
- ✓ Baby's chin is touching the mother's breast



## 2.1.3 Feeding a Low Birth Weight Baby

### Introduction

A low birth weight baby refers to a baby that is born weighing less than 2.5kgs at full term. Breast milk is especially adapted to the nutritional needs of low birth weight babies. The best milk for a low birth weight baby is the breast milk from the baby's own mother.

### Key Messages

- ✓ Mothers should breastfeed frequently to get the baby used to the breast and to keep the milk flowing. Long slow feeds are fine.
- ✓ Mothers should breastfeed the baby frequently even when he or she is not crying.
- ✓ Mothers should use the cross cradle and underarm positions for feeding a low birth weight baby.
- ✓ Mothers should tap/tickle the baby's feet to help waken him or her for the feed if the baby sleeps for long periods of time.
- ✓ Mothers should use Kangaroo mother care to provide skin-to-skin contact, warmth and closeness to the breast, encourage early initiation of breast feeding and exclusive breastfeeding, either by direct feeding or using expressed breast milk given by cup. Different caregivers should also share in the care of the baby using the same Kangaroo method position.
- ✓ Mothers and caregivers should identify the following signs of hunger:
  - Being alert and restless,
  - Opening mouth and turning head to the direction of the breast.
  - Putting tongue in and out, sucking on hand or fist looking for the direction of the breast

## 2.1.4 Expressing Breast Milk

### Introduction

Direct breastfeeding of premature or very small babies may not be possible for several weeks. Mothers should therefore be taught and encouraged to express breast milk and feed the baby using a clean cup.



## Key Messages

- ✓ Mothers and caregivers should:
  - Wash hands and utensils using soap and clean running water.
  - Clean and boil the container to be used to collect the breast milk.
  - Gently stroke the breasts or use a warm cloth to help stimulate the flow of milk.
- ✓ Mothers should place the thumb on the breast above the dark area (areola) around the nipple and the other fingers on the underside of the breast behind the areola.
- ✓ Mothers should use the thumb and first 2 fingers press a little bit in towards chest wall and then press gently towards the areola.
- ✓ Mothers should collect the milk in the clean container. Milk may start to flow in drops, or sometimes in fine streams.
- ✓ Mothers should avoid rubbing the skin, which can cause bruising, or squeezing the nipple, which stops the flow of milk.
- ✓ Mothers should rotate the thumb and finger positions and press gently and release all around the areola
- ✓ Mothers should express one breast for at least 3 to 5 minutes until the flow slows, then express the other breast and then repeat both sides (20 to 30 minutes total).
- ✓ Mothers should store breast milk in a clean, covered container. Milk can be stored 6 to 8 hours in a cool place such as a clay pot and up to 72 hours in the refrigerator.
- ✓ Mothers should pour just enough breast milk from the clean covered container into the feeding cup.
- ✓ Mothers should give baby expressed breast milk from a clean cup. Bring the cup to the baby's lower lip and allow the baby to take small sips of milk. Do not pour the milk into baby's mouth.
- ✓ Mothers should not use bottles because they easily get contaminated and are difficult to wash.





When the mother is going away from home, she should:

- Take the baby with her if possible. If this is not possible, consider having someone bring the baby for breastfeeding.
- Take time to feed the baby before leaving home and resume breastfeeding upon return.
- Express and store breast milk in a clean cup or container before leaving the home so that the baby's caregiver can feed the baby. Expressed breast milk (stored in a cool, covered place) stays in good condition for 8 hours, even in a hot climate.
- Continue expressing breast milk while away from the baby to keep the milk flowing and prevent breast swelling.
- Teach the baby's caregiver how to use a clean open cup to feed the baby.
- Get support in caring for the baby and other children, and for doing household chores from family members.



## 2.1.5 Feeding the Sick Baby Less Than 6 Months of Age

### Introduction

During illness children are more likely to have problems with feeding due to loss of appetite and vomiting. Special care is needed therefore when feeding them.



### Key messages:

- ✓ Mothers should breastfeed more frequently when the baby is ill, even when he/she has diarrhoea, to prevent weight loss and speed up recovery.
- ✓ Mothers and caregivers should immediately take the sick baby to the health facility if the baby is refusing to breastfeed.
- ✓ Mothers should continue exclusive breastfeeding when the baby is sick.
- ✓ Mothers and caregivers should only give medicines that have been prescribed by the health care provider.
- ✓ Mothers should give expressed breast milk if the baby is too weak to suckle.
- ✓ Mothers should increase the frequency of breastfeeding during the recovery period to help the baby regain weight and catch up in growth.

## 2.2 Complementary Feeding



### 2.2.1 Complementary Feeding When the Baby Reaches 6 Months

#### Introduction

From 6 months onwards, breast milk alone is not enough to meet the nutritional requirements of the rapidly growing baby, as such the baby needs other foods in addition to breast milk. Therefore, there is need to introduce other complementary foods.

Examples of complementary foods from the six food groups are: staple foods like porridge (maize, rice, millet, potatoes, sorghum), mashed banana or mashed potato which will give your child energy; legumes like beans, peas; meat and meat products like soft meat, fish, eggs which help your child to be strong; Fruits like mangoes, tangerines, oranges, avocado, juice of baobab which will protect your child from illness; vegetables like green leafy vegetables like nkhwani, khwanya, chisoso.

## Key Messages

- ✓ Mothers should continue breastfeeding the baby on demand at least 8 times both day and night to meet the nutritional needs of the baby and maintain his/her health and strength.
- ✓ Mothers should continue to breastfeed the baby until 2 years of age or older.
- ✓ Mothers should breastfeed first before giving other foods.
- ✓ Mothers and caregivers should feed the baby complementary foods at least 2 time a day.
- ✓ Mothers and caregivers should give 2 to 3 tablespoonfuls at each feed and the food should be thick enough to be fed by hand.
- ✓ Mothers and caregivers should avoid giving thin watery porridge as it will fill the stomach but not provide nutrients.
- ✓ Mothers and caregivers should not give fizzy drinks as it does not help the baby to grow.
- ✓ Mothers and caregivers should be patient and actively encourage the baby to eat and avoid force feeding because the baby may need time to get used to eating foods in addition to breast milk.
- ✓ Mothers and caregivers should use a separate plate to feed the baby to make sure he or she eats all of the food given.
- ✓ Mothers and caregivers should store food in a covered clean container and give it to the baby within two hours of cooking.
- ✓ Mothers and caregivers should use a clean cup to give foods or liquids to the baby. Do not use bottles, teats or spouted cups to feed the baby. They are difficult to clean and can make the baby sick.
- ✓ Mothers and caregivers should wash hands and the baby's hands with soap and clean running water before preparing food, feeding the baby, after using the toilet and cleaning the baby's bottom.

- ✓ Mothers and caregivers should treat drinking water by boiling or using Water Guard and keep all drinking water in clean covered containers.

## 2.2.2 Complementary Feeding from 6 Months up to 9 Months

### Introduction

From 6 to 9 months, continue feeding the baby soft, mashed foods at least 2 times per day. Food should be thick, not watery. The watery broth does not help your baby grow and would not satisfy his/her hunger.

### Key Messages

Mothers and caregivers should:

- ✓ Give the baby thick porridge enriched with different foods like: groundnut flour or mashed or pounded vegetables like nkhwani, mpiru, or kholowa or dried vegetable powder; meat products like mazira, mkaka or nsomba yosinjasinja; fruits like mashed banana or fresh fruit juice.
- ✓ Gradually increase the amount of food given to the baby so that by 9 months the baby is consuming  $\frac{3}{4}$  to 1 full standard cup (250 ml) 2-3 times per day.
- ✓ Give the baby a portion of fish, meat (chicken, mouse, goat, beef, pork, bird, rabbit), or edible insects once a day (at least two heaping tablespoons). These foods are a good source of iron.
  - Pound or mince the meat or fish (be careful to remove bones from fish if necessary).
  - Fry/roast small dried fish and grind with maize. Make thick porridge with the combined flour.
  - Prepare fresh fish with vegetables such as tomato. Mash very well for baby.
  - Pound the baby's portion of meat and then cook it.



- ✓ Serve the liver to the baby whenever preparing a chicken.
- ✓ Feed the baby a piece of fruit one to two times a day as it will improve his/her appetite and growth.
- ✓ Prepare the family vegetables with some fat, oil or ground nut powder. Give a portion of the same vegetables to the baby.
- ✓ Do not give non-nutritious liquids or food to the baby like artificial juices (squashes), freezes, fizzy drinks, jiggies, puffs, sweet and biscuits as they are expensive and do not help the baby to grow. Instead it is cheaper to buy eggs or some fruits like banana, orange.
- ✓ Be patient and actively encourage the baby to eat. Don't force feed.
- ✓ Use a separate plate to feed the baby to make sure he or she eats all the food given.
- ✓ Always use iodized salt.
- ✓ Add one new food to the child's diet each week.



## 2.2.3 Complementary Feeding from 9 Months up to 12 Months

### Introduction

At this stage, the baby is growing fast so he/she requires more food frequently but in small quantities to meet their growth and development needs. So the baby needs to start the day with a meal in the morning.



Continue to breastfeed the baby and increase the amount of food given until you feed him/her a standard cup (250 ml) or eight tablespoons per meal. Feed your baby at least three times per day.



### Key Messages

Mothers and caregivers should:

- ✓ Feed thick phala (porridge) made from the 6 food groups. These should include fortified foods such as Likuni Phala, ufa wa mgaiwa and ground nut or soya flour or futali in the morning.
- ✓ Give soft nsima with mashed beans or any other relish (according to what the mother has) to start baby on the family meals.
- ✓ Bring some food to feed the baby and include snacks like fruits or some chikonda moyo made from enriched flour when they take the baby away from home.
- ✓ Wash their hands and the baby's hands with soap and clean running water before feeding him/her.

- ✓ Stay with the baby during meals. He/she will eat better when someone is there to encourage.
- ✓ Feed the baby before other family members until he/she has eaten enough.

## 2.2.4 Complementary Feeding from 12 Months up to 24 Months



### Introduction

During the period of 12 – 24 months children experience rapid growth as they go through various milestones such as tripling birth weight by 12 months, walking, running all of which increases nutrient requirement. In addition the child is prone to various infections as they interact with their surrounding/environment further increasing their nutrient requirement. Continued breastfeeding with increased complementary feeding is required.

### Key messages

- ✓ Mothers should continue breastfeeding the baby on demand at least 8 times both day and night to meet the nutritional needs of the baby and maintain his/her health and strength.
- ✓ Mothers should breastfeed first before giving other foods.
- ✓ Mothers and caregivers should;
  - Feed the child the same foods they feed the rest of the family and ensure that the food is chopped and moistened.
  - Feed the child at least 5 times per day, 3 main meals and nutritious snacks between meals such as vegetables/fruits, sources of vitamin A, and foods prepared with fat – dark green vegetables – chisoso, nkhwani, moringa, bonongwe, kholowa, tomato, eggplant, carrot, cabbage, Fruits like orange, passion fruit, mango, papaya, banana, watermelon, pineapple, avocado, chikondamoyo, chitumbuwa.
  - Increase portions of meat/fish/eggs
  - Increase the amount of food given to the child so that by 24 months the child is fed 16 tablespoons.
- ✓ To achieve active/responsive feeding, mothers and caregivers should:
  - Be patient and actively encourage the child to eat.
  - Not force the child to eat.
  - Use a separate plate to feed the child and make sure the child eats all the food given.
- ✓ Good hygiene (cleanliness) is important to avoid diarrhoea and other illnesses. (CC 11) To avoid diarrhea and other illnesses the caregiver should;
  - Use a clean spoon or cup to give foods or liquids to the child.
  - Store the foods to be given to the child in a safe hygienic place.
  - Wash hands with soap and clean running water before preparing foods and feeding the child.
  - Wash the child’s hands with soap and clean running water before eating.
  - Wash hands with soap and clean running water after using the toilet and washing or cleaning the child’s bottom.

## 2.2.5 Feeding the Sick Baby 6 Months of Age and Older

### Introduction

Children need more food and liquids when they are sick. Even if the child's appetite is decreased, encourage him or her to eat small meals frequently.

After the child has recovered, actively encourage him or her to eat one additional meal of solid food each day during the following few weeks. This will help the child regain the weight he or she has lost.





## Key Messages

- ✓ Mothers should breastfeed the sick child more frequently, to speed up recovery and reduce weight loss.
- ✓ Mothers and caregivers should provide ORS on the way to the health facility to a child who has diarrhoea or is vomiting to replace lost salts and fluids in his/her body.
- ✓ Mothers and caregivers should feed the child simple foods like porridge and avoid spicy or fatty foods. Even if the child has diarrhoea, it is better for him or her to keep eating.
- ✓ When the mother is sick, she should continue to breastfeed the baby whenever possible. She may need extra food, liquids and support during this time.
- ✓ Mothers and caregivers should not use bottles, teats, or spouted cups as they are difficult to clean and can cause infection.
- ✓ Mothers and caregivers should offer other nutritious liquids in addition to breast milk; for example, homemade fruit juice (orange, tangerine, malambe, guava, bwemba)
- ✓ Mothers and caregivers should offer small amounts of diverse nutritious foods more frequently as the child needs extra food to gain weight and recover.
- ✓ Mothers and caregivers should offer the child his/her favorite nutritious foods.
- ✓ Mothers and caregivers should add a few drops of lemon to the child's foods to provide vitamin C and to improve the taste.
- ✓ Mothers and caregivers should offer fruits such as mango, papaya, and orange to stimulate the sick child's appetite.

## 2.3 Infant Feeding in the Context of HIV

### Introduction

All pregnant women should go to antenatal clinics within the first trimester to receive antenatal care including HIV testing and counselling. Pregnant women who are found HIV positive will be helped to reduce chances of passing on the virus to their unborn child. They receive care to keep their babies protected from HIV during pregnancy, labour and breastfeeding. Out of 100 babies born to women with HIV about 40 will get infected if no actions are taken, but with ART, less than 4 will get infected.

Even in the context of HIV and AIDS, breastfeeding is the natural and best way of infant feeding because it saves and improves the quality of life. For an HIV positive lactating mother, exclusive breastfeeding reduces the risk of passing on HIV from mother to child. It also reduces the risk of other childhood illnesses like diarrhoea and pneumonia.

### Key Messages

- ✓ Pregnant women must be tested at a health facility to know their HIV status within the first trimester to receive optimal care.
- ✓ All lactating mothers should exclusively breastfeed for the first 6 months regardless of their HIV status. Giving other foods or drinks, including water, increases the risk of your baby becoming infected with HIV.
- ✓ If infants and young children are known to be already HIV infected, mothers are strongly encouraged to continue breastfeeding up to two years of age and beyond.
- ✓ Families and communities should provide support to mothers so that they can rest, eat well, practice good hygiene and care for the baby.
- ✓ All mothers should eat a variety of foods from the six food groups and eat two extra meals every day.

## Chapter 3: Dietary Diversification

### Introduction

The body needs different nutrients to function well and different foods provide different nutrients. Eating the right kinds and amounts of food keeps us healthy. No one food supplies all the nutrients the body needs and no one nutrient is most important. Each food group is essential because of the nutrients that it provides and each nutrient depends on other nutrients for it to carry out its proper function.

Combining foods from different groups is not new in the Malawian culture. One-pot meals can combine meat, bananas and vegetables or cassava cooked together with pigeon peas and meat. A diverse diet does not necessarily mean spending a lot of money.

A diet that is not diversified will result in inadequate intake of nutrients which may cause under nutrition in pregnant women, lactating mothers and children under two years of age. Continuous under nutrition during pregnancy and the first two years of life leads to chronic malnutrition also known as stunting. The first 1000 days of life is critical for child growth and development.



## Key messages

- ✓ To ensure a diverse food supply households must:
  - Have a backyard/kitchen garden and plant indigenous vegetables such as mnkhwani, chigwada, bonongwe, kholowa, etc.
  - Grow oil seeds, such as groundnut, sesame, sunflower, pumpkin and soybeans to improve family meals.
  - Plant at least two fruit trees such as mangoes, pawpaws, guavas, or oranges; choose several seasonal types to ensure that there is fruit available all year round.
  - Rear at least one or two types of small animals such as poultry, goats, sheep, rabbits, and guinea pigs to improve family meals.
  - Preserve/dry fresh foods such as mangoes, masawu, tomatoes, okra, denje, etc. for use in time of scarcity. Drying is the most cost effective way of preserving food at household level. Use a solar dryer if possible to retain nutrients and preserve colour.
  
- ✓ To consume diverse foods households must;
  - Include foods from all the six food groups in your diet every day.
  - Plan meals using locally available vegetables like kholowa, mnkhwani, chisoso; animal foods like mazila, nkukhu, mbuzi, ngumbi, mbewa, mbalame, bwannoni, mphalabungu, and usipa, staples like chinangwa, mapila, mbatatesi and mbatata; fruits like masawu, mapapaya, mapeyala; and legumes like mtedza, nzama, khobwe, nandolo.
  - Ensure pregnant women eat a diverse diet: no foods are forbidden during pregnancy.
  - Prepare diverse meals for the baby by mixing other foods into the porridge like groundnut flour and mashed vegetables (pumpkin, mustard, or sweet potato leaves; pumpkin, sweet potato, tomato, potato).
  - Feed the children foods from all the six food groups every day through meals and snacks.



Households must prepare and handle food hygienically by:

- Washing hands with soap and water before preparing food and feeding baby.
- Washing hands and baby's hands with soap and water before eating.
- Washing hands with soap and water after using the toilet and washing or cleaning baby's bottom.
- Feeding the baby using clean hands and clean utensils.
- Using a clean spoon or cup to give foods or liquids to the baby. Do not use bottles, teats or spouted cups since they are easily contaminated and can cause diarrhoea.
- Storing food in a safe clean place to be given to the baby.
- Treating drinking water so that it is safe by boiling or using chlorine or WaterGuard.
- Keeping treated water covered and using alternate cups (one for drawing water and another for drinking.)



## Chapter 4: Micronutrients

### 4.1 Vitamin A

#### Introduction

Vitamin A is a fat-soluble vitamin critical for growth and development, good eye sight, and immunity. Vitamin A is also important during pregnancy for foetal development.



Deficiency of Vitamin A in pregnancy may lead to poor development of the baby and birth defects. In children, deficiency of vitamin A may also lead to stunting and increased duration and severity of childhood illnesses such as measles, diarrhoea, pneumonia, and common cold. Other deficiency disorders of vitamin A include night blindness, drying and damage of eyes, and increased incidence of illness and death.



#### Key messages

- ✓ Pregnant women, lactating mothers, and children should eat foods rich in Vitamin A every day such as yellow/orange fruits and vegetables like ripe mangoes, pawpaws, pumpkin, and carrots; dark green leafy vegetables like bonongwe, chisoso, or kholowa prepared with nsinjiro or cooking oil; eggs, milk and milk products.
- ✓ Children from 6 months should get a Vitamin A supplement (as recommended) every 6 months from a health worker.
- ✓ Mothers who have just given birth should take a Vitamin A supplement within 8 weeks of delivery.
- ✓ Buy and consume centrally processed fortified foods such as cooking oil, sugar, maize and wheat flour, and Likuni Phala. Fortified foods can be identified by the fortification logo for Malawi. (as seen above)

## 4.2 Iodine

### Introduction

Iodine is a mineral essential for the control of metabolic processes and it regulates mental and physical development of an individual. It is important that pregnant women consume foods rich in iodine for foetal growth and development. Children need to consume iodine rich foods for proper mental and physical growth and development.

Severe iodine deficiency may result in dwarfism (short stature). This may affect the child’s performance in school, sports and other activities. Iodine deficiency also leads to development of goitre and reduces productivity of an individual. In pregnancy, iodine deficiency may result in cretinism (severe mental retardation), miscarriages, stillbirths, or death of newborn child.



Woman with goitre



Caretakers stimulating a mentally retarded boy

Many soils in Malawi are low in iodine and most of the foods grown do not have adequate iodine. The most reliable source of iodine is therefore iodized salt.

### Key messages

- ✓ Buy and use “Iodised Salt,” that has the fortification logo.
- ✓ Always store iodised salt in a tightly closed container and away from the sun to prevent loss of iodine.
- ✓ Traders should only sell iodised salt and store it appropriately before sale.





## 4.3 Iron

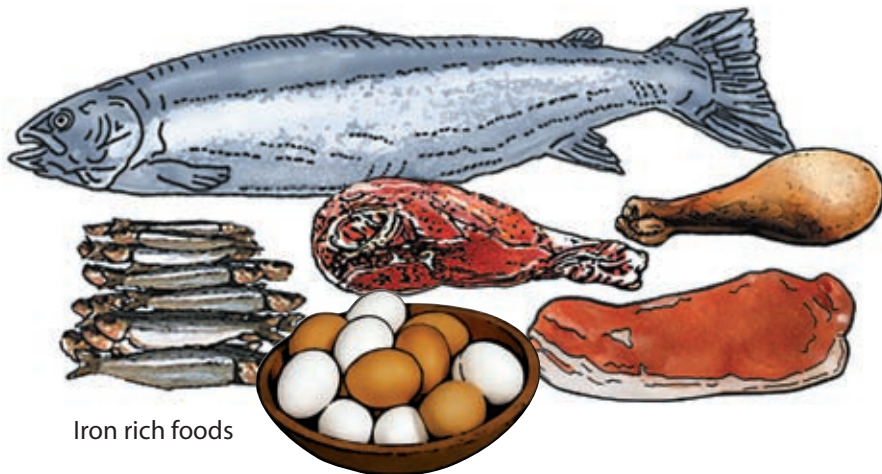
### Introduction

Iron is a mineral which is essential for red blood cells formation and is critical for body functions and immune system response.

Iron deficiency is one of the major causes of anaemia. Other causes of anaemia include worm infestation and malaria. A person with anaemia feels tired all the time, dizzy, and may have heart palpitations. Other signs of anaemia include pale palms, gums, tongue.

When a pregnant woman is anaemic, it may lead to: premature birth, low birth weight, still birth, and potentially leading to death of mother.

When a child is anaemic, it may lead to permanent brain damage, poor class performance and frequent illnesses.



Iron rich foods

Supplementing iron with vitamin C can help treat iron deficiency



## Key messages

- ✓ Pregnant women, lactating mothers, and children should eat iron-rich foods such as meat (mbewa, mbuzi, offals), legumes (nandolo, khobwe and beans) and dark green leafy vegetables (kholowa, bonongwe, chisoso, nkhwani, khwanya) every day.
- ✓ Pregnant women, lactating mothers, and children should eat foods rich in Vitamin C such as raw tomatoes, masuku, masau, malambe in combination with foods rich in iron to make the body use the iron properly.
- ✓ Buy and eat foods fortified with iron such as Likuni Phala, maize meal, and wheat flour. Fortified foods can be identified with the fortification logo for Malawi.
- ✓ A pregnant woman should get a supply of iron/folate tablets from a health worker to take daily during pregnancy.
- ✓ Children from one year of age should be given de-worming tablets every six months
- ✓ Pregnant women, lactating mothers and children should sleep under insecticide treated bed nets everyday
- ✓ Pregnant women should receive at least two doses of recommended prophylactic anti-malarial drugs
- ✓ Seek immediate medical attention when a child has fever



Iron rich vegetables

## 4.4 Folate (Vitamin B9)

### Introduction

Folate (Vitamin B9) is a water-soluble vitamin critical during pregnancy for development of the baby's brain and nervous system. It is also needed by the body for the formation of red and white blood cells. At antenatal clinics folate and iron are combined into one tablet.

Deficiency of folate in the body increases the risk of heart disease and stroke, impaired cognitive function and depression. In pregnancy, deficiency of folate may lead to poor development of the baby and birth defects.

### Key messages

- ✓ Pregnant and lactating mothers should eat folate rich foods such as liver, green leafy vegetables, Cowpeas, beans, pigeon peas, lentils, and nuts.
- ✓ Buy and eat fortified foods such as Likuni Phala, centrally processed maize and wheat flour. The fortified foods can be identified by the fortification logo for Malawi.
- ✓ Pregnant women should take iron/folate tablets every day for at least six months during pregnancy as recommended by the health worker.



Vitamin B9 rich legumes



## Chapter 5: Growth Monitoring and Promotion

### Introduction

Growth Monitoring and Promotion sessions take place at health facilities, outreach clinics, and community level to monitor the child's growth, nutritional status and development. A healthy child who is growing well should gain weight every month. If your child is not gaining weight or is losing weight, there is a problem. Attending growth monitoring and promotion sessions can help identify nutrition problems the child may have, such as severe thinness or swelling. Nutrition problems may need urgent treatment with special (therapeutic) foods.

### Key messages

Mothers and caregivers should:

- ✓ Take the baby monthly to growth monitoring and promotion sessions from birth to five years where the following will be done;
  - Monitoring the child's growth and nutritional status
  - Monitoring the mother's nutritional status
  - Immunization for mother and child
  - Health and Nutrition education
  - Health and Nutrition counseling
  - Referral to the appropriate program in case any problem is identified
  - Receive Vitamin A supplements and de-worming tablets (every 6 months)



## 5.1 When to Bring the Child to the Health Facility

### Introduction

Illness in children is very dangerous. It can degenerate quickly and result in malnutrition and death. It is therefore critical to take sick children to a health facility at the onset of illness for expert attention.

### Key Messages

- ✓ Mothers and caregivers should:  
Take the child to a health facility immediately if any of the following signs and symptoms are present:
  - The baby is refusing to feed
  - The baby is vomiting and cannot keep anything down
  - Diarrhoea (passing loose stools 3 times a day) and/or blood in the stool
  - Convulsions
  - Chest in-drawings
  - Fever
  - Lethargy (weak, not alert)
- ✓ Take the child for immunizations according to schedule.
- ✓ Take the child for de-worming and Vitamin A supplementation every six months until 5 years of age.
- ✓ Take the child for growth monitoring until the child is 5 years of age.







The Government of Malawi

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