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MODULE 10

FOOD AND NUTRITION SECURITY



MODULE 10 – UNDERSTANDING FFS AND TEAM BUILDING

This Food and Nutrition Security Training Module has been prepared to guide training in which facilitators will help participants in Farmer Field Schools to learn more about nutrition. The training can be run by one or two facilitators who have knowledge and experience in training, using active participatory methods.

The training is divided into five topics which can be covered on separate training days. The course includes information on food security; following the guidelines for good nutrition using locally available nutritious foods; food needs of family members with special food needs (pregnant and lactating women, infants and children); and personal and environmental hygiene and food safety.

The training methods suggested in this module are suitable for use in communities where there are limited resources. Facilitators should have a basic level of literacy and numeracy, but they do not need to have significant level of formal education. They should be experienced trainers, who know how to apply principles of active engagement of adult learners.

This training provides information on the topics listed above, but it should focus on facilitators assisting, and encouraging, participants to adopt the recommended actions and behaviors. If training time is limited it is better to cover fewer topics, and ensure that participants recognize the actions that are recommended for topics that are addressed. In addition they should feel confident that they know how to implement these actions.

This Food and Nutrition Security Module is supported by a “Nutrition Tool Box”, which contains visual aids and support material to assist discussion and learning about implementing healthy eating patterns.

Overall objectives of the training:

- To sensitize participants on the importance of nutrition in personal and community health and development.
- To advocate for “nutrition sensitive agriculture” in home food production.
- To help participants to implement the guidelines for healthy eating for family meals.
- To help participants (in their daily activity, food production, and daily life) contribute to healthy eating and a healthy lifestyle for their families and communities.

We hope that the information in this manual, and the support material in the “Nutrition Tool Box”, will guide farmer field school facilitators in helping families to produce and eat foods that provide essential nutrients, and thereby contribute to improving nutrition of families in Sierra Leone.

Words used in health, hygiene and nutrition education, and their meanings:

Absorb	The body takes up water, nutrients and other substances (like medicines). Digested food is absorbed from the intestine into the blood.
Anaemia	A sickness in which the number of red blood cells is low. The most common cause is not having enough iron from the eating plan. A person with anaemia may feel weak, tired and dizzy.
Bleach	A strong smelling liquid containing chlorine which is used for disinfecting food contact surfaces, plates, utensils, cleaning cloths and storage containers. Bleach can be used to kill bacteria in water to make it safe to drink.
Breastfeeding	This is when babies get breast milk from their mothers. This can be directly at the breast, or expressed milk given by cup.
Complementary feeding	When a baby is six months old complementary feeding is started. This is giving the baby breast milk and soft / semi-solid foods.
Dehydration	Loss of water, which causes something to dry out. A person with diarrhoea can become dehydrated, which is dangerous for their health. A wet food, like vegetables leaves can be dehydrated so that it can be stored for later use.
Digestion	Process by which food is broken down into small parts for the body to absorb and use.
Exclusive breastfeeding	A baby is given only breast milk, and no other foods (not even water); babies should be fed this way until they are six months old.
Faeces	The waste material from the body that is eliminated through the anus.
Healthy eating plan	A diet that supplies all the foods needed to supply the correct amounts of nutrients. This is sometimes called a balanced diet.
Iodated salt	Commercial table salt that has had iodine added (fortification).
Kilojoule	The unit used to measure energy in foods.
Nutrient	The parts of the food that are used by the body for energy, for growth and to keep the body healthy.
Oral rehydration solution	A mixture that is specially prepared to give to people with diarrhoea or vomiting. This will help to stop them from drying out inside (becoming dehydrated). The homemade mixture is made with sugar, salt and water and is called Sugar Salt Solution (SSS).
Pathogens	A type of germ that causes disease.
Under nutrition	This is the condition that a person develops when they do not have enough of one or more nutrients; for a long time.

Recommended materials for training

Book for information	<ul style="list-style-type: none"> • Sierra Leone Guidelines for Healthy Eating; general and support information
Teaching aid pictures on	<ul style="list-style-type: none"> • The food paths (home and commercial) • Factors that contribute to good nutritional status in children
Nutrition tool box	<ul style="list-style-type: none"> • Food flash cards • Food guide poster • Sentence cards of Guidelines for Healthy Eating • Cards for meal planning game
Flipchart size pictures	<ul style="list-style-type: none"> • Taken from UNICEF or MoHS IYCF charts <ul style="list-style-type: none"> ○ Maternal nutrition during pregnancy and lactation ○ Breastfeeding (exclusive and at night) ○ 6 – 9 months ○ 9 – 12 months ○ 12 – 24 months ○ Hand washing (adapted) • Household scene for hygiene education • Germ multiplication • Food safety keys
Items for demonstration	<ul style="list-style-type: none"> • Hand washing <ul style="list-style-type: none"> ○ Water, Bow, Jug, Soap or ash
General	<ul style="list-style-type: none"> • Beans / counters

Guidance:

Explain that the training will include discussion and other training methods. All participants are encouraged to take part in the discussions and to share ideas and concerns. There are no answers that are wrong, all discussion relates to what they understand and what they feel about the topic that is being discussed.

10.1 TOPICS: BASICS CONCEPTS OF FOOD, FOOD SECURITY AND NUTRITION

Learning objectives:

By the end of this session participants will:

- ✓ Be able to describe the food path (from production to consumption) of commonly eaten food items (home food production and commercial food production).
- ✓ Identify and discuss problems that may limit food availability in the area (for the community and for families). Most of these can be described in one of the following dimensions:
 - availability of food in the country, district etc.
 - access to food at household level
 - consumption (utilization)
 - stability of all dimensions over time (all year)
- ✓ Understand the link between good nutrition and good health.
- ✓ Recognize the importance of nutrition security, rather than only food security.

10.1.1 Session Outline

Content	Items needed	Methods
Foods commonly used in the area and food paths	Food flash cards Counters / beans Pictures food path stages	Round robin Personal exercise Group discussion
Food availability throughout the year and problems that limit food availability	Food flash cards Seasonal food calendar	Presentation / discussion Exercise
Link between eating patterns and health		Discussion Provide link to next session

10.1.2 Summary of Information

Foods and food paths

- The food we eat comes from different places. Some foods are produced at home; some are from plants we grow and others are from animals we catch or keep.
We may buy some of the food; this can be produced by other people or may be produced by a food company.
- Different foods are available at different times of the year and in different locations. The types and quantity of food available at a particular time influence the food and meals eaten by individuals and families.

Household food security

- Some families may not have enough food to eat; there could be many reasons for this. There are actions that people can take to increase the amount of food that they have to eat.

The link between food and health

- People who eat the right amount of the right kinds of foods have improved health and feel more energetic.

10.1.3 Exercise Summary

1	Naming commonly eaten foods	Question and input
2	Dividing foods into groups; produced at home / bought	Sorting pictures
3	Personal exercise; number of different types of foods eaten	Indicating produced / bought using beans
4	Steps of food production	Identifying steps of food paths; support discussion with pictures
5	Barriers and solutions to food availability	Continue from above
6	Link between nutrition and health	Summarize the above with point that leads into next session

10.1.4 Exercise:

1. Ask the participants the following questions.

Go around the group and try to get at least one answer from each person:

- “Please name foods that you have eaten in the last week”
- “Are there foods that you eat at other times of the year that are not available now – what are they?”
- “Are there other foods you know about that you could eat, but you do not have here?”

2. Here are pictures of these foods.

“Please divide these into three piles

- foods you produce here
- foods you buy
- foods that fit into both groups.”

Guidance:

Prompt if there are foods that are not included that you are aware they use e.g. salt.

3. Ask participants to do this personal exercise
 - “You do not eat all these foods every day. Please think of how many of them you ate yesterday – from the time you woke up, until the time you went to sleep at night. Keep that number in your head.”
 - “Now come to this bowl and take that number of beans.”
 - “Take your beans and divide them into two piles. One pile has the foods that were produced here in *INSERT NAME OF PLACE*, and the other has foods that you bought that were produced somewhere else.”
 - “We will talk about these numbers again later in the training. First let us go back to the foods you have mentioned.”

4. Use the piles of food pictures to talk about the stages of production of these foods.
 - “Before we see the food like this, it goes through many steps of production. Let us take tomatoes as an example, (use another *popular plant food from the area if needed.*) What are the steps?”

Guidance:

After feedback and prompting, use the pictures of key food path stages to discuss the stages.

- Home production:
- prepare the land
 - plant
 - weed, water etc
 - harvest
 - store
 - cook

- “Now let us look at another food, what are the stages of production for bread?” (*Use another example if people make their own flour and bread*)

Guidance:

After feedback and prompting, use the pictures of key food path stages to discuss the stages.

- Commercial production
- as above to harvest
 - transport in truck
 - mill (e.g. flour)
 - package in mill
 - on truck to bakery
 - mixed with other ingredients, made into bread, baked
 - on truck to shops

- for sale at small shop

- “We see that the steps are different for home produced food and for commercially produced foods. What are the main differences?”

Ask participants to give answers they think, and then add other points if needed:

- Commercially produced foods have a step where they must be transported by truck – this takes diesel and so adds to the cost of the food.
- Commercially produced foods are often in packaging material, this costs money.
- Most commercially produced foods are available all year.
- Some commercially produced foods have very little nutritional value (e.g. sweets).
- Home produced foods are available when they are in season.
- Home produced foods do not have the extra cost of packaging, transport and profit.

5. Continue the discussion about barriers to food availability and solutions to these barriers.

- “What problems can occur along these pathways of production that stop you getting the food?”
- “Let us discuss tomatoes and bread as examples”

Tomatoes - no rain
 - plant gets disease
 - not available all year

Bread - no money to buy it
 - only available in town

- “How can some of these problems be solved? What can you do if this occurs?”
 - No rain: grow a variety of foods, as some survive when there is little rain / use dried foods from previous season.
 - Plant gets disease: put mulch on soil to keep soil and disease away from the leaves, remove diseased leaves.
 - Not available all year: dry some to use in cooked dishes.
 - Use home grown starchy foods instead of bread
 - Buy it when you go to town.

Guidance:

Participants must realize that there are actions they can take to increase the availability of some foods.

Repeat the key message: “What can you do to increase the availability of some foods?”

6. In this session we have seen that different problems can occur that may prevent us having some types of food.

- “What happens to us and our families when we do not have enough food?”

This is when the family does not have food security.

- “Could this happen if there is food, but only one or two kinds available?”

This is when the family does not have nutrition security.

Give participants time to think of answers, then add the following points if they have not been raised.

- we get sick
- our children do not grow well
- we do not feel strong

Explain that in the next session you will be discussing information on the foods that are most important for health, and steps you can take to help you to use this information.

10.2 TOPICS: SIERRA LEONE'S GUIDELINES FOR HEALTHY EATING

Learning Objectives:

By the end of this session participants will be able to:

- ✓ Describe the main functions of the nutrients in food and in the body.
- ✓ Name and discuss information about foods available for use in the community.
- ✓ Describe a healthy eating plan, using the guidelines for healthy eating and foods available locally.

10.2.1 Session Outline

Content	Items needed	Methods
Food groups Nutrient functions	Food flash cards Sentence cards of guidelines	Round Robin; sorting foods to groups
Importance of variety	Nutrient content chart. Food guide poster	Feedback on thoughts of meaning of food guide
Guidelines to healthy eating	Food flash cards. Sentence cards of guidelines	Discussion and feedback, meaning of statements, barriers and solutions Group work as above
Application of messages		Personal goal setting

Meal and menu planning.	Beans	Small group work Meal and menu planning.
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10.2.2 Summary of Information

The messages that help people to learn how to have a healthy eating plan for their family are given below. There are many ways to create a healthy eating plan: the guidelines explain how this can be done.

These ‘Guidelines for healthy eating’ are supported by an illustration called the ‘Food Guide’. In the food guide foods have been drawn in groups, with similar foods placed in one group.

- Eat a variety of foods
 - Include food from at least 4 food groups each day
 - Eat different foods from the food groups
 - Food provides the nutrients that are essential for life.
 - Different nutrients have different functions in the body.
 - The nutrients in food provide energy to work, to play, to live and to be healthy.
 - The nutrients in food help the body fight sicknesses.
 - The nutrients in food provide the building blocks for the body, so people can grow and the body can repair itself as it ages.
 - Different foods have different nutrients. People who eat a variety of foods, from each of the food groups, will get a variety of nutrients.
 - Use foods that are available in your community.
- A healthy eating plan has two to three mixed meals a day. The meals are planned using the Guidelines for Healthy Eating
 - Eat rice, cassava or other whole grains, roots or tubers as part of meals.
 - Eat plenty of fruit, vegetables and green leaves at every meal.
 - Eat at least one portion from the group that are good sources of vitamin A.
 - Eat beans, peas, lentils or soya every day.
 - Eat fish, poultry, meat, milk or eggs every day.
 - Use oil sparingly and eat seeds and nuts.
 - This should be with the meal that has the vitamin A rich fruit, vegetable or leaves.
 - Use iodated salt, but uses it sparingly.
 - Use sugar and foods and drinks made with sugar sparingly.
- Use safe water.

10.2.3 Exercise Summary

1	Food groups	Use food pictures to create food groups for nutrition education. Round robin.
2	The food guide	Discussion of food guide poster and interpretation of it.
3	Enjoy a variety of food	Discussion of understanding barriers to achieving it and some solutions.
4	A healthy eating plan has three mixed meals a day	Discussion of understanding, barriers to achieving, message and support statements and identification of solutions.
5	Meal planning game	Used to reinforce messages of planning mixed meals to obtain all key nutrients.
6	Goal setting	Setting of some personal goals for changes in action. Link back to number of beans in session 1.
7	Meal and menu planning	Practical personal menu planning, including use of additional foods discussed in previous point.

10.2.4 Exercise

1. Use the food flash cards to support your teaching in this session.

- “Earlier we grouped foods you produce at home and those you buy.
Now we will group them according to food type”
- “Look at these food pictures, does anyone know one food that is called a starchy food, or staple food?”
- “Please pick up that picture, and place it over here.” (to be placed by itself)
- “Now can someone give us one food that is fruit, vegetable or edible leaf?”
“Pick up the picture and put it here.” (Place it apart, by itself.)

Continue by asking for examples of foods as follows, and place them apart:

- o Give one food that has oil / fat.
- o Give one food that is from an animal
- o Give one food that is from a plant that is not a vegetable or fruit or grain (legumes)
- o Give a food made with added sugar.
- o Give a food that is salt or has a lot of salt.

Continue until all the pictures are placed in a food group. If anyone makes a mistake ask the other participants if they agree or not, if all are wrong then correct them.

- “These are the food groups that we use when learning about healthy eating. The fruit, vegetable and leaves group is divided into two groups. Some of these foods have the important nutrient, vitamin A. These foods go in their own group, we call this Group A. You will learn more about vitamin A later in this training. Which foods are high in vitamin A?” (If anyone knows use their information, otherwise provide it.)

2. Here is a poster with these foods grouped in this way. Show the food guide picture.

- “Have you seen this before?”
- “Have you seen something similar to this before?”
- “What does this picture teach you about foods?”
- “We will now learn more about these foods and how they help promote good health.”

Record the responses made in this session for inclusion in your training report. This information is useful to find out who has had nutrition training in the past.

- “This picture is used to remind people about the ‘Guidelines for Healthy Eating’ that you are going to learn about now.”
- “You will have more chances to discuss the meaning of this picture.”

3. Show the sentence card **Eat a variety of foods.**

- “What do you think that this statement means?”

Get a lot of feedback, probe to find out what participants think that “variety” means.

Explain:

- This guideline statement teaches us to eat a variety of foods; this means we should all eat different foods from within one food group, and should also eat foods from different food groups. (Point to the food guide picture as you explain this).
- The reason for this is that people who eat a variety of food are more likely to get all the nutrients that they need compared to people who only eat a few kinds of foods.
- Nutrients are the goodness in food that we need for good health.
- Different nutrients have different functions in the body.
 - Some nutrients in food provide energy to work, to play, to live and to be healthy.
 - Some nutrients in food provide substances to help the immune system to help the body fight sicknesses.
 - Some nutrients in food provide the building blocks for the body, so people can grow and the body can repair itself as it ages.

Now discuss reasons participants may find it difficult to follow the message in this guideline (in the same way as they discussed difficulties in getting some types of foods, in session 1). This can be done as small group work where possible.

- “What makes it difficult for you to eat a variety of foods?”
- “How can this problem be solved?”

Some possible problems and their solutions are:

- Little variety available locally / Learn how to grow more kinds of foods.
- Too far to go to town to buy food / Produce as many kinds of foods as you can at home.
- Family do not like to change / Explain why family members need variety, and encourage them to give ideas of foods they are happy to eat

Encourage discussion about variety in all food groups.

Record the responses made in this session for inclusion in your training report. This information is useful to find out what support communities need to improve their eating plans

4. Show the sentence cards for the next guidelines, and using whole group discussion or small group discussion with feedback; discuss each one by asking:

- What do you think this statement means?
- Which foods are referred to in this guideline?
- What make it easy or difficult for you to follow this guideline?
- What can you do to overcome difficulties?

Conclude this section by explaining that this session has shown what foods they must eat to have healthy eating plans. They will find that they are already doing many things which are good for healthy eating, but there may be some changes that they will need to make.

Eat rice, cassava or other whole grains, roots or tubers as part of meals.

Eat plenty of fruit, vegetables and green leaves at every meal.
Include at least one serving from the groups that are good sources of vitamin A.

Eat beans, peas, lentils or soya every day.

Eat fish, poultry, meat, milk or eggs every day.

Use oil sparingly and eat seeds and nuts.

Use iodized salt, but use it sparingly.

Use sugar and foods and drinks made with sugar sparingly.

Use safe water.

5. Mixed meals card game.

Participants work in groups. Deal the game cards, so that each group receives the same number of cards. Each game card has a kind of food, with symbols representing the main nutrients it provides. They must plan a day's food intake, using the guidelines for healthy eating, and aiming to get the correct amount of nutrients. Some groups may need to bargain with other groups to barter cards they have for cards they need.

After the game is finished ask the participants what they learnt; the main learning points are:

- o Different foods provide different nutrients
- o Some nutrients are found in very few foods, and so are hard to get in the eating plan.

Using the guidelines for healthy eating helps to plan meals that supply all the nutrients needed for good health.

6. Goal setting

- “Think of one thing that you will do differently to apply one of the messages in the guidelines. Try to think of something that you can start to do differently this week.”

Ask the group to share their goals.

- “Do you have any goals you will set which are more long term? Please share them with the group.”

If anyone has not raised it ask if anyone has plans to increase the variety of foods they will eat; will the extra foods come from home food production or from buying the food.

Give results of the average numbers of foods they eat and they buy (from the earlier bean exercise), ask how they can increase this.

Encourage them to set goals of nutritious foods that can be home produced that can be included in their regular eating plans.

7. Meal and menu planning.

Ask participants to describe their typical daily food pattern.

Ask for suggestions of how it can be improved to follow the messages in the guidelines and the food suggestions that they have listed in the previous point.

What changes may be needed in food production to make this easier to achieve?

What other changes are needed in the community to help achieve the guidelines?

Summarize by setting an action plan, with specific responsibility allocated, for any changes that can be implemented relatively easily, and those that will require follow up or external input.

10.3 TOPICS: NUTRITIONAL STATUS - DETERMINANTS AND OUTCOMES

Learning Objectives:

By the end of this session participants will:

- ✓ have learnt about the nutritional status of children and adults in Sierra Leone and know the consequences of under nutrition.
- ✓ understand the factors that contribute to good nutritional status (UNICEF conceptual framework on the causes of malnutrition in children).

10.3.1 Session Outline

Content	Items needed	Methods
Nutritional status of people in Sierra Leone / province / district.	Beans.	Interactive discussion
UNICEF Conceptual Framework on the Causes of Under nutrition in Children.	Pictures of factors that contribute to good nutritional status in children.	Discussion

10.3.2 Summary of Information

Information on undernutrition and the consequences

- People can become sick (malnourished) when their eating plans supply more or less nutrients than they need. Malnutrition is a result of under nutrition or over nutrition.
- There are other factors besides lack of food that contribute to under nutrition, such as the environment and health care.
- The type of under nutrition will depend on:
 - the nutrients that are missing
 - the age of the person
 - the amount of time that the eating plan has provided the incorrect amount of nutrients.
- Babies and children have a high risk of developing under nutrition, because their needs for nutrients are high.
- Children with under nutrition will not grow as well as they should and they may get sick often. Their brain will not develop as well as it should and the child may have difficulty at school when he / she is older.

Causes of under nutrition in children

- Poor nutritional status is not only due to poor eating habits, it may also be caused by frequent illness, lack of care and limited access to health care.
- People, especially children, who do not have access to adequate sanitation, clean water and a clean environment, are at high risk of developing under nutrition.

10.3.3 Exercise Summary

1	Understanding of under nutrition.	Presentation of key points.
2	Explanation of numbers of women and children in Sierra Leone who have under nutrition and the consequences.	Use of beans to illustrate statistics.
3	Factors that contribute to good nutritional status in children.	Discussion with drawings.
4	Participant commitment to spread this message.	Personal goal setting, relating to changes in piles of beans.

10.3.4 Exercise

1. Explain the following:

- When we talk about health of people we think of many different kinds of sicknesses that could stop them being healthy.
- Go around the group and ask them to name different kinds of sicknesses that are found in their community; this could include malaria, TB, HIV, measles, pneumonia, parasite infections, diarrhoea, cancer, diabetes, high blood pressure and so on.
- There is one kind of sickness that many people, especially children have that does not make the person look different. This is under nutrition, this happens when the person does not have enough of the correct food, for a long time.
- When children have under nutrition they do not grow well, when they get to school they cannot learn well, and when they are adults they are not as strong as they could be.
- When pregnant women have under nutrition they are very tired and their baby does not grow as well as it should.

2. Place beans in 3 pre-counted piles of 100.

Tell participants that these piles of beans each represent 100 people from the group specified in Sierra Leone / the Province / the District (facilitator to get information depending on availability). The groups are:

- Pregnant women with anaemia
- Children under the age of 5 with long term under nutrition
- Children under the age of 5 with a shortage of vitamin A in their body

Ask for input on how many people they think have this condition. Get feedback from a number of people.

Give the information from health statistics. Ask someone to count out the number of beans to show this.

The national statistics are

- Pregnant women with anaemia: 62 out of 100
- Children under the age of 5 with long term under nutrition: 34 out of 100
- Children under the age of 5 with a shortage of vitamin A: About 47 out of 100

“Do you think this is a problem for our country / province / district?”

“What can we do to help?”

It is likely that many answers will relate to the discussion already conducted about healthy eating.

Agree with these comments; ask if there are any others?

Explain that in the next session you will discuss food needs of pregnant women and young children. Before that you will continue to discuss the factors that help young children to be healthy or that may cause them to have under nutrition.

3. Place the picture of a healthy well-nourished child (under the age of two) on the board.

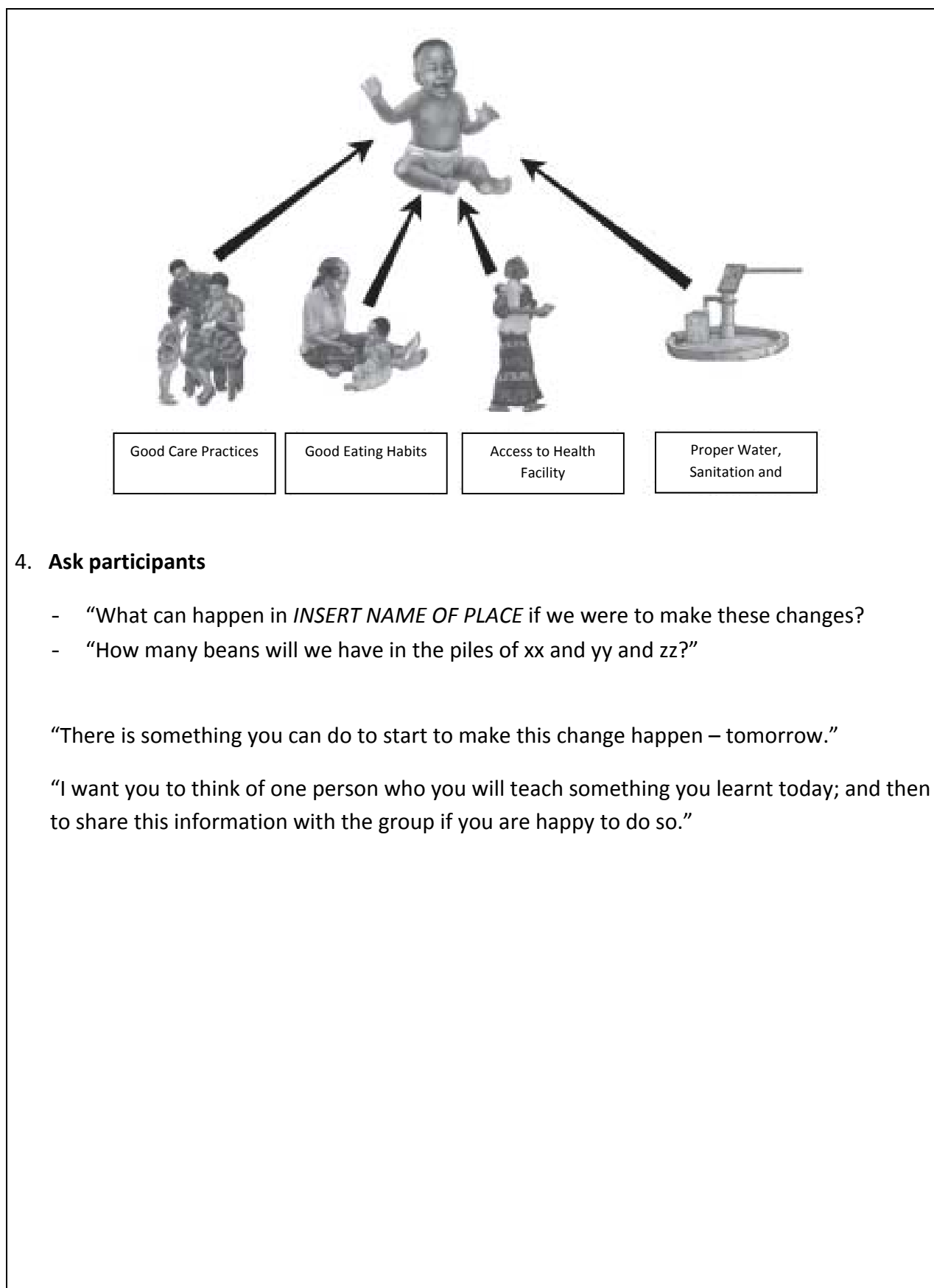
Ask participants to name all the things that are needed to have a healthy child; as participants mention items place that picture on the board.

Guidance:

You may need to probe to get input needed for this discussion.

Confirm that participants understand why many of these reasons apply specifically to children under the age of two, and some also apply to children aged from two to five.

If they do develop malnutrition at this age some of them may not be able to catch up the growth and development when they are older.



4. Ask participants

- “What can happen in *INSERT NAME OF PLACE* if we were to make these changes?”
- “How many beans will we have in the piles of xx and yy and zz?”

“There is something you can do to start to make this change happen – tomorrow.”

“I want you to think of one person who you will teach something you learnt today; and then to share this information with the group if you are happy to do so.”

10.4 TOPICS: NUTRITION DURING THE LIFECYCLE (TIMES OF SPECIAL NEEDS)*Learning Objectives:*

By the end of this session participants will:

- ✓ Understand that women and children have different nutrient needs at different stages of their lives.
- ✓ Recognize that if women and children do not get the foods needed to supply these nutrients they are at increased risk of developing undernutrition

10.4.1 Session Outline

Content	Items needed	Methods
Special food needs of pregnant and lactating women, babies and young children.	Flip chart illustrations (from MoHS or UNICEF IYCF chart ¹).	Brief presentation and discussion. Record of answers from game for final report.

10.4.2 Summary of InformationPregnancy

- Pregnant women must follow the guidelines for healthy eating.
- Pregnant women should eat an extra small meal or big snack a day.
- Pregnant women should include animal and milk foods a few times each week.

Lactation

- Women who are breastfeeding must follow the guidelines for healthy eating.
- Women who are breastfeeding should eat an extra portion of starchy food at each meal and should eat two extra snacks a day.
- Women who are breastfeeding must drink lots of clean water every day.

Babies less than 6 months of age

- From birth until the age of six months babies need only breast milk. This supplies all the water and nutrients that they need.
- Young babies who receive only breast milk are more likely to be healthy and grow well than those who receive no breast milk, or who are given breast milk and other foods and liquids.

Babies and young children (complementary feeding)

- Breast milk continues to be an important part of a baby's diet from 6 months until 24 months and beyond.
- At six months babies must start to get a variety of soft food, several times a day.

¹ Suggested that these drawings are converted into line drawings, in the style of artwork for other illustrations in this programme, but clearly repeating the same messages as the source material.

- The amount and variety of food must be increased each week, and the texture changed to lumpy then gradually to family foods.
- Everything must be very clean when food is prepared for babies and young children. Caregivers must wash their hands with soap and water before preparing food and before feeding babies and young children.
Young children must have their hands washed.

10.4.3 Exercise Summary

1.	Knowledge evaluation game.	Using standard questionnaire to determine baseline knowledge.
2.	Facilitated discussion. Food needs of pregnant and lactating women.	
3.	Food needs of babies and small children.	
4.	Conclusion.	Repeat of standard questionnaire and discussion of questions; so as to reinforce main messages.

10.4.4 Exercise

1. Knowledge evaluation game

Ask participants to sit in a circle, facing outwards (so they cannot see each other).

Explain that you are going to ask some questions; they will give a hand signal to illustrate their answer. They are to put one hand in the air with one finger if the answer is yes, and two fingers for no. If they do not know the answer they must put a fist.

(The questions are below under 10.4.5 Group quiz and information on answers)
Some questions may be adapted for regional needs if required.

When finished tell them that they are going to learn more about food needs of pregnant women and young children. When the session is finished you will go through these questions again, to discuss the answers.

Guidance:

The number of people who have indicated yes and no for each question must be recorded on the facilitator feedback sheet.

2. The discussion will start with food needs of pregnant women and women who are breastfeeding.

Show the picture and discuss the messages in the picture with the participants, the questions below can guide the discussion.

The whole group can be broken into smaller groups with discussion and feedback for each question.



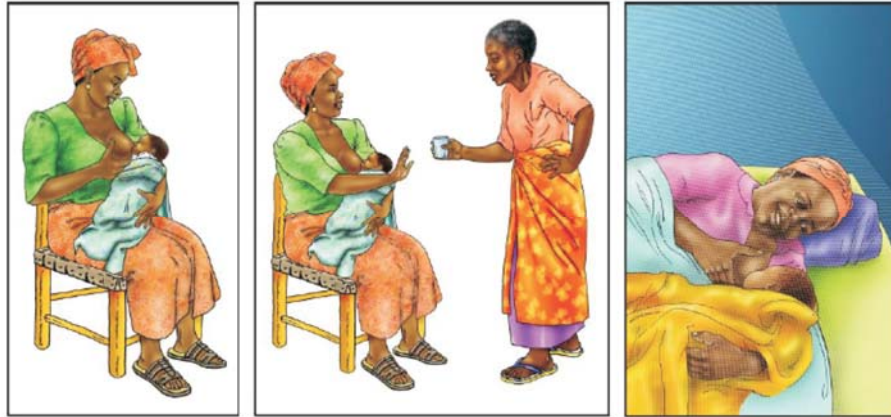
- “What do you see in the picture?”
- “What do you think are the important messages we want to teach when we show this picture?”
- “Can anyone tell us something they have learnt about healthy eating for pregnant women and women who are breastfeeding?”

Listen to the suggestions then sum up by emphasizing the main messages for this training (from Summary of Information above).

3. Show the next four pictures at one time.

They are all about feeding babies and children under the age of two years. Repeat the questions and method used above. What are the messages in these pictures?

0 to 6 months of age



- “The first picture shows us that a small baby must get breast milk and nothing else. It must also get breast milk at night.”
- “Even if anyone encourages you to give the baby something else to drink or eat you must not give it to the baby.”

6 to 9 months of age



- Still give your baby breast milk
- Wash your hands with soap and clean water
- Give porridge “Pap” but it must not be too runny
- Give the baby food four times in the day

9 to 12 months of age



- The same as above, except feed the baby 5 times in the day
- Give the baby some food to hold to feed itself

12 to 24 months of age



- The same as above, give the baby more food to hold, still be nearby to help the baby feed.

4. Repeat the questions given in the initial quiz, and discuss the answers.

Participants must have a chance to query any questions that they got wrong.

10.4.5 Group quiz and information on answers

Participants may answer Yes (one finger), No (two fingers) or I do not know (fist).

1. Women who are pregnant must continue to eat as normal; they do not need extra food.
Answer: NO. Pregnant women need extra food. They must eat an extra small meal or big snack each day.
2. Women who are pregnant must eat more meat than men.
Answer: YES. Pregnant women need the good nutrition from meat (and other food from animals) more than men do. If the family only have a little of these foods they should be given to the pregnant woman to eat.
3. Women who are pregnant should not eat fish.
Answer: NO. Pregnant women should eat fish if they can get it. If it is easily available they should eat it several times a week.
4. Women who are breastfeeding must give the baby to someone else at night so they can sleep well.
Answer: NO. Babies must be breastfed at night and during the day.
5. The baby from a woman who did not have enough food when she was pregnant may be born too small and have health problems.
Answer: YES. Women who do not have enough food when they are pregnant may have babies who are born small. These babies may have more health problems than bigger babies.
6. Babies who are breastfed when they are small must be given water to drink on hot days.
Answer: NO. Babies under the age of six months must only have breast milk. They do not need water, porridge or any foods until they are six months old.
7. Small babies who are being breastfed must also get porridge “Pap” to eat.
Answer: NO. Small babies must get only breast milk until they are six months old. They must get breast milk many times a day and at night.

8. Babies must start to eat porridge “Pap” when they are six months old.

Answer: YES. All babies must start to eat foods when they are six months old. They must also still get breast milk. In communities where porridge “Pap” is often eaten it is a suitable food for babies. Babies should get enriched porridge “Pap” (porridge with other foods added).

9. Vegetables are important foods for children.

Answer: YES. Vegetables are important foods for all people. Children and pregnant women and women who are breastfeeding should eat at least one vegetable or fruit from group A everyday.

10. It is important to wash your hands before preparing food for young children.

Answer: YES. When you wash your hands you remove the germs that could make children sick.

10.5 TOPICS: PERSONAL AND HOUSEHOLD HYGIENE

Learning Objectives:

By the end of this session participants will:

- ✓ Recognize the importance of hygiene in the prevention of diseases.
- ✓ Identify key actions for implementation of good personal and household hygiene.
- ✓ Identify key actions for implementation of good hygiene for food storage and preparation.

10.5.1 Session Outline

Content	Items needed	Methods
Germ theory	Items for hand washing Flip chart picture with elements for germ multiplication (water, food, warmth, time)	Presentation. Demonstration and practice of hand washing
Role of personal and environmental hygiene to prevent diseases	Flip chart pictures of household with hygiene elements emphasized.	Discussion of picture
Key messages for food safety	Pictures of key messages of food safety Case study story	Case study discussion

10.5.2 Summary of Information

Information about germs and how they cause sicknesses

- Germs are all around us. Some germs cause sicknesses. Germs are very small, we cannot see them.
- Germs multiply very quickly when conditions are good; they need water, food, time to multiply and they multiply quickly at warm temperatures (not at very cold or very hot temperatures).
- Germs cause illness when they get into the body.
Some germs come from the air (e.g. germs that cause colds or TB can be spread when people cough or sneeze); other germs enter through the mouth through food, water, dirty hands or dirty utensils used for preparing food.

Ways to prevent germs from causing sicknesses

- Good hygiene helps to prevent diseases that come from germs.
- Everyone should try to prevent the spread of germs. This can be done by:
 - Washing your hands (in the way to get rid of germs) after you have been to the toilet.
 - Wash your hands before you start to cook food and before you eat.
 - Cover your mouth when you cough or sneeze.
 - Keep the household and the environment clean to stop the spread of germs.

Steps to safer food

- Many people get sick because the food they eat or water they drink contains too many germs. They may get diarrhoea and vomiting from food poisoning, or they may get other sicknesses.
- The people who are most sensitive to food-related sickness are young children, the elderly and people who are already ill.
- Stop germs from food from making you and other people sick. You should:
 - Keep everything clean.
 - Keep raw food and cooked food separate.
 - Cook food, especially meat, chicken, fish and eggs, thoroughly.
 - Keep food at safe temperatures, hot food must be eaten hot and cold food cold.
 - Use safe water and safe food.

10.5.3 Exercise Summary

1	Explanation of germ theory.	Discussion causes of illnesses, information on germs.
2	Examples: germ multiplication with time, food, water, temperature.	Poster discussion.
3	Clean hands.	Picture of occasions to wash hands. Demonstration.
4	Personal and household hygiene.	Poster of household for discussion.
5	Food safety and food hygiene. Keep clean.	Key steps poster.
6	Case study	Story and discussion.

10.5.4 Exercise

1. Ask participants if they know what causes diseases like colds, diarrhoea and TB?

The answer is germs (or any other word indicating disease causing micro-organisms).

- “We learn about germs to help us to learn how to prevent the sicknesses that are caused by germs.”

Explain that before you go further in this session to discuss what people can do to try to prevent germs causing illness in their families you will explain a bit about germs.

- Use the information from above, about germs and how they cause sickness.
- Note that some diseases that are caused by germs can be prevented by immunization e.g. measles.

2. When conditions are right germs will multiply very quickly.

This means that one germ will become two, and two will become four, and four will become eight and so on.

When there are a lot of germs present they are more likely to cause sicknesses, or to cause more severe sicknesses. Different germs cause different kinds of sicknesses.

Germs are able to multiply when the conditions are right. They do not need a male and a female germ; they multiply by dividing into two.

Germs need the following to be able to multiply:

- water
- food
- warmth
- time

- “Let me use rice as an example.”
- “When I keep this rice in a container with a lid, and I keep it dry I can keep it for a few weeks.”
- “If I take the rice and cook it I can only keep it for a few hours, not a few weeks. I have added water to the rice, so any germs that are there can now multiply. They will get their food from the rice.
- “When I first cook it the germs cannot multiply because the mixture is too hot, but when I let it cool down a bit they can multiply. If I eat it straight away then there is no time for the germs to multiply and reach the level where they are dangerous to my health.”

Guidance:

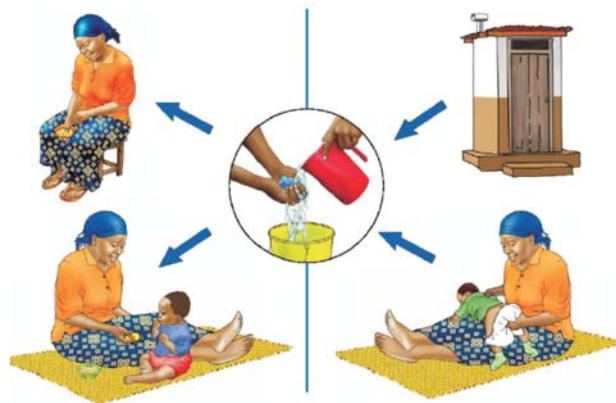
Check for understanding of the four factors that allow for rapid multiplication of germs. Use other examples if needed; such as fish, or cut up fruit.

An important way to stop diseases caused by germs is to limit the number of germs that are in our environment or that get into our food.

This is done by keeping everything clean.

3. “Keeping our hands clean is an important step to prevent the spread of germs”

- “How do germs get onto our hands?”
 - Touching things that have germs on them such as pets, soil, our hair, runny noses.
 - Cleaning a baby’s bottom.
 - When we go to the toilet.
- “Can germs that are on our hands multiply on our hands?”
 - Are our hands warm? – Yes
 - Is there moisture on our hands? – Yes
 - Is there food on our hands? – Yes
 - Is there enough time? – Yes.
- “If we have just a few germs on our hands they can multiply and then reach a level where we spread germs from our hands to others and to the things we touch.”
- “The best way to prevent this is to wash our hands.”
- What are the most important times to wash your hands?”
 - After going to the toilet.
 - After cleaning a baby’s nappy.
 - Before cooking.
 - Before feeding children.
 - Before eating yourself.
 - After contact with sick people.



- “When you wash your hands it is important to get rid of as many germs as possible.”
- “This is done by making sure you wash your hands for long enough, you use soap or ash and you wash all parts of your hands.”

➤ Demonstration of hand washing

4. Personal and household hygiene

Describe a household scene (or draw on a chart) with the issues such as those listed here included: a child defecating behind a bush, a child eating a banana and feeding some to a toddler, banana skin on the ground with flies on it, an old lady washing her hands from a tippy tap as she leaves the toilet, water container which is covered, young lady sweeping, dog lying in sun with dog stool nearby.

- “Let us look at this picture of a household scene in a village. You are going to talk about it.”

Let small groups discuss and explain what they see in the picture relating to personal and household hygiene; they should mark it on the picture to remind them.

- “What do you see happening in the picture?”

Get groups to give their feedback. Then go through the points again and ask:

- Is this common practice in our community?
- Is it a good or a bad action?
- What is the reason for it being good / bad?
- If it is bad what should they do instead?

Then go through the points again and ask:

- How do you feel about people doing this?
- Why do you feel this way?
- What difficulties could this family experience to do these things?
- Are there ways to help them overcome these barriers?

Ask if anyone will be happy to share ideas of things they would like to do differently at their homes?

5. Food safety and food hygiene

Explain to participants that they have named many of the aspects for hygiene for the household. Now you will discuss some that refer especially to food.

For each there is a key message and they will help you think of the points that are examples for that message.

KEEP CLEAN

What should be kept clean?

- Wash your hands before handling food and often during food preparation.
- Wash your hands before eating.
- Wash your hands after going to the toilet.
- Wash surfaces and equipment used for food preparation.
- Protect cooking areas and food from insects, pests and other animals.

WHY: Dangerous micro-organisms are found in soil, water, animals and people. These are carried on hands, wiping cloths and utensils.

Hands frequently transport micro-organisms from one place to another, so hand washing is very important.

Utensils that have been used to prepare raw meat, chicken and other meat products must be cleaned very well. These foods are often contaminated with dangerous germs. After being washed clean, they should be left to dry in the sun, or a well ventilated area – they must not be stacked or stored when damp.

The cleaning equipment, cloths and sponges must also be cleaned and left to dry. Germs grow faster in damp places.

For cleaning after a meal, remove leftover food or waste from plates before putting them in water. After washing leave dishes to air dry or wipe with a clean, dry cloth.

Protecting food preparation areas from pests

- Pests are rats, mice, cockroaches, flies and other insects. Pet animals also carry germs and pests on their fur, feet and feathers.
- Keep food covered or in closed containers.
- Keep rubbish covered and remove the rubbish regularly.

SEPARATE RAW AND COOKED

- Separate raw meat, chicken and fish from other foods.
- Clean everything well after raw food has been cleaned / cut.
- Store food in containers to avoid contact between raw and prepared foods.

WHY? Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous micro-organisms which may be transferred to other foods during food preparation, storage or serving.

How to keep raw and prepared food separate

- Wash plates and utensils used for preparing raw foods, use clean plates and utensils for cooked and prepared foods.

COOK THOROUGHLY

- Cook food thoroughly, especially meat, chicken, fish and eggs, to kill bacteria and spores.
- Bring foods like soup and stew to the boil to ensure they are hot enough.
- Reheat previously cooked food until it is hot right through. This will help to kill germs that have multiplied.

WHY? Proper cooking kills almost all dangerous micro-organisms. Studies have shown that cooking food to a temperature of 70 °C can help ensure it is safe for consumption. Foods that require special attention are minced meat, rolled roasts, large joints of meat and poultry.

How to cook food thoroughly

- Food must be very hot inside to kill dangerous germs and make it safe to eat. At this temperature, even high concentrations of micro-organisms will be killed.
- Follow these guidelines for foods most likely to be contaminated:
 - Cook poultry until the juices are clear and the inside is no longer pink.
 - Cook eggs and seafood until piping hot.
 - The centre of an intact piece of meat has no germs, it is sterile. Most bacteria will be on the surfaces, from the exposure to knives, boards, hands etc.
 - Reheat precooked food until it is piping hot again, so as to kill any micro-organisms that may have grown after it was stored.

KEEP FOOD AT SAFE TEMPERATURES

- Do not leave cooked food at room temperature for more than two hours.
- Keep cooked food hot before serving.
- Do not store food too long, even if in the refrigerator.

WHY? Micro-organisms can multiply very quickly if stored at room temperature. By keeping temperatures below 5 °C or above 60 °C, the growth of micro-organisms is slowed down or stopped. Some dangerous micro-organisms still grow below 5 °C.

How to keep food at safe temperatures

- Prepare the correct amount of food, so as to reduce the amount of leftovers.
- Keep hot food hot. Do not keep food warm for a long time after cooking, before serving it.

USE SAFE WATER AND RAW MATERIALS

- Use safe water or treat it to make it safe.
- Select fresh and wholesome foods.
- Wash vegetables and fruit.
- Do not use food that is damaged or rotting.
- SAFE means water and food is free from dangerous germs and chemicals.

WHY? Raw materials, including water, may be contaminated with dangerous micro-organisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods.

Tell participants that you read a story in a newspaper, and you are going to tell the story to them.

After that you will all discuss it and identify things that the family could have done differently to prevent the tragedy that happened.

Family tragedy ruins celebration (The story can be modified to best suit the local situation)

York Village: Yesterday members of the Yomba family were celebrating the traditional initiation ‘*Poro Society*’ of their oldest son. This celebration turned into a tragedy when traditional dancers and family members started to feel the effects of the meal that they had shared. Food poisoning is to blame for the death of 2 family members, the hospital admission of a further 14 and severe diarrhoea, being managed at home, of another 20 family members.

Finda Yomba is one of the lucky ones who escaped illness. “I am a vegetarian now, so I do not eat meat. I had some “run belleh”, and was planning to look for something else to eat later. I think it must have been the meat that made them sick”.

Doctors at the nearest hospital confirm Finda’s suspicion. “The symptoms in the patients who presented for admission do indicate that this is due to something that they had eaten. Samples have been sent for testing,” said the doctor in charge (Dr. Bernard), “it is tragic that two family members lost their lives due to this poisoning. The youngest traditional dancer and the “Soko-Bana” both passed away hours after admission.”

Health inspectors are investigating and samples of leftover food have been sent for testing. Results will be available later this week. One inspector, who asked not to be named as this is his opinion, gave “The Times” several possible factors that could have contributed. The actual cause or causes will be revealed as soon as possible.

Ask participants to identify possible causes of this food poisoning. Use the five key points to guide the discussion. The possible answers include:

Keep clean

- Those who prepared the food had not washed their hands with soap /ash and water.
- The containers used for the meat were not clean.
- Flies or other insects settled on the cooked meat and contaminated the meat with germs from their bodies. These germs then multiplied to dangerous levels.

Separate raw and cooked food

- The cooked meat was placed into the dish that had been used for raw meat and was contaminated by uncooked meat juices. The germs in the meat juices are killed when the meat is cooked, but the uncooked juice is still contaminated.

Cook thoroughly

- The meat was not well cooked and thus bacteria were not killed.

Keep food at safe temperatures

- Not all the meat was eaten straight after it was cooked, so it stayed warm (not hot) for a long time, then it was eaten later. Bacteria then had a chance to multiply because the food was in the danger zone for a long time.

Use safe water and raw materials

- The meat was not sourced from a reliable supply and was heavily contaminated with pathogens (disease causing micro-organisms).

Ask participants if they can think of a reason why the youngest and oldest died?

- Some people are more at risk for food poisoning than others. Young children do not have fully developed immune systems, and thus their bodies cannot fight infection fully. The elderly are at risk as their immune systems are no longer functioning fully.
- The severity of the illness would be influenced by the health of the person.
- Someone with a compromised immune system would be more likely to get severely sick than someone who is healthy.
- Someone who had a large portion would take in more germs than others, and will thus be more likely to be sick.

10.6. TOPICS: CONCLUSION*Learning Objectives:*

By the end of this training module participants will be able to:

- ✓ help FFS members make changes to their daily activity, food production, and daily life to contribute to healthy eating and a healthy lifestyle
- ✓ recognize their role to contribute to improved health of communities by:
 - Production of variety of foods, including those that supply key nutrients
 - Encouraging consumption of foods needed by the family
 - Guiding people in good personal, environmental and food hygiene.
 - Storage and preservation of food to preserve quality and safety

Guidance:

The objective of this session is not one of learning for participants, but rather for feedback to be given to facilitators.

10.6.1 Session Outline

Content	Items needed	Methods
Post training knowledge evaluation	Questionnaire	True / false / I do not know circle quiz
Summary	Teaching aid from each section	Feedback discussion

10.6.2 Activity

1. Ask participants to sit in a circle facing out (as was done previously). Develop one or two questions and answers from each of the five sessions above and ask participants to give answers by indicating one finger, two fingers or a fist (as earlier described above). Record the answers.
2. Use a teaching aid from each section to ask participants to recall main messages and actions from each learning area.
As each section is covered revise the question from above on that section, and give the correct answer.
Ask participants to give feedback on whether or not they found the content useful, and whether or not they will change something they do in the future based on this.
3. Thank the participants for their attendance and encourage them to continue to learn about actions for improved health and development for their families and communities.

Note:

This training module has been adopted from the Farmer Fields School material developed by FAO, Mozambique. The illustrations on nutrition during pregnancy and lactation, infants and young children are from the Sierra Leone Infant and Young Child feeding package.