

A MANUAL ON FOOD BASED NUTRITION FOR WOMEN FARMER GROUP



**Improving Food Security of Women and Children by Enhancing Backyard and Small-scale Poultry Production
in the Southern Delta Region**

**Trainers Manual on Selected Topics in Food Based Nutrition and Trainer’s Guide for Training Facilitation
Compiled under the “Improving Food Security of Women and Children by Enhancing Backyard and Small-scale
Poultry Production in the Southern Delta Region (GCP/BGD/048/USA)**



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SESSION 1
HYGIENE AND SANITATION

Objectives:

At the end of the training, participants will be able:

- To understand why hygiene is important to prevent diseases
- To understand what are the critical points when washing hands is particularly important
- To learn the 6 steps of effective hand washing
- To learn how to install a tippy-tap: a handy and cheap solution for hand washing
- To understand most important points for keeping the household and its surroundings clean and hygienic
- To understand the principles of hygienic food preparation
- To understand the principles of hygienic food and water storage

Key messages: (to review with participants at the end of the training)

Lack of good hygiene causes diseases and illnesses

A clean house and living area is required to reduce number of germs and let us be healthy.

1. Be clean

- ✓ Good hygiene protects you and your family against diseases
- ✓ Brush your teeth after getting up from bed in the morning and before going to sleep at night.
- ✓ Take regular bath and wash your face with soap.
- ✓ Keep your nails short and clean.

Wash hands with clean water and soap repeatedly

- ✓ Wash your hands after going to the toilet or cleaning a baby's bottom
- ✓ Wash your hands after touching animals or cleaning their sheds
- ✓ Wash your hands before eating and feeding children
- ✓ Keep your nails always short, germs grow under nails where dirt accumulates and it is hard to wash them out from there.

2. Keep your household and its surrounding clean

Keep your household clean and safe

- ✓ Arrange soap and water at cooking place, child feeding place and toilet
- ✓ Remove household waste and dirty water from the homestead area
- ✓ Remove human and animal feces from the homestead area
- ✓ Keep livestock away from the household and ensure clean and hygienic shed for domestic animals

3. Store foods safely

- ✓ Cover foods with lids, food cover or a clean cloth to protect them from insects, pests and dust
- ✓ If you have stored food between meals, reheat it to high temperatures (boiling) just before serving

4. Use only safe water

- ✓ For cooking and drinking use only safe water, such as green tube well or water from a protected source.
- ✓ Collect water in a clean container and store it covered.
- ✓ Don't touch clean water with unclean spoons, utensils or hands.
- ✓ Never put food or water in empty containers that have been used for chemicals/pesticides/detergents

Lack of good hygiene causes disease and illness







Training aids required

- Flip Chart paper, marker pen, poster.

Time: 1h50min talk, Q&A, demonstration, exercise & discussion

Time	Content	Method
5 min	<p>Introduction</p> <p>Welcome the participants</p> <p>Introduce trainer(s)</p> <p>Enquire participants' experience of subject in a general way – e.g. ask, 'How many times you wash your hands in a day?'</p> <p>State: "Hygiene is very important to keep body free from disease"</p> <p>Explain why the training is important – motivate them!</p> <p>Distribute notebooks and pens</p>	<p>Talk</p> <p>Discussion</p> <p>Talk</p>
15min	<p>Hygiene and Diseases</p> <p>State: Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases. It therefore includes a set of practices associated with the preservation of health, for example hand washing, environmental cleaning, water and sanitation and safe disposal of household waste.</p> <p>Ask: What makes us sick?</p> <p>Germs and dirt</p> <p>State: Germs are small organisms which grow on dirt, especially if the dirt contains food leftovers, animal or human feces. Germs grow also on human body, especially in the nose, mouth, nails and on animals. Whenever we touch something we leave our germs on it and germs from its surface stay on our hands.</p> <p>State: A clean house and living area is required to reduce number of germs and let us be healthy.</p> <p>Ask: What happens when germs get into our food?</p> <p>State: Germs make us sick because they get into our food and we eat them.</p> <p>When we eat germs we get food poisoning: we get stomach ache, fever, feel weak, don't have appetite, often we get diarrhea and we vomit.</p> <p>Ask: what happens when a child or an adult get diarrhea and vomit?</p> <p>State: They lose nutrients and water from our organism and we cannot replace them because we can't eat.</p> <p>Ask: What happens next?</p> <p>Facilitate the answers below:</p> <ul style="list-style-type: none"> • Children become undernourished and they stop growing • Adults are tired and can't work • Children can't go to school and learn • Small children require more attention can't sleep and cry <p>State: More than half of all illnesses and deaths among young children are caused by germs that get into their mouth through food, water or dirty hands. These illnesses, especially diarrhoea, can be prevented by good hygiene practices.</p> <p>Say: Now I will tell you what are the most common sources of germs in our food</p>	<p>Question- answer</p> <p>Participatory discussion</p>

	<p>which make us sick. In each case contamination can be prevented by good hygiene. You will try to guess how to prevent contamination from these sources.</p> <p><i>Engage participants into answering which prevention methods can be taken in the case of each of the contamination sources. Help them to guess themselves, then read the prevention methods in red.</i></p> <ul style="list-style-type: none"> • <i>Fingers of a person who prepares food</i> – CAN BE PREVENTED BY HAND WASHING • <i>The toilet, and dirty hands</i> – CAN BE PREVENTED BY KEEPING HOUSEHOLD CLEAN • <i>Poultry meat and eggs</i> • <i>Other meat</i> • <i>The soil on vegetables</i> <p style="margin-left: 300px;">} CAN BE PREVENTED BY SAFE FOOD HANDLING</p> <ul style="list-style-type: none"> • Food which was stored in the room temperature between meals } CAN BE PREVENTED BY PROPER STORAGE AND REHEATING FOOD • Water – CAN BE PREVENTED BY USING WATER FROM SAFE SOURCES 	
10min	<p>Critical points for hand washing</p> <p>State: Good hygiene protects you and your family from diseases</p> <p>State: Dirty hands are the most common source of food contamination. Washing hands before cooking and eating and after the critical activities will eradicate the frequency of suffering from food poisoning by all family members.</p> <p>Ask: Which are the activities after which we should always wash our hands with soap? When do our hands get dirty?</p> <p>Let the participants give their guesses. Ask leading questions to help them guess the activities listed below:</p> <p>Wash hands with clean water and soap or ash especially after:</p> <ul style="list-style-type: none"> • <i>Going to the toilet or cleaning a baby's bottom;</i> • <i>Washing dirty bed linen or surfaces contaminated with feces;</i> • <i>Handling animals;</i> • <i>Before and after preparing food and eating;</i> • <i>Before feeding a child or sick person.</i> <p>Ask: where should we keep soap so we can always wash our hands when needed?</p> <p>Let the participants guess, then answer: cooking area, feeding and eating area, latrines and poultry and livestock sheds.</p>	Question- answer Participatory discussion
10min	<p>6 steps of hand washing</p> <p>State: Washing hands with soap should last for minimum 20 seconds</p> <p>Say: To wash hands effectively, meaning to remove all the dirt and dangerous germs, we have to apply water and soap on our hands and we should follow the six steps as follows: <i>Read the points demonstrating them as on the pictures below</i></p> <ol style="list-style-type: none"> 1. scrub palms, 	Participatory demonstration

<p>10 min</p>	<ol style="list-style-type: none"> 2. back of hands, 3. between fingers, 4. finger tips, 5. thumbs and 6. wrists and fingernails <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Step - 1</p>  </div> <div style="text-align: center;"> <p>Step - 2</p>  </div> <div style="text-align: center;"> <p>Step - 3</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Step - 4</p>  </div> <div style="text-align: center;"> <p>Step - 5</p>  </div> <div style="text-align: center;"> <p>Step - 6</p>  </div> </div> <p style="text-align: center; color: blue; font-weight: bold;">Pic. 2: Six steps of hand washing</p> <p>State: Once hands are scrubbed thoroughly, rinse both sides of hand with water and wipe hands with a clean and dry towel.</p> <div style="background-color: #e0f0e0; padding: 5px; margin-top: 10px;"> <p>State: Keep your nails always short, germs grow under nails where dirt accumulates and it is hard to wash them out from there.</p> </div> <p><i>Now arrange some buckets of safe water and soap and make all the participants practice the six steps of hand washing.</i></p>	
<p>20 min</p>	<p>Making a tippy tap:</p> <p>Sate: Installing a tippy tap is a simple and cheap way of ensuring that you can easily wash hands in critical places: near the latrine, eating area, food preparation area and poultry and livestock sheds.</p> <p>Say: To build a tippy tap we need:</p> <ul style="list-style-type: none"> <i>A clean plastic bottle</i> <i>A rope or string</i> <i>A small knife or a nail</i> <i>A candle</i> <i>Matches</i> <i>A soap</i> <i>If possible a net bag</i> <p><i>Show the participants the tools which are needed to build a tippy tap, gather them around you (preferably go outdoors for this demonstration) and show them how to build a tippy tap following the steps below:</i></p> <p>The procedure:</p> <ol style="list-style-type: none"> 1. Heat up the knife or nail over the candle and use it to make a hole in the side plastic bottle, low and close to its bottom. 2. Fill the bottle with water and close the cap tight and tie the bottle to the pole with strings. Place tippy taps near to the critical areas: Latrine, food preparation and eating areas. 3. Hang soap in a net next to each bottle. 4. Open the cap slightly and the water will come out through the hole. 	<p>Participatory demonstration</p>

5. Wash your hands with water and soap



Fig. Installing a tippy tap on a tree
Source: SPRING promotion materials
– How to Build Your own Tippy Tap



Fig. Girl using a tippy tap
Source: SPRING promotion materials
– How to Build Your own Tippy Tap

10 min

Household Hygiene

Ask: What are the main sources of germs in our household?

Prompt the answers from the participants

State: In the homestead area the main sources of germs which can cause diseases are:

- Homestead waste
- Human feces
- Animal feces
- Domestic animals

Ask: How to minimise these threats?

Go with the participants through the precaution methods pointed below. Ensure their engagement and participation of everyone.

Remove household waste and dirty water from the homestead area:

- *Always dispose of rubbish in a pit and cover it.*
- *Do not let rubbish to build up – it can be a source of cross-contamination*
- *Household waste water can be disposed of safely by making a soak pit or a channel to the field or an area outside the house.*

Remove human and animal faeces from the homestead area

- Clean up animal faeces lying around to protect children from coming in contact with them
- *If it is not possible to use a toilet or latrine, everyone should always defecate well away from houses, paths, water sources and where children play. The faeces should be buried immediately.*
- *In case of dirtying clothes with faeces wash them and rinse with clean water and then keep in boiling water for 5 minutes.*

Keep livestock away from home and ensure clean and hygienic sheds

- *Make sure livestock sheds are well ventilated*

Question- answer
Participatory
discussion

- Clean livestock sheds and remove waste regularly
- Wash your hands truly after touching animals or working around the sheds

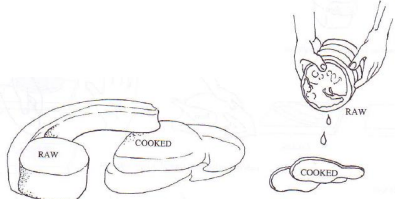

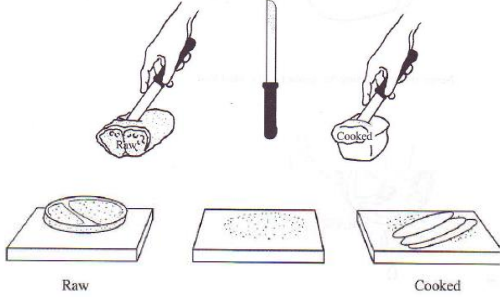
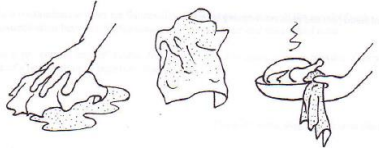
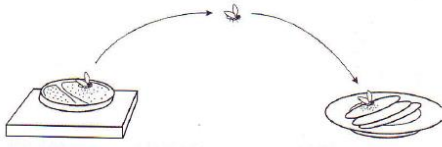
10 min

Safe Food handling

State: Another dangerous source of germs is raw food, especially meat. We have to be very careful when we cook to avoid spreading germs which are on raw food and contaminating cooked food with them.

Go with the participants through the precaution methods pointed below. Ensure their engagement and participation of everyone.

The principles of safe food handling:

	<p>Never let raw meat touch or drip into cooked meat</p>
	<p>Wash your hands before touching cooked food</p>
	<p>Wash kitchen equipment and surfaces after using them for raw meat and before using them for cooked food</p>
	<p>Dirty clothes are source of germs</p>
	<p>Protect food from flies and pests to avoid contamination with germs from other places</p>

	<p>State: these were the ways of avoiding cross contamination with germs from the raw foods to cooked foods. Now we will learn other important points for keepjg our food safe.</p> <p>State: Poultry is a key source of germs responsible for food poisoning if it is not handled or cooked properly.Poultry meat contains germs both on its surface and inside the body. Poultry meat should be always well cooked.</p> <p>How to recognize that chicken meat is sufficiently cooked?</p> <p><i>Prompt the answers from the participants, ask them about their methods.</i></p> <p><i>Explain to the participants the method below:</i></p> <p>Stick a knife into the thickest part of the meat that is being cooked down to the bone (base of the chicken leg is the part with the thickest meat layer). If the juices that come out are tinged pink with blood, the chicken needs more cooking. When the chicken is cooked the juices should be quite clear and the meat should come out of the bones easily.</p> <p>Finally discuss with the participants the last three key messages on reducing the risk of getting food poisoning:</p> <p>If you eat leftover foods from the previous meal reheat all cooked foods in a high temperature (boiling) just before serving.</p> <p>The person who had a food poisoning should not be involved in food preparation for the family during the sickness and for two days after. This is to avoid food contamination from the sick person.</p> <p>Sick, dying or dead animals should NOT be consumed; do not eat meat which contain lumps, does not look normal or has an unusual smell.</p>	
10 min	<p>Safe Storage of foods</p> <p>State: Food can easily get contaminated with germs during storage. It is important to store it safe to avoid contamination which can cause a food poisoning.</p> <p><i>Discuss with the participants two messages on storing foods:</i></p> <p>Cover foods with lids or a clean cloth to protect them from insects, pests and dust.</p> <p>Keep dry foods such as flours and legumes in a dry, cool place where they are protected from insects, rats and mice, and other pests.</p> <p>State: Water may become a source of food poisoning. It is very important to store it properly to reduce the threat that it gets contaminated with germs.</p> <p>Ask: What kind of precautions methods can be taken to avoid poisoning from water and prevent contamination of safe water during storing?</p> <p><i>Prompt the answers from the participants and discuss with them the points below:</i></p> <p>Storing water:</p> <ul style="list-style-type: none"> • Use clean and safe water • <i>Use safe water, such as treated pipe water, green tube well (arsenic free) or water from a protected source, such as a borehole or protected well (bathing and washing does not take place and the water is not contaminated).</i> • Water from unsafe sources such as ponds, rivers, open tanks and step-wells can be made safer by boiling rapidly for ten minutes. • <i>Use clean and covered containers to collect and store water.</i> • <i>Never put food or water in empty containers that have been used for chemicals/pesticides.</i> • <i>Don't touch clean water with unclean hands, use only clean cups to take</i> 	

	<p><i>water from the container.</i></p> <p><i>Keep animals away from drinking water sources and the household area.</i></p>	
10 min	<p>Close the Session</p> <p>Ask if they have any questions.</p> <p>Summarize the session with special emphasis on key messages.</p>	Talk, Q/A, discussion

SESSION 2

Basics on Food and Nutrition

Objectives:

At the end of the training, participants will be able:

- To understand the basic terms in food and nutrition
- To learn what are the basic food groups and their functions in the body
- To understand the principles of a balanced diet
- To understand the importance of combining foods from different groups and learn combinations which are particularly beneficial for us
- To learn in practice how to prepare a varied meal

Key Messages

1. No single food provides all of the nutrients needed for health and strength of our body. We need to consume a wide variety of different foods every day.
2. Basic food groups: There are 3 basic food groups such as:
 - Energy giving foods give energy and keep us active. Example of these foods are rice, bread, other grains and cereals, roots and tubers, sugar, oil, coconut, ghee, etc.
 - Body building foods are important for growth and building strength. Examples of these foods are meat, fish, egg, milk, lentils, nut, oil seeds etc.
 - Body protecting foods increase the immunity. Examples of these foods are: Dark green leafy vegetables and yellow vegetables.
3. Balanced diet
 - To stay healthy one should eat foods from each of the three food groups and at least two different foods from each food group on a daily basis.
 - A balanced meal can be prepared by a combination of foods from the three food groups which include:
 - A cereal, root or tuber and oil or coconut
 - Pulses, nuts or oilseeds, meat or fish, or other foods of animal origin(eggs or milk products)
 - Vegetables and fruits.
4. We should have 3 meals per day and 1 to 2 snacks per day.
5. Children who eat well grow well. Women who eat well are likely to have healthy babies.

Training aids required

- Flip Chart paper, marker pen, poster

Time: 2h talk, Q&A, demonstration, discussion, exercise

Time	Content	Method
5 min	<p>Introduction</p> <p>Welcome the participants</p> <p>Introduce trainer(s)</p> <p>Enquire participants' experience of subject in a general way – e.g. ask;” Why do we need to eat foods?”</p> <p>Explain why the training is important – motivate them!</p> <p>Distribute notebooks and pens</p>	<p>Talk</p> <p>Discussion</p> <p>Talk</p> <p>books & pens</p>
10min	<p>What is food and nutrition</p> <p>Ask: Why do individuals need to eat healthy foods? <i>Prompt the answers from the participants</i></p> <p>State: Consumption of healthy foods leads to a healthy, active and economically productive life. Eating a variety of foods can provide sufficient energy to be active; help in body grow and repair the injured and strengthen the immune system against diseases.</p> <p>Ask: What is Food, Nutrient and Nutrition? <i>Explain the three definitions below:</i></p> <p>Food is defined as “any substance, which is consumed in fresh, cooked, raw or processed form. It does not include drugs. Food is needed to perform various functions in the body and keep it healthy. The foods that we eat daily like rice, fish, pulses, vegetables and fruits are made up of a number of chemical components called nutrients.</p> <p>Nutrient: Substances which are used by the human organism for maintaining its metabolism and proper functioning.</p> <p>Nutrition:It is how our organism uses foods that we eat. Knowledge about nutrition helps us to know the kinds and amount of foods we need to eat to have healthy and productive life.</p> <p>There are many different nutrients. We divide them into:</p> <ul style="list-style-type: none"> ➤ Macronutrients that we need in large amounts to have strength and energy to work: ➤ Micronutrients that we need in small amounts (measured in milligrams or micrograms). There are many of these and they come from all sorts of different foods but the ones most likely to be lacking in the diet are: <p>State: No single food provides all of the nutrients needed for health and strength of our body. We need to consume a wide variety of different foods every day.</p>	
30 min	<p>The three different food groups that contribute to a balanced diet</p> <p><i>Explain to the participants that all the foods can be grouped into three food groups based on their functionfor the body and discuss with them the foodgroups as they are presented below.</i></p> <p>1. Energy giving foods</p> <p>State:Energy foods give energy to work and helpchildren to grow. This group includes foods rich in energy like cereals, roots and tubers, sugar, oils, butter and ghee.</p>	<p>Question-answer</p> <p>Participatory discussion</p> <p>Excercise with the food cards</p>

Engage the participants in listing foods which belong to this group. Examples are in the table below:

Table 1: Local energy giving foods

Cereals	Roots and Tubers	Fats/Sugar
Rice (Chal)	Potato (Alu)	Ghee (Ghee)
Maize / Corn (Vutta)	Sweet Potato (Mistialu)	Butter (Makhon)
Wheat (Gama)	Beetroot (Beet)	Oil (Tel)
Barley (Jab)	Turnip (Shalgam)	Sugar (Chini)
Rice Flakes (Chira)	Yam(Mateyalu)	Jaggery (Gur)
Semolina (Suji)		Coconut (Narikal)

2. Body building foods

State:This group includes foods which build our body and give us strength, help children to grow. These foods are also important for blood building to avoid anaemia and for bone building. This group includes pulses and legumes, nuts and oilseeds, milk and its products and meat and egg.

Engage the participants in listing foods which belong to this group. Examples are in the table below:

Table 2: Local body building foods

Pulses/Legumes	Nuts and oilseeds	Milk and Products	Meat and egg
Lathyrus (Khesari)	Groundnut	Milk (any)	Chicken
Chick pea (But)	(Badam)	Curd (Dahi/Doi)	(Murgi)
Green gram (Moong)	Sesame (Til)	Cheese	Meat
Lentils (Massor)	Pumpkin seed	(Paneer)	(Mangso)
Black Gram(Mashkolai dal)	(Mistikhumrabihi)	Buttermilk (Ghol)	Fish (Mas)
			Egg (Dim)

3. Protective foods

State:Protective foods are important part of the diet because they protect us from infections by giving immunity. They also help maintain body functions like building blood and keeping children's eyes healthy. These foods are: vegetables and fruits.

Engage the participants in listing foods which belong to this group. Examples are in the table below:

Table 3: Local protective foods

Vegetables	Fruits	Leafy Vegetables
Tomato (Tomato)	Mango (Aam)	Spinach (Palongshak)
Pumpkin (Misti kumra)	Papaya (Pape)	Red Amaranth (Lalshak)
Carrot (Gajar)	Pineapple (Anaras)	Colocasia leaves (Kochushak)
Okra (Derosh)	Dates (Khejur)	Mint (Pudina)
Bottle gourd (Lau)	Jackfruit (Kathal)	Sarisashak (Mustardl)
Ridge gourd (Jinga)	Sapota (Sofeda)	Amaranth leaves (Data shak)
Ash gourd (Jalikumra)	Wood apple (Bel)	Drumstick leaves (Shajnashak)
Snake gourd (Chichinga)	Hog Plum (Amra)	Indian Spinach (Puishak)
String bean (Barbati)	Aonla (Amloki)	Bottle gourd leaves (Lau shak)
Beans (Sheem)	Jambu (Jamrul)	Radish leaves (Mulashak)

10
min

	Vegetables	Fruits	Leafy Vegetables
10 min	Tomato (Tomato) Pumpkin (Misti kumra) Carrot (Gajar) Okra (Derosh) Bottle gourd (Lau) Ridge gourd (Jinga) Ash gourd (Jalikumra) Snake gourd (Chichinga) String bean (Barbati) Beans (Sheem)	Mango (Aam) Papaya (Pape) Pineapple (Anaras) Dates (Khejur) Jackfruit (Kathal) Sapota (Sofeda) Wood apple (Bel) Hog Plum (Amra) Aonla (Amloki) Jambu (Jamrul)	Spinach (Palongshak) Red Amaranth (Lalshak) Colocasia leaves (Kochushak) Mint (Pudina) Sarisashak (Mustardl) Amaranth leaves (Data shak) Drumstick leaves (Shajnashak) Indian Spinach (Puishak) Bottle gourd leaves (Lau shak) Radish leaves (Mulashak)
1h	<p>Ask: What is a balanced diet</p> <p>State: To stay healthy, one should eat foods from each of the three food groups, and at least two different foods from each food group on a daily basis</p> <p>Say: A balanced diet provides the correct amounts of energy and nutrients needed during the day to cover the dietary requirements of the person eating it. A balanced diet must be composed of a variety of foods from different food groups so that it contains all the macronutrients and micronutrients that a person needs.</p> <p><i>Discuss with the participants that a balanced diet is important because it:</i></p> <ul style="list-style-type: none"> ➤ Provides energy to work and learn; ➤ Is essential for pregnant and lactating mothers to have healthy children; is essential for children to grow; ➤ protects the body against illness (keep healthy). <p>Good meals</p> <p>State: We should have 3 meals per day and 1 to 2 snacks per day.</p> <p>Say: Eating good food, especially with family, is one of the pleasures of life. People who eat healthy, balanced diets are likely to have:</p> <ul style="list-style-type: none"> • plenty of energy to work and enjoy themselves; • adequate growth; • fewer infections and other illnesses. <p>State: Children who eat well grow well. Women who eat well are likely to have healthy babies.</p> <p>Food combinations</p> <p>Say: Very important part of our nutrition is how we combine foods in a meal. Components of different foods can become more nutritious for our body if eaten together. Now we will discuss this kind of combinations.</p> <p><i>Discuss with the participants examples of beneficial food combinations listed below. Ask them to give examples for each of them and ask if they have been already practicing some of them.</i></p> <ul style="list-style-type: none"> • Combine grains (rice), grams (pulses) and greens (vegetables) in proportions of 3:1:2 (Example: Kichuri) • Include even small amounts of meat or fish (30g) along with dark green leafy vegetables to improve dietary quality and help blood building components to be absorbed by the organism. 		

	<ul style="list-style-type: none"> • Add sour items like lemon, tomato, tamarind, boroi, hog plum and spices like chilli and coriander to meat, fish or dark green leafy vegetable preparations to enhance the availability of nutrients in the meal • Always add a little oil while preparing leafy vegetables and orange and yellow vegetables to enhance the absorption of nutrients that help vision and immunity <p>Say: Some of the components of foods can have a negative effect on other foods that's why we should avoid mixing them. One of these examples is tea, coffee and pan which have a negative effect on blood building components of foods.</p> <ul style="list-style-type: none"> • Do not drink tea or coffee or chew pan just before or 3 hours after a meal as they interfere with absorption of nutrients from the meal. <p>Cooking demonstration: Egg, vegetable, coconut curry</p> <p>Prepare groups from all the participants and guide them for prepare for participatory cooking demonstration.</p>	
	<p>Close the Session</p> <p>Ask if they have any questions. Summarize the session with special emphasis on key messages</p>	<p>Talk, Q/A, discussion</p>

SESSION 3
MATERNAL NUTRITION

Objectives:

At the end of the training, participants will be able:

- To state the consequences of chronic energy deficiency among pregnant women
- To learn the importance of a nutritious diet and the type and amounts of food to be given to women during pregnancy and lactation.
- To describe the most important points of care for pregnant and lactating women.

Key Messages

Pregnancy

Well nourished mothers have healthy babies

If a pregnant woman is undernourished, she is at risk of complications and difficult labor.

Pregnant and lactating woman should eat the same foods as the rest of the household members, but she should eat more than normally.

- In order to nourish the child in the womb a pregnant mother should take one extra meal a day and during each meal she should take more food than she used to before pregnancy.
- In order to nourish the child in the womb, a pregnant should eat plenty of blood and bone building foods like meat, fish, milk and its products, dark green leafy vegetables, pulse, molasses, nuts and seeds.
- No food items are restricted during pregnancy.
- The pregnant mother should take iodized salt for the physical and mental development of the child in the womb.
- The pregnant mother should take iron folate tablets everyday from recognizing the pregnancy to the third month after delivery.
- During pregnancy period a woman needs to go to a doctor or a health worker every month for a check-up. If not possible, the doctor's advice must be taken at least for four times during pregnancy.
- Pregnant women should avoid heavy work and take rest for two hours during day, and eight hours at night.

Lactation

- A woman after giving birth should undergo four post natal visits: the first one should be within 24 hours followed by weekly visits until the end of the month.
- In order to produce enough milk for her child, the lactating mother needs a lot of energy and nutrient rich foods for bone and blood building and healthy eyes. She should eat a lot of milk, curd, small bony fish, pulse, dark green leafy vegetables and yellow and orange vegetables.
- Adding nuts and seeds to the diet will increase nutrient and energy density of the diet.

Training aids required

- Multimedia, PowerPoint presentation, ,
- Flip Chart paper, marker pen, poster

Time: 1h Q&A & discussion

Time	Content	Method
10 min	<p>Introduction</p> <p>Welcome the participants</p> <p>Introduce trainer(s)</p> <p>Enquire participants' experience of subject in a general way – e.g. ask, 'Did you take additional food during pregnancy?' 'Which foods you took during pregnancy?'</p> <p>Explain why the training is important – motivate them!</p> <p>Distribute notebooks and pens</p>	<p>Talk</p> <p>Discussion</p> <p>Talk</p> <p>books & pens</p>

20
min

Nutrition needs during pregnancy and lactation

State: Well nourished mothers have healthy babies

Say: Girls and women need to eat well throughout their lives but particularly when they are planning a baby, are pregnant or breastfeeding. If they eat healthy, balanced diets they are likely to:

- Stay active and well;
- Produce healthy babies and breastfeed successfully.

Ask the participants what happens if a woman does not eat well during the pregnancy. Engage them in a discussion and prompt their answers as listed below. First discuss the consequences for a woman, then for her child.

Consequences for of being undernourished during the pregnancy:

- Anaemia
- Lethargy and weakness leading to lower productivity;
- Greater risk of death during giving birth;

Children of woman who were undernourished during pregnancy are more likely to suffer from:

- Low birth weight
- Poor growth
- Frequent infection
- Anaemia
- Delayed cognition;
- Increased risk of fetal, neonatal and infant death;
- Preterm birth;
- Birth defects;

State: If pregnant woman is undernourished, she is at risk of complications and difficult labor.

Say: Pregnancy and lactation increase a woman's food needs both in terms of quality and quantity of food. A woman's body has to nourish the growing child whose demand for energy and nutrition are very high. Therefore a woman needs to eat additional amounts of a variety of foods to improve the dietary quality and meet her nutritional needs.

Now engage the participants in discussion about foods which are particularly important in nutrition of pregnant and lactating women. Discuss each of the group of foods separately, one by one asking participants to give examples of foods and dishes containing them.

For healthy growth of child daily diet of a pregnant or lactating woman should contain:

Blood building

Organ meat: Liver, heart

Meat and fish

Dark green leafy vegetables: Red and green amaranth, jute leaves, bengal dayflower leaves, bitter gourd leaves, cowpea leaves, pumpkin leaves, Indian spinach

Fruits: Tamarind, hog plum, dates (molasses and jaggery) palmyra palm, pineapple, fig, emblic

Legumes and whole grains: Bengal gram, green gram, lentils, grass pea, rice bran, rice flakes, whole wheat flour

Spices and condiments: Cumin seeds, dried bay leaf, turmeric powder, fenugreek seeds, coriander seeds, black pepper

- ✓ All these foods should be eaten with sour foods such as lime or sour pickles made of olives, indian gooseberry (amloki), guava (peyara), star fruit (kamranga), etc.

Protecting eyes, promoting growth and immunity

Dark green leafy vegetables: Drumstick leaves, red and green amaranth leaves, fenugreek leaves, colocasia leaves, spinach, sweet potato leaves, jute leaves, Indian spinach, radish leaves

Yellow and orange vegetables: Carrot, sweet pumpkin, orange flesh sweet potato

Yellow fruits: Monkey jack, ripe mango, palmyra palm, melon, jambolan, ripe papaya, water melon

Small fish such as mola, dela, darkina eaten whole with head

Animal source foods: Ghee, butter, cheese, milk and eggs

Organ meat: Liver

- ✓ All these food should be eaten with oil or other source of fat

Bone building foods:

Milk and milk products: cottage cheese, milk, curd

Bony fish: puti, tengra, chapila, chenda, darkina, taki, chella

Leafy vegetables: amaranth leaves, drumstick leaves, fenugreek leaves, colocasia leaves, cowpea leaves, beet greens leaves, radish leaves, Indian spinach leaves, bitter gourd leaves

Nuts and seeds: sesame seed, mustard seed, linseed, pistachio nut

Pulses: soybean, Bengal gram, black gram, green gram

Spices, condiments and herbs: poppy seeds, fennel seeds, cumin seeds, coriander seeds, cloves

Foods promoting healthy growth and cognitive development:

- Fish, shrimp and other sea food
- Iodized salt

All members of the family such as the husband, parents, parents-in-law, and others should ensure that the pregnant or lactating mother gets an adequate quantity of a variety of foods and takes sufficient rest.

Say: Now we will talk about different foods and their combinations which will help us to get all the benefits of bone and blood building foods.

Discuss with the participants points below. Ask them if they have been already practicing these combinations and ask them to give examples of foods or meals which contain them.

In order to increase the intake of foods for healthy bones and growth:

- Put a teaspoon of lemon juice while kneading wheat flour (atta) dough for making rotis.
- Soak bones or egg shells in lemon juice for a few hours and then use the liquid in soup or other food.
- Use some milk or curd daily.
- Use small fish with bones in the diet.

- Combine dark green leafy vegetables with sour fruits like lemon, boroi, coriander or sour pickles.

In order to improve availability of nutrients from vegetable sources that help blood building

- Add sour foods like lime juice, berries, amra, coriander, green chillies to preparations such as dal and other mixed dishes.

Prepare pickles of olives, star fruits, keura and other sour fruits when is the peak season and add it to your meals throughout the year.

- Do not drink tea, coffee or chew pan before, during or 3 hours after the meal

Nutrition and care during pregnancy

Say: now we will discuss special needs for care and good nutrition of pregnant women.

Say: Pregnant and lactating woman should eat the same foods as the rest of the household members, but she should eat more than normally.

Explain to the participants that a pregnant woman needs a special care due to the effort that her body has to make to produce a new life. Discuss with them all the points below. Ask participants if they have been practicing them and ask if they will practice them in the future.

Each pregnant woman should:

- Take **one extra meal** during the day and **one extra helping** of family food during each meal.
- Drink plenty of water.
- Take plenty of meat, fish, milk and its products, dark green leafy vegetables, pulse, molasses, nuts and seeds to nourish the child in her womb.
- Use iodized salt. Women who lack iodine are at greater risk of having a baby who is physically challenged and have problems to learn and remember things.
- Avoid heavy work and rest for two hours during day and eight hours at night.
- Take iron/folic acid tablet every day from the moment of recognizing the pregnancy to the third month after giving birth.

No food items are restricted during pregnancy.

Antenatal care

State: A pregnant women should undergo a health check up by a trained health worker every month or at least 4 times during each pregnancy to detect any problems and ensure safe delivery and healthy new born

Nutrition and care during lactation:

Say: Breastfeeding increases women's nutritional requirements and micronutrient needs.

Nutritional requirements are greater during lactation than during pregnancy. A woman who is well nourished during pregnancy will have adequate fat reserves to compensate partially for these additional requirements during lactation. Breastfeeding women need much more energy and micronutrients (i.e. the equivalent of an extra meal each day). A breastfeeding woman must continue to eat a well-balanced diet to meet the enhanced nutritional requirements of lactation. Besides, intake of fluids should increase as fluids are essential for adequate milk production.

Therefore, consumption of fluid in any form such as soup, buttermilk, milk or milk based

	<p>beverages and clean plain water should be encouraged.</p> <p><i>Explain to the participants that a pregnant woman needs a special care due to the effort that her body has to make to produce milk for her baby. Discuss with them all the points below. Ask participants if they have been practicing them and ask if they will practice them in the future.</i></p> <p>All lactating women should:</p> <ul style="list-style-type: none"> ▪ Take two extra meals during the day and one extra helping of family food during each meal. ▪ Drink plenty of water ▪ During lactation a woman’s nutritional needs are very high, even higher than a well-built hardworking man. A nursing mother often feels hungry and must eat frequent meals in a day to meet the additional nutritional demands of the growing infant. ▪ Vegetables like dark green leafy vegetables, and yellow orange vegetable and fruits and other foods which are good for eyes health like milk with cream, ghee etc. ▪ Milk, curds, paneer, sesame, DGLVs particularly drumstick leaves (sajnapatta), beans, shell fish and small fish should be taken to help building healthy bones of the child. <p>No food items are restricted during breastfeeding.</p> <p>Postnatal Care</p> <p>A woman who gave birth should undergo four post natal visits: the first one should be within 24hours from the delivery and the last one within 1 month.</p> <ul style="list-style-type: none"> • Both mothers and their new born children are vulnerable during the postnatal period, especially during the first 24 hours following birth. <p>Post natal care for all new born should include:</p> <ul style="list-style-type: none"> • Monitoring and referral for complications such as excessive bleeding, pain and infection, counselling on breast care and breastfeeding, new born care practices, and family planning. 	
10 min	<p>Close the Session</p> <p>Ask if they have any questions.</p> <p>Summarize the session with special emphasis on key messages</p>	Talk and Q/A

SESSION 4
INFANT AND YOUNG CHILD FEEDING

Objectives:

At the end of the session participants will be able:

- To state the advantages of exclusive breastfeeding (for mother and child)
- To understand the correct breastfeeding position & attachment
- To understand the recommended breastfeeding practices
- To define the term complementary feeding
- To understand the recommended and optimal complementary feeding practices
- To learn how to prepare egg suji as a complementary food example

Key Messages:

Exclusive breastfeeding means giving a baby only breast milk, and no other liquids or solids, not even water for the first six months of life.

In order to maintain normal growth rates, at six months of age breast feeding must be complemented by appropriate, nutritious complementary foods.

After 6 months as a baby grows and becomes more active, additional foods from the nutritional stand point are required to "FILL THE GAP" between the total nutritional needs and the amounts provided by breast milk.

Breastfeeding should be continued along with complementary feeding until the 2nd year of child's life

Never give to your child sweets, cookies or any other snacks from the shops

Babies have small stomachs and can only eat small amounts at each meal so it important to feed them frequently throughout the day

Always use iodized salt when preparing complementary food

Children need to eat a lot of blood building and eye protective foods to grow strong and have healthy eyes

Animal source foods are very important and can be given to babies and young children when cooked well and chopped fine.

Hygienic preparation and serving of complementary food is crucial for the child's health

Before feeding your child, wash your hands and child's hands with soap and water

Training aids required:

Poster paper, Flip chart, marker pen, etc.

Time required: 30 minutes theory and 90 minutes Q&A & discussion

Time	Content	Method
10 min	<p>Introduction</p> <p>Ask: Do you think breast feeding is beneficial for child health? Note their response on the Flip chart</p> <p>Ask: Do you think complementary food is essential for child growth? Let participants answer in their way.</p>	Q & A, Talk Show picture
10 min	<p>Breastfeeding</p> <p>State:Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants. As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health.</p> <p>Exclusive Breastfeeding</p> <p>Ask: What is exclusive breast feeding? <i>Collect the answers and ideas. Prompt the right answer.</i></p> <p>State: Exclusive breastfeeding means giving a baby only breast milk, and no other liquids or solids, not even water for the first six months of life.</p> <p>Ask: Why is breastfeeding important for our children? <i>Prompt answers as per bullets below. Discuss each of the points with the participant and make sure they understand them.</i></p> <p>Importance of Breastfeeding for the Infant/Young Child:</p> <ul style="list-style-type: none"> • Saves infants’ lives • Promotes adequate growth and development • Is always clean • Is always ready and at the right temperature • Contains enough water for the baby’s needs • Is the perfect food for the infant, contains balanced proportions and sufficient quantity of all the needed nutrients for the first 6 months. • Contains antibodies that protect against allergies and diseases, especially against diarrhoea and respiratory infections • Frequent skin-to -skin contact between mother and infant leads to better development of the infant both mentally and physically • Promotes brain development • Colostrum, the first milk mother has after giving birth is very important for the infant, it protects him/her from diseases <p>Ask: Why is breastfeeding important for the mother? <i>Prompt answers as per bullets below. Discuss each of the points with the participant and make sure they understand them.</i></p> <p>Importance of Breastfeeding for the Mother</p> <ul style="list-style-type: none"> • Reduces risks of bleeding after delivery • Putting the baby to the breast immediately after birth facilitates the expulsion of placenta because the baby’s suckling stimulates uterine contractions • It facilitates the contraction of uterus bringing it back to its original size. 	

	<ul style="list-style-type: none"> • When the baby is immediately breastfed after birth, breast milk production is stimulated • Immediate and frequent suckling prevents engorgement of breasts • Breastfeeding is an effective contraceptive method during the first 6 months provided that breastfeeding is exclusive and amenorrhea persists • Reduces the mother's work load (no time preparing milk, gathering fuel) • Breast milk is available at anytime and anywhere, is always clean, nutritious and at the right temperature • Stimulates bond between mother and baby 	
10 min	<p>Complementary foods</p> <p>Ask: What is complementary food</p> <p><i>Collect the answers from the participants. Prompt the right answers. Make sure everyone understood.</i></p> <p>Say: Complementary feeding means giving other foods in addition to breast milk. Complementary feeding should begin at six months of age, when breast milk alone is no longer sufficient to meet the nutritional requirements of infants, and when other foods and liquids are needed. These other foods are called complementary foods. Some examples of good complementary foods include egg suji, khichuri, fruit payesh etc.</p> <p>State: In order to maintain normal growth rates, at six months of age breast feeding must be complemented by appropriate, nutritious complementary foods.</p> <p>Ask: Why are complementary foods important?</p> <p><i>Prompt answers from the participants.</i></p> <p>Say:The period from birth to two years of age is a "critical window" for the promotion of optimal growth, health and development. Poor breastfeeding and complementary feeding practices, coupled with high rates of infectious diseases, are the principal causes of malnutrition during the first two years of life. It is essential to provide children with adequate amounts of diverse foods to promote proper growth and development of their full potential and future capacities.</p> <p>State: After 6 months as a baby grows and becomes more active, additional foods from the nutritional stand point are required to "FILL THE GAP"between the total nutritional needs and the amounts provided by breast milk.</p> <p>Ask: Why is it important to continue breastfeeding along with complementary feeding?</p> <p><i>Prompt the answers as per the bullets below. Discuss them with the participants and make sure they understand.</i></p> <p>Say: Besides nutrition, breastfeeding continues to:</p> <ul style="list-style-type: none"> ✓ provide protection to the child against many illnesses, ✓ provide closeness, comfort, and contact that helps development. <p>State: Breastfeeding should be continued along with complementary feeding until the 2nd year of child's life</p>	
5 min	<p>First Complementary foods</p> <p>Ask: How should the first complementary food for a 6 months old child look like? How</p>	

should we prepare it?

Prompt the answers as per the bullets below. Discuss each point with the participants. Make sure they understand each of them

Complementary foods should be:

- ✓ Diversified: rich in energy, protein, fat and micronutrients
- ✓ Clean and safe: no harmful chemicals or toxins
- ✓ Easy for the child to eat: no bones or hard bits that may choke a child
- ✓ Not spicy or salty
- ✓ Not sweet
- ✓ Liked by the child
- ✓ Locally available and affordable
- ✓ Easy to prepare

Ask: How to initiate complementary feeding?

Collect the answers and ideas. Ask the participants about their experience. Discuss each of the points below and make sure they understand it.

When your child starts its 6th month of life start giving small amounts of food to introduce new tastes:

- Start with the staple cereal to make porridge (e.g. rice, chira, semolina (suji), wheat, potatoes)
- Initially give 2 to 3 tablespoons as “tastes” and gradually increase amount
- Introduce new foods in a mashed form: boiled rice, hardboiled egg, fruits
- Be patient and actively encourage your baby to eat more food
- If your child refuses to eat, encourage him/her repeatedly
- Offer new foods several times, children may not like (or accept) new foods in the first few tries
- Feeding times are periods of learning and love. Interact and minimize distraction during feeding
- Do not force feed
- Continue frequent breastfeeding

State: Never give children snacks and sweets from shops (e.g. fried foods, candies, cookies)

Complementary feeding schedule and introducing of new foods

State: Babies have small stomachs and can only eat small amounts at each meal so it is important to feed them frequently throughout the day.

Ask: How many times should we feed our children?

Collect the answers.

State: Children should be fed according to their age:

2-3 times per day at 6 to 8 months of age (1/2 bati each meal)

3-4 times per day at 9 to 11 months of age (1/2 bati each meal)

3-4 times per day at 12 to 23 months of age (3/4 bati each meal)

Additional nutritious snacks (such as piece of fruit or bread or chapatti with nut paste)

10 min	<p>(According to WHO guideline principles for the average healthy breastfed infant)</p> <p><i>Repeat age appropriate requirements for food which are described above and make sure all the participants understand and remember them.</i></p> <p>State: Always use iodized salt when preparing complementary food</p> <p>Key foods in complementary feeding: Ask: What are the key foods in complementary feeding?</p> <p><i>Collect the answers from the participants. Encourage them to use their knowledge from the previous sessions to guess which foods are particularly important.</i></p>	
10min	<p>Say: Infants and young children have high nutrient needs but very small stomachs. Therefore complementary food should be nutrient dense: It should contain all the required nutrients in a small amount of food. This means that apart from staple foods which give energy child has to get a variety of foods from the body building and protective food groups.</p> <p><i>Tell to the participants which are the key foods which should be included in the children's diet to ensure that they get good nutrition. Discuss with them the foods as per the list below. Encourage them to give examples of foods and dishes from each group.</i></p> <p>The key groups of food which have to be included in the complementary feeding are:</p> <ul style="list-style-type: none"> Animal-source foods: meat, chicken, fish, liver; and eggs and milk, and milk products Staples: grains, roots, tubers Legumes: beans, lentils, peas; and seeds Vegetables and fruits: especially blood building and eye protective vegetables - dark-green leaves, carrots, pumpkins, and fruits - papaya, mango, tamarind, hog plum <p>State: Children need to eat a lot of blood building and eye protective foods to grow strong and have healthy eyes</p> <p><i>Remind to the participants which are the blood building and eye protective foods as per instructions below. Encourage them to actively give examples of foods from these groups.</i></p> <p>Best sources of blood building foods:</p> <ul style="list-style-type: none"> Organ meat: Liver, heart Meat and fish Dark green leafy vegetables: Red and green amaranth, jute leaves, bengal dayflower leaves, bitter gourd leaves, cowpea leaves, pumpkin leaves, Indian spinach Fruits: Tamarind, hog plum, dates (molasses and jaggery) palmyra palm, pineapple, fig, emblic Legumes and whole grains: Bengal gram, green gram, lentils, grass pea, rice bran, rice flakes, whole wheat flour Spices and condiments: Cumin seeds, dried bay leaf, turmeric powder, fenugreek seeds, coriander seeds, black pepper 	

<p>10 min</p>	<p>✓ All these foods should be eaten with sour foods such as lime or sour pickles made of olives, indian gooseberry (amloki), guava (peyara), star fruit (kamranga), etc.</p> <p>Best sources of eye protective nutrients</p> <p>Dark green leafy vegetables: Drumstick leaves, red and green amaranth leaves, fenugreek leaves, colocasia leaves, spinach, sweet potato leaves, jute leaves, Indian spinach, radish leaves</p> <p>Yellow and orange vegetables: Carrot, sweet pumpkin, orange flesh sweet potato</p> <p>Yellow fruits: Monkey jack, ripe mango, palmyra palm, melon, jambolan, ripe papaya, water melon</p> <p>Small fish such as mola, dela, darkina eaten whole with head</p> <p>Animal source foods: Ghee, butter, cheese, milk and eggs</p> <p>Organ meat: Liver</p> <p>✓ All these food should be eaten with oil or other source of fat</p> <p>State: Animal source foods are very important and can be given to babies and young children when cooked well and chopped fine.</p> <p><i>Examples of complementary food will be given during the practical part of the session.</i></p> <p>Hygiene in preparation of complementary food</p> <p>State: Hygienic preparation and serving of complementary food is crucial for the child's health</p> <p>Say: Complementary food which was stored or prepared in unhygienic conditions or served with dirty hands can cause food poisoning or diarrhea.</p> <p>Ask: How to make sure the food we prepare for our children is safe?</p> <p><i>Prompt the answers as per points below. Discuss each of the points separately and make sure all the participants understand them.</i></p> <p>The principles of preparing safe complementary food:</p> <ul style="list-style-type: none"> ✓ Use only clean water from safe sources ✓ Wash your hands with soap and water before preparing food ✓ Use clean utensils ✓ Keep the cooking and preparation area clean <p>Ask: How to make sure that we feed our child in a safe way?</p> <p><i>Prompt the answers as per points below. Discuss each of the points separately and make sure all the participants understand them.</i></p> <p>The principles of feeding your child safely</p> <ul style="list-style-type: none"> ✓ Wash your hands with soap before feeding young child ✓ Feed your children using clean cups, bowls and spoon ✓ Never use a bottle as this is difficult to clean and may cause your baby to get 	
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	<p>diarrhoea</p> <p><i>Discuss the points below with the participants to make sure they understand that even safe food can get spoiled or contaminated during storing.</i></p> <p>Avoid storing complementary foods between meals:</p> <ul style="list-style-type: none">✓ Feed the child immediately upon preparation; avoid storing cooked food✓ If the complementary food has been kept for over two hours, it is advisable to boil before feeding it to the child <p>State: Before feeding your child, wash your hands and child's hands with soap and water</p> <p>Close the session:</p>	
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TRAINER'S MANNUAL

Learning objectives:

- To understand why hygiene is important to prevent diseases
- To understand what are the critical points when washing hands and why it is important
- To learn the 6 steps of effective hand washing
- To learn how to install a tippy-tap: a handy and cheap solution for hand washing
- To understand most important points for keeping the household and its surroundings clean and hygienic
- To understand the principles of hygienic food preparation
- To understand the principles of hygienic food and water storage

Hygiene and Diseases

Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases. It therefore includes a set of practices associated with the preservation of health, for example hand washing, environmental cleaning, water and sanitation and safe disposal of household waste.

Lack of good hygiene causes diseases and illnesses

What makes us sick?

Germs and dirt

Germs are small organisms which grow on dirt, especially if the dirt contains food leftovers, animal or human feces. Germs grow also on human body, especially in the nose, mouth, nails and on animals. Whenever we touch something we leave our germs on it and germs from its surface stay on our hands.

A clean house and living area is required to reduce number of germs and let us be healthy.

What happens when germs get into our food?

Germs make us sick because they get into our food and we eat them.

When we eat food that has germs we can get food poisoning: we get stomach ache, have fever, feel weak, lose appetite and often we get diarrhea and we vomit.

When we get diarrhea and vomiting: we lose nutrients, body salts and water and we cannot eat.

- **Children become undernourished and they stop growing**
- **Adults are tired and cannot work**
- **Children can't go to school and learn**
- **Small children require more attention, cannot sleep and often cry**

More than half of all illnesses and deaths among young children are caused by germs that get into their mouth through food, water or dirty hands. These illnesses, especially diarrhea, can be prevented by good hygiene practices.

Most common sources of food contamination by germs causing food poisoning:

- *Fingers of a person who prepares food* – **CAN BE PREVENTED BY HAND WASHING**
- *The toilet, and dirty hands*
- *Livestock and livestock faces* } **CAN BE PREVENTED BY KEEPING HOUSEHOLD CLEAN**
- *Poultry meat and eggs*
- *Other meat*
- *The soil on vegetables* } **CAN BE PREVENTED BY SAFE FOOD HANDLING**
- *Food which was stored in room temperature between meals* } **CAN BE PREVENTED BY PROPER STORAGE AND REHEATING FOOD**
- *Water* - **CAN BE PREVENTED BY USING WATER FROM SAFE SOURCES**

Good hygiene protects you and your family against diseases

Hand washing

Dirty hands are the most common source of food contamination. Washing hands before cooking and eating and after the critical activities will eradicate the frequency of suffering from food poisoning by all family members.

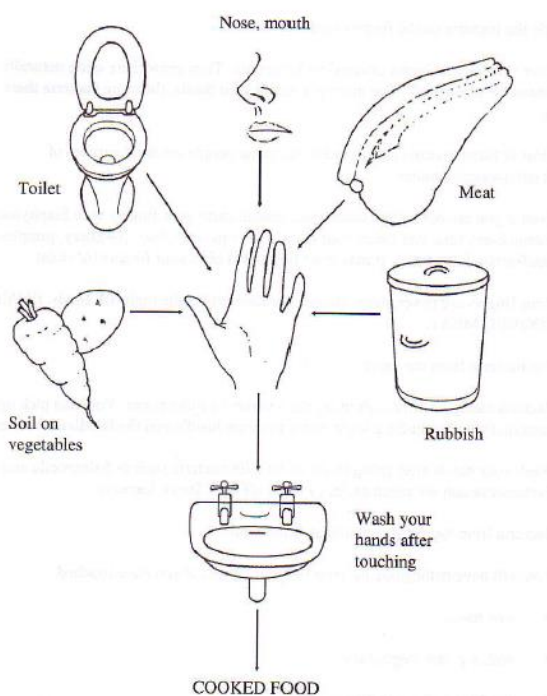


Wash hands with clean water and soap or ash especially after:

- *Going to the toilet or cleaning a baby's bottom;*
- *Washing dirty bed linen or surfaces contaminated with feces;*
- *Handling animals;*
- *Before and after preparing food and eating;*
- *Before feeding a child or sick person.*

Pic. 22: washing hands with soap and water

Keep soap and water at three critical places (cooking area, feeding and eating area and latrines)



Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module 3

Sources of dirt and bacteria on our hands

6 steps of hand washing

Washing hands with soap should last for minimum 20 seconds

Hand washing comprises of six steps which are as follows:

7. scrub palms,
8. back of hands,
9. between fingers,
10. finger tips,
11. thumbs and
12. wrists and fingernails



Pic. 2: Six steps of hand washing

Once hands are scrubbed thoroughly, rinse both sides of hand with water and wipe hands with a clean and dry towel.

Keep your nails always short, germs grow under nails where dirt accumulates and it is hard to wash them out from there.

Making a tippy tap:

Installing a tippy tap is a simple and cheap way of ensuring that you can easily wash hands in critical places: **near the latrine, eating area, food preparation area and poultry and livestock sheds.**

To build a tippy tap we need:



- A clean plastic bottle*
- A rope or string*
- A small knife or a nail*
- A candle*
- Matches*
- A soap*
- If possible a net bag*

Pict. Equipment needed to build a tippy tap

Source: SPRING promotion materials – How to Build Your own Tippy Tap

The procedure:

6. Heat up the knife or nail over the candle and use it to make a hole in the side plastic bottle, low and close to its bottom.
7. Fill the bottle with water and close the cap tight and tie the bottle to the pole with strings. Place tippy taps near to the critical areas: Latrine, food preparation and eating areas.
8. Hang soap in a net next to each bottle.
9. Open the cap slightly and the water will come out through the hole.
10. Wash your hands with water and soap



Pict.A tippy tap installed on a tree

Source: SPRING promotion materials – How to Build Your own Tippy Tap



Pict.A girl using a tippy tap

Source: SPRING promotion materials – How to Build Your own Tippy Tap

Household Hygiene:

In the homestead area the main sources of germs which can cause diseases are:

- Homestead waste
- Human feces
- Animal feces
- Domestic animals

Remove household waste and dirty water from the homestead area:

- *Always dispose of rubbish in a pit and cover it.*
- *Do not let rubbish build up – it can be a source of cross-contamination*
- *Household waste water can be disposed off safely by making a soak pit or a channel to the field or an area outside the house.*

Remove human and animal faeces from the homestead area

- Clean up animal faeces lying around to protect children from coming in contact with them
- *If it is not possible to use a toilet or latrine, everyone should always defecate well away from residential areas, houses, paths, water sources and children's playing area. The faeces should be buried immediately.*
- *In case of dirtying clothes with faeces wash them and rinse with clean water and then keep in boiling water for 5 minutes.*

Keep livestock away from home and ensure clean and hygienic sheds

- *Make sure livestock sheds are well ventilated*
- Clean livestock sheds and remove waste regularly
- Wash your hands thoroughly after touching animals or working around the sheds

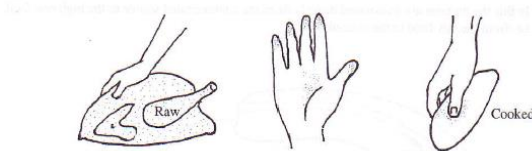
Handle your foods safely

Separate raw meat, poultry, eggs and seafood from other foods



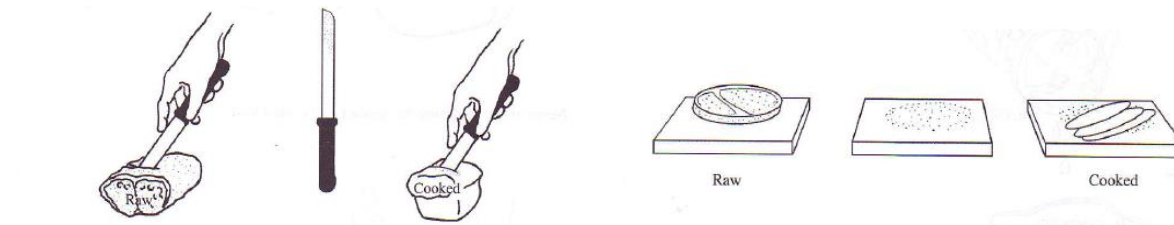
Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module

Never let raw meat touch or drip into cooked meat



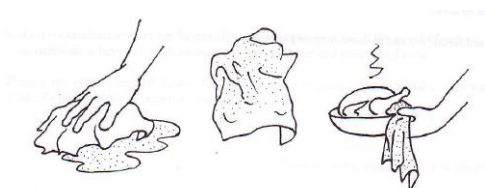
Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module 3

Wash your hands before touching cooked food



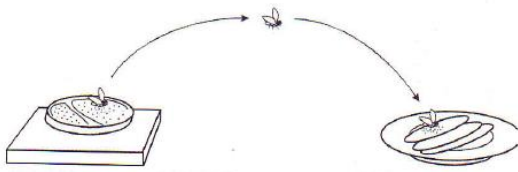
Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module 3

Wash kitchen equipment and surfaces after using them for raw meat and before using them for cooked food



Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module 3

Dirty clothes are source of germs



Source: Advanced Food Safety Ltd. Intermediate Food Safety (New Level 3) Distance learning Course. Module 3

Protect food from flies and pests to avoid contamination with germs from other places

Any person who is sick or is still recovering from a recent sickness should not be involved in food preparation. This is to avoid food contamination from the sick person.

Poultry meat should be always well cooked.

- Poultry is a key source of germs responsible for food poisoning if it is not handled or cooked properly. Poultry meat contains germs both on its surface and inside body.

How to recognize that chicken meat is sufficiently cooked?

Stick a knife into the thickest part of the meat that is being cooked down to the bone (base of the chicken leg is the part with the thickest meat layer). If the juices that come out are tinged pink with blood, the chicken needs more cooking. When the chicken is cooked the juices should be quite clear and the meat should come out of the bones easily.

Sick, dying or dead animals should NOT be consumed; do not eat meat which contain lumps, does not look normal or has an unusual smell.

Don't slaughter birds which appear sick

Store foods safely

Food can easily get contaminated with germs during storage. It is important to store it safe to avoid contamination which can cause a food poisoning.

Cover foods with lids or a clean cloth to protect them from insects, pests and dust.

Keep dry foods such as flours and legumes in a dry, cool place where they are protected from insects, rats and mice, and other pests.

Reheat all cooked foods in a high temperature (boiling) just before serving

Use only safe water

- Use clean and safe water (**boiling, filtration and decantation**)
- *Use safe water, such as treated pipe water, green tube well (arsenic free) or water from a protected source, such as a borehole or protected well (bathing and washing does not take place and the water is not contaminated).*

- Water from unsafe sources such as ponds, rivers, open tanks and step-wells can be made safer by boiling rapidly for ten minutes.
- *Use clean and covered containers to collect and store water.*
- *Never put food or water in empty containers that have been used for chemicals/pesticides.*
- *Don't touch clean water with unclean hands, use only clean cups to take water from the container.*
- *Keep animals away from drinking water sources and the household area.*



Pict. 11: Methods of storing water

Learning objectives:

- **To understand the basic terms in food and nutrition**
- **To learn what are the basic food groups and their functions in the body**
- **To understand the principles of a balanced diet**
- **To understand the importance of combining foods from different groups and learn combinations which are particularly beneficial for us**
- **To learn in practice how to prepare a varied meal**

What is food and nutrition

Why do individuals need to eat healthy foods?

Consumption of healthy foods leads to a healthy, active and economically productive life. Eating a variety of foods can provide sufficient energy to be active; help in body grow and repair the injured and strengthen the immune system against diseases.

Food and Nutrients

What is Food, Nutrient and Nutrition?

Food All what we eat. It does not include drugs. Food is needed to perform various functions in the body and keep it healthy. The foods that we eat daily like rice, fish, pulses, vegetables and fruits are made up of a number of chemical components called nutrients.

Nutrient: Substances which are part of each food and are used by the human organism for growth and development, maintaining its metabolism and proper functioning.

Nutrition: It is how our organism uses foods that we eat. Knowledge about nutrition helps us to know the kinds and amount of foods we need to eat to have healthy and productive life.

There are many different nutrients. We divide them into:

- **Macronutrients** that we need in large amounts to have strength and energy to work:
 - **Carbohydrates** (in rice, tubers, wheat)
 - **Fats** (in oils, oilseeds, ghee)
 - **Proteins** (in meat, fish, egg, milk, pulses)

- **Micronutrients** that we need in small amounts (measured in milligrams or micrograms). There are many of these and they come from all sorts of different foods but the ones most likely to be lacking in the diet are:
 - Minerals:**
 - Iron: builds blood;
 - Iodine: supports brain development of children and healthy, active life of adults;
 - Zinc: supports growth and immune system;
 - Calcium: builds healthy bones.
 - Vitamins:**
 - Vitamin A: important for our sight;
 - Folic acid: helps to build blood and for a pregnant or lactating mother is necessary for health of her child
 - Vitamin C: supports our immune system.

No single food provides all of the nutrients needed for health and strength of our body. We need to consume a wide variety of different foods every day.

The three different food groups that contribute to a balanced diet

1. Energy giving foods

Energy foods give energy to work and help children to grow. This group includes foods rich in energy like cereals, roots and tubers, sugar, oils, butter and ghee.

Table 4: Local energy giving foods

Cereals	Roots and Tubers	Fats/Sugar
Rice (Chal)	Potato (Alu)	Ghee (Ghee)
Maize / Corn (Vutta)	Sweet Potato (Mistialu)	Butter (Makhon)
Wheat (Gama)	Beetroot (Beet)	Oil (Tel)
Barley (Jab)	Turnip (Shalgam)	Sugar (Chini)
Rice Flakes (Chira)	Yam(Mateyalu)	Jaggery (Gur)
Semolina (Suji)		Coconut (Narikal)

2. Body building foods

This group includes foods which build our body and give us strength, help children to grow. These foods are also important for blood building to avoid anaemia and for bone building.

Table 5: Local body building foods

Pulses/Legumes	Nuts and oilseeds	Milk and Products	Flesh foods
Lathyrus (Khesari)	Groundnut (Badam)	Milk (any)	Chicken (Murgi)
Chick pea (But)	Sesame (Til)	Curd (Dahi/Doi)	Meat (Mangso)
Green gram (Moong)	Pumpkin seed	Cheese (Paneer)	Fish (Mas)
Lentils (Massor)	(Mistikhumrabichi)	Buttermilk (Ghol)	Egg (Dim)
Black Gram(Mashkolai dal)			

3. Protective foods

Protective foods are important part of the diet because they protect us from infections by giving immunity. They also help maintain body functions like build blood and keep children's eyes healthy.

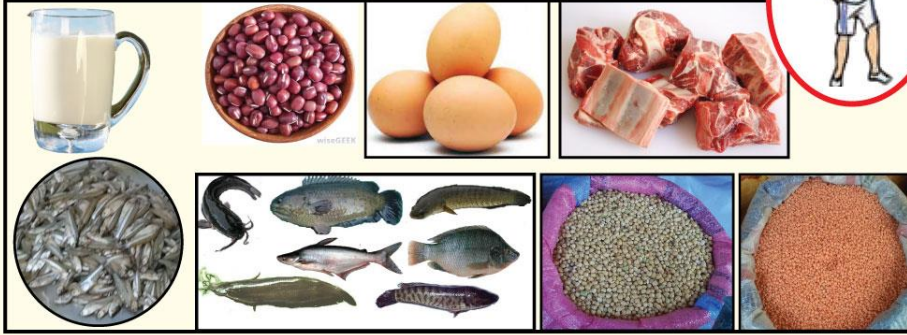
Table 6: Local protective foods

Vegetables	Fruits	Leafy Vegetables
Tomato (Tomato)	Mango (Aam)	Spinach (Palongshak)
Pumpkin (Misti kumra)	Papaya (Pape)	Red Amaranth (Lalshak)
Carrot (Gajar)	Pineapple (Anaras)	Colocasia leaves (Kochushak)
Okra (Derosh)	Dates (Khejur)	Mint (Pudina)
Bottle gourd (Lau)	Jackfruit (Kathal)	Sarisashak (Mustardl)
Ridge gourd (Jinga)	Sapota (Sofeda)	Amaranth leaves (Data shak)
Ash gourd (Jalikumra)	Wood apple (Bel)	Drumstick leaves (Shajnashak)
Snake gourd (Chichinga)	Hog Plum (Amra)	Indian Spinach (Puishak)
String bean (Barbati)	Aonla (Amloki)	Bottle gourd leaves (Lau shak)
Beans (Sheem)	Jambu (Jamrul)	Radish leaves (Mula shak)

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Balanced diet

To stay healthy, one should eat foods from each of the three food groups, and at least two different foods from each food group on a daily basis

A balanced diet provides the correct amounts of energy and nutrients needed during the day to cover the dietary requirements of the person eating it. A balanced diet must be composed of a variety of foods from different food groups so that it contains all the macronutrients and micronutrients that a person needs.

A healthy and balanced diet:

- Provides energy to work and learn;
- Is essential for pregnant and lactating mothers to have healthy children;
- is essential for children to grow;
- protects the body against illness (keep healthy).

A balanced diet can be prepared by a judicious combination of foods from the three food groups which include:

- Cereals, roots or tubers and
- Pulses, nuts or oilseeds
- Meat or fish, or other foods of animal origin (eggs or milk products)
- Dark Green Leafy Vegetables, Orange and Yellow Vegetables and fruits
- Oil, fat and coconut

Good meals

We should have 3 meals per day and 1 to 2 snacks per day.

Eating good food, especially with family, is one of the pleasures of life. People who eat healthy, balanced diets are likely to have:

- plenty of energy to work and enjoy themselves;
- adequate growth;
- fewer infections and other illnesses.

Children who eat well grow well. Women who eat well are likely to have healthy babies.

Food combinations

- Combine grains (rice), grams (pulses) and greens (vegetables) in proportions of 3:1:2
- Include even small amounts of meat or fish (30g) along with dark green leafy vegetables to improve dietary quality and help blood building components to be absorbed by the organism.
- Add sour items like lemon, tomato, tamarind, boroi, hog plum and spices like chilli and coriander to meat, fish or dark green leafy vegetable preparations to enhance the availability of nutrients in the meal
- Always add a little oil while preparing leafy vegetables and orange and yellow vegetables to enhance the absorption of nutrients that help vision and immunity

- Do not drink tea or coffee or chew pan just before or 3 hours after a meal as they interfere with absorption of nutrients from the meal.

Encourage families to use:

- A variety of foods and food groups at each meal;
- Vegetables and fruits, particularly dark green leafy vegetables and orange and yellow vegetables and fruits, at different meals because vegetables and fruits contain varying amounts of different micronutrients and protective substances;
- Meat, poultry, fish at least twice per week and peas, beans, chickpeas or lentils daily in combination with cereals to enhance the nutritional quality of the meal.
- Animal source foods are ideal for growth, blood building and development especially for children and pregnant and lactating mothers.
- Nuts and oil seeds which are a rich source of nutrients for growth and bone development of children and in pregnancy and lactating women

Learning objectives:

- **To state the advantages of exclusive breastfeeding for the first 6 months of life (for mother and child)**
- **To define the term complementary feeding**
- **To understand the recommended IYCF practices**
- **To understand the importance of complementary foods**
- **To learn how to prepare egg suji as a complementary food example**

Breastfeeding:

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

Exclusive Breastfeeding

Exclusive breastfeeding means giving a baby only breast milk, and no other liquids or solids, not even water for the first six months of life.

Importance of breast milk for the Infants and Young Children:

- *Saves infants' lives*
- *Promotes adequate growth and development*
- *Is always clean*
- *Is always ready and at the right temperature*
- *Contains enough water for the baby's needs*
- *Is the perfect food for the infant, contains balanced proportions and sufficient quantity of all the needed nutrients for the first 6 months.*
- *Contains antibodies that protect against allergies and diseases, especially against diarrhoea and respiratory infections*
- *Frequent skin-to-skin contact between mother and infant leads to better development of the infant both mentally and physically*
- *Promotes brain development*
- *Colostrum, the first milk mother has after giving birth, is very important for the infant, it protects him/her from diseases*

Importance of Breastfeeding for the Mother

Reduces risks of bleeding after delivery

Putting the baby to the breast immediately after birth facilitates the expulsion of placenta because the baby's suckling stimulates uterine contractions

Facilitates the contraction of uterus bringing it back to its original size

When the baby is immediately breastfed after birth, breast milk production is stimulated

Immediate and frequent suckling prevents engorgement of breasts

Breastfeeding is an effective contraceptive method during the first 6 months provided that breastfeeding is exclusive and woman does not menstruate

Reduces the mother's work load (no time preparing milk, gathering fuel)

Breast milk is available at anytime and anywhere, is always clean, nutritious and at the right temperature

Stimulates bond between mother and baby

Complementary feeding: Why are complementary foods important?

Definition of complementary feeding:

Complementary feeding means giving other foods in addition to breast milk. Complementary feeding should begin at six months of age, when breast milk alone is no longer sufficient to meet the nutritional requirements of infants, and when other foods and liquids are needed. These other foods are called complementary foods. Some examples of good complementary foods include egg suji, khichuri, fruit payesh etc.

In order to maintain normal growth rates, at six months of age breast feeding must be complemented by appropriate, nutritious complementary foods.

Why are complementary foods important?

The period from birth to two years of age is a “critical window” for the promotion of optimal growth, health and development. Poor breastfeeding and complementary feeding practices, coupled with high rates of infectious diseases, are the principal causes of malnutrition during the first two years of life. It is essential to provide children with adequate amounts of diverse foods to promote proper growth and development of their full potential and future capacities.

After 6 months as a baby grows and becomes more active, additional foods from the nutritional stand point are required to "FILL THE GAP" between the total nutritional needs and the amounts provided by breast milk.

From 6 up to 12 months breast milk continues to supply about half ($\frac{1}{2}$) the energy needs of a child; the other half of energy needs must be filled with complementary foods.

From 12 up to 24 months breast milk continues to supply about one third ($\frac{1}{3}$) the energy needs of a child; the missing energy needs must be filled with complementary foods.

Besides nutrition, breastfeeding continues to:

- *provide protection to the child against many illnesses,*
- *provide closeness, comfort, and contact that helps development.*

Breastfeeding should be continued along with complementary feeding until the 2nd year of child's life

First Complementary Foods and Feeding

Complementary foods should be:

Diversified: rich in energy, protein, fat and micronutrients
Clean and safe: no harmful chemicals or toxins
Easy for the child to eat: no bones or hard bits that may choke a child
Not spicy or salty
Not sweet
Liked by the child
Locally available and affordable
Easy to prepare

Complementary feeding should be guided by the following principles:

Timeliness: *it should be introduced when the child has completed 6 months (180 days) of life, when the need for energy and nutrients exceeds what can be provided through exclusive and frequent breastfeeding.*

Adequacy: *it should provide sufficient energy, protein and micronutrients from different types of foods in the right proportions. Complementary foods should contain diverse foods to meet a growing child's nutritional needs.*

Responsively fed: *it should be given according to the child's signals of appetite and satiety, and meal frequency and feeding method (actively encouraging the child, even during illness, to consume sufficient food using fingers, spoon or self-feeding) should be suitable for the age of the child.*

Safe and hygienic: *it should be clean and safe, hygienically prepared and stored, fed with clean hands using clean utensils and not with bottles and teats.*

How to initiate complementary feeding?

When your child starts its 6th month of life start giving small amounts of food to introduce new tastes:

Start with the staple cereal to make porridge (e.g. rice, chira, semolina (suji), wheat, potatoes)

Initially give 2 to 3 tablespoons as "tastes" and gradually increase amount

Introduce new foods in a mashed form: boiled rice, hardboiled egg, fruits

Be patient and actively encourage your baby to eat more food

If your child refuses to eat, encourage him/her repeatedly

Offer new foods several times, children may not like (or accept) new foods in the first few tries

Feeding times are periods of learning and love. Interact and minimize distraction during feeding

Do not force feed

Continue frequent breastfeeding

Never give to your child sweets, cookies or any other snacks from the shops

Complementary feeding schedule and introducing of new foods

Babies have small stomachs and can only eat small amounts at each meal so it important to feed them frequently throughout the day

Meals of complementary foods should be given:

2-3 times per day at 6 to 8 months of age.

3-4 times per day at 9 to 11 months of age.

3-4 times per day at 12 to 23 months of age.

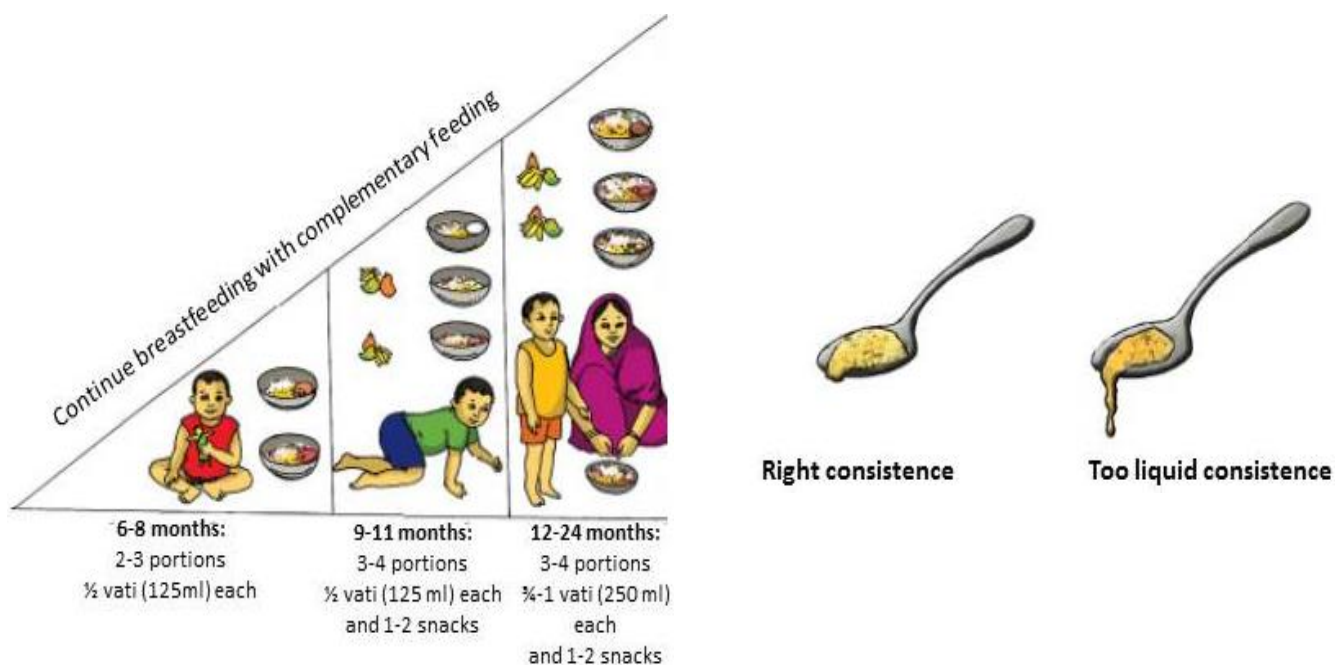
Additional nutritious snacks (such as piece of fruit or bread or chapatti with nut paste) should be offered 1 to 2 times per day as desired.

(According to WHO guiding principles, for the average healthy breastfed infant)

To minimize any interference with the normal pattern of breastfeeding:

*During the **first year** of life complementary foods should be given only **after** breastfeeding*

*During the **second year** of life complementary foods should be given only **before** breastfeeding*



Source: Adapted from NNS

Always

Pic. 13: Complementary feeding frequency and

use iodized

salt when preparing complementary food

Table 27 shows the frequency, quantity and type of complementary foods depending on the age of the child. Always adapt your counselling to what is available at household level.

Table 28: Complementary foods: frequency, quantity, texture and local examples

<i>Age</i>	<i>Frequen cy (per day)</i>	<i>Amount of food at each serving (in addition to breastmilk)</i>	<i>Texture (thickness/ consistency)</i>	<i>Local examples for counselling</i>
6-8 Months	2-3 times	2-3 tablespoons up to ½ vati (vati=250ml)	Thick porridge; mashed pureed	<ul style="list-style-type: none"> • Cooked Rice/Sabudana/Suji/Chira with Sugar/Molasses and Oil • Wheat flour/ Ground Rice/ Ground Millet/Corn or any other cereal porridge with addition of water + Molasses / Sugar +Oil • Mashed cooked rice and dal with addition of Molasses / Sugar + oil • Mashed soft banana/potato/papaya/pumpkin/mango • Mashed hardboiled egg yolk
9-11 Months	3 - 4 times	½ vati (vati=250ml) Depending on the child's appetite 1-2 snacks may be offered	Finely mashed/ chopped family food	<ul style="list-style-type: none"> • Roti or rice or tubers softened in dal, mashed correctly + sugar/Molasses +oil • Khichuri (Rice + Dal/whole pulses +Egg+ oil + other vegetables and leafy vegetables: carrot, peas, tomato, spinach, cauliflower leaves) • Whole pulses well mixed and mashed either with rice or roti +Oil • Whole egg (start with yolk, then introduce the white, well cooked) • Mashed soft banana/ripe papaya/ripe mango/boiled apple/guava/melons • Any Dal mashed with water with or without addition of oil/sugar/Molasses • Wheat flour/ Ground Rice/ Suji/ Chira or any other cereal porridge + water/milk + Sugar/ Jaggery +Oil <p>• + any of the options from the 6-8 Month</p>
12-23 Months	3- 4 times	¾-1vati (vati=250ml) Depending on the child's appetite 1-2 snacks may be offered	Family foods/ Sliced foods	<ul style="list-style-type: none"> • Powdered Groundnuts added to porridge/roti/rice with addition of Sugar/ Molasses • Minced fish/meat/chicken (well cooked and clean) • Rice cooked with meat/fish/chicken • Well cooked rice or roti + dal + vegetables • Mashed soft banana/ripe papaya/Ripe Mango/boiled apple/guava/melons <p>• + any options from 9-11 months</p>
If non breastfed child	Add extra times food and snacks			Add 1-2 cups of milk per day

Key foods in complementary feeding

Infants and young children have high nutrient needs but very small stomachs. Therefore complementary food should be nutrient dense: It should contain all the required nutrients in the small amount of food. This means that apart from staple foods which give energy child has to get a variety of foods from the body building and protective food groups.

The key groups of food which have to be included in the complementary feeding are:

Animal-source foods: *meat, chicken, fish, liver; and eggs and milk, and milk products*

Staples: *grains, roots, tubers*

Legumes: *beans, lentils, peas; and seeds*

Vegetables and fruits: *especially blood building and eye protective vegetables - dark-green leaves, carrots, pumpkins, and fruits - papaya, mango, tamarind, hog plum*

Children need to eat a lot of blood building and eye protective foods to grow strong and have healthy eyes

Best sources of blood building foods:

Animal foods, such as liver, lean meats and fish.

Plants like dark green leaves: amaranth and spinach and others

Some other foods such as beans, peas, lentils and other pulses

- ✓ *Eating sour foods together with/or soon after a meal, increases absorption of blood building nutrients.*
- ✓ *Drinking tea and coffee with a meal reduce the absorption of blood building nutrients.*

Best sources of eye protective nutrients

Orange and yellow vegetables and fruits such as carrots, pumpkins, yellow sweet potato, papaya and mangoes

Dark green leafy vegetables

Organ foods from animals: liver, heart etc.

Eggs, milk and foods made from milk such as butter, cheese and yoghurt and milk powder

- ✓ *Oil and fat such as oil seeds, margarine, ghee and butter added to vegetables and other foods will improve the absorption of some nutrients and provide extra energy.*
- ✓ *Always use iodized salt when preparing complementary food*

Animal source foods are very important and can be given to babies and young children when cooked well and chopped fine.

Examples of complementary food will be given during the practical part of the session.

Healthy snacks

Snacks are important part of child's diet: we should give 1 to 2 snacks every day between meals. It is important that snacks are: **Nutritious, clean and safe**

Examples of nutritious snacks:

Hardboiled egg

Pusti ghura

Banana

Pieces of ripe mango, papaya, water melon, pineapple or other fruits

Hog plums: remove pits and serve with a bit of salt and sugar

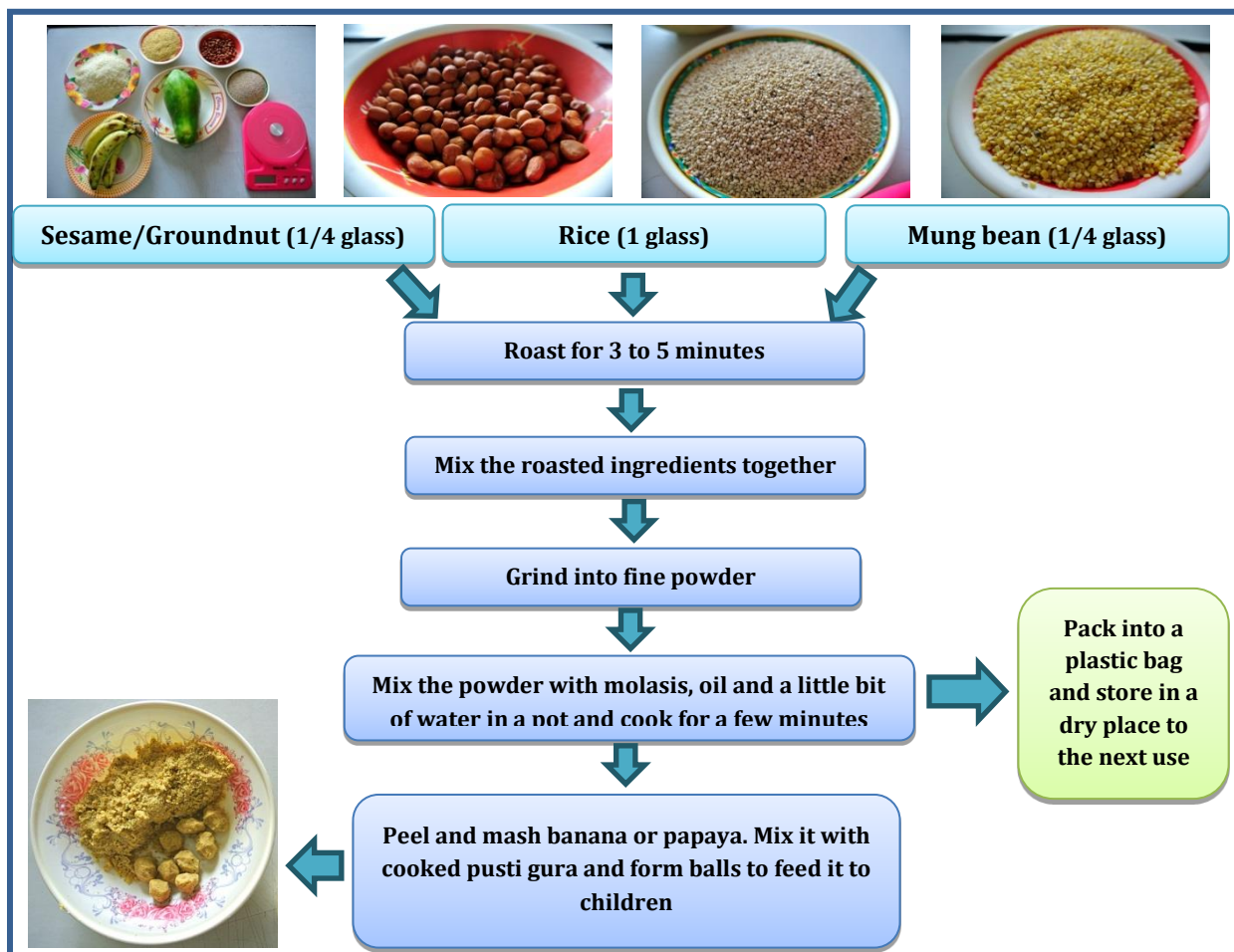
Boiled potato, orange flesh sweet potato, carrot and other vegetables

For older children pieces of fresh vegetables: carrot, cucumber, radish, kohlrabi, turnip

For older children handful of peanuts (badam) or other nuts

Never give to your child sweets, cookies or any other snacks from the shops

Steps to prepare pusti ghura:



Hygiene in preparation Complementary food:

Hygienic preparation and serving of complementary food is crucial for the child's health

Complementary food which was stored or prepared in unhygienic conditions or served with dirty hands can cause food poisoning or diarrhea

The principles of preparing safe complementary food:

Use only clean water from safe sources

Wash your hands with soap and water before preparing food

Use clean utensils

Keep the cooking and preparation area clean

The principles of feeding your child safely

Wash your hands with soap before feeding young child

Feed your children using clean cups, bowls and spoon

Never use a bottle as this is difficult to clean and may cause your baby to get diarrhoea

Avoid storing complementary foods between meals:

Feed the child immediately upon preparation; avoid storing cooked food

If the complementary food has been kept for over two hours, it is advisable to boil before feeding it to the child



Pic. 1: washing hands with soap and water

Before feeding your child, wash your hands and child's hands with soap and water

KEY MESSAGES

Health and Food Hygiene

Good hygiene protects you and your family from diseases

5. Be clean

Wash hands with clean water and soap repeatedly

- ✓ Wash your hands after going to the toilet or cleaning a baby's bottom
- ✓ Wash your hands after touching animals or cleaning their sheds
- ✓ Wash your hands before eating and feeding children



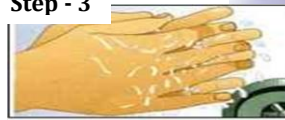
Step - 1



Step - 2



Step - 3



Step - 4



Step - 5



Step - 6



6. Keep your household and its surrounding clean

Keep your household clean and safe

- ✓ Arrange soap and water at cooking place, child feeding place and toilet
- ✓ Remove household waste and dirty water from the homestead area
- ✓ Remove human and animal feces from the homestead area
- ✓ Keep livestock away from the household and ensure clean and hygienic shed for domestic animals

7. Store foods safely

- ✓ Cover foods with lids, food cover or a clean cloth to protect them from insects, pests and dust
- ✓ If you have stored food between meals, reheat it to high temperatures (boiling) just before serving

8. Use only safe water

- ✓ For cooking and drinking use only safe water, such as green tube well or water from a protected source.
- ✓ Collect water in a clean container and store it covered.
- ✓ Don't touch clean water with unclean spoons, utensils or hands.
- ✓ Never put food or water in empty containers that have been used for chemicals/pesticides/detergents



Lack of good hygiene causes disease and illness

Basics on Food and Nutrition

Nutrition is a process of delivering to our body all the foods that it needs to be healthy and active. To ensure this we have to consume a balanced diet which contains all the food groups.

Basic food groups

Energy Giving Foods give energy and keep us active.

Examples of these foods are: rice, bread, other grains and cereals, roots and tubers, sugar, oil, coconut, ghee etc.

Body Building Foods are important for growth and building strength. Examples of these foods are: meat, fish, egg, milk, lentils, nut, oil seeds, etc.

Body Protecting Foods increase the immunity. Examples of these foods are: dark green leafy vegetables and yellow vegetables and fruits.

Balanced diet

To stay healthy, one should eat foods from each of the three food groups, and at least two different foods from each food group on a daily basis.

A balanced meal can be prepared by a combination of foods from the three food groups which include:

- A cereal, root or tuber and oil or coconut
- Pulses, nuts or oilseeds, meat or fish, or other foods of animal origin (eggs or milk products)
- Vegetables and fruits

Very important part of our nutrition is how we combine foods in a meal. Components of different foods can become more nutritious for our body if eaten together. Now we will discuss this kind of combinations.

- Include even small amounts of meat or fish along with dark green leafy vegetables to improve dietary quality and help blood building components to be absorbed by the organism.
- Add sour items like lemon, tomato, tamarind, boroi, hog plum and spices like chilli and coriander to meat, fish or dark green leafy vegetable preparations to enhance the availability of nutrients in the meal
- Always add a little oil while preparing leafy vegetables and orange and yellow vegetables to enhance the absorption of nutrients that help vision and immunity



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To stay healthy, one should eat foods from each of the three food groups, and at least two different foods from each food group on a daily basis.

MATERNAL NUTRITION

Pregnancy and lactation increase a woman's food needs both in terms of quality and quantity of food. A woman's body has to nourish the growing child whose demand for energy and nutrition are very high. Therefore a woman needs to eat additional amounts of a variety of foods to improve the dietary quality and meet her nutritional needs.

Pregnancy

Well nourished mothers have healthy babies

If a pregnant woman is undernourished, she is at risk of complications and difficult labor.

Pregnant and lactating woman should eat the same foods as the rest of the household members, but she should eat more than normally.

- In order to nourish the child in the womb a pregnant mother should take one extra meal a day and during each meal she should take more food than she used to before pregnancy.
- The pregnant mother should take iodized salt for the physical and mental development of the child in the womb.
- The pregnant mother should take iron folate tablets every day from recognizing the pregnancy to the third month after delivery.
- During pregnancy period a woman need to go to a doctor or a health worker every month for a check-up. If not possible, the doctor's advice must be taken at least for four times during pregnancy.
- Pregnant women should avoid heavy work and take rest for two hours during day, and eight hours at night.
- **No food items are restricted during pregnancy.**

Lactation

- Each lactating woman should take two extra meals during the day and one extra helping of family food during each meal.
- Drink plenty of water
- During lactation a woman's nutritional needs are very high, even higher than a well-built hardworking man. A nursing mother often feels hungry and must eat frequent meals in a day to meet the additional nutritional demands of the growing infant.
- Pnc meetings
- Adding nuts and seeds to the diet will increase nutrient and energy density of the diet.
- **No food items are restricted during breastfeeding.**

Daily diet of pregnant and lactating women should contain body building and protective foods to ensure growth of their children and to protect their own health:

Blood building and growth supporting foods:

Meat and fish

Organ meat: liver, heart etc.

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc.

Dates and their products especially jiggery and molasses

- ✓ *All these foods should be eaten with sour foods such as lime or sour pickels made of olives, indian gooseberry (amlaki), guava (peyara), star fruit (kamranga), etc.*

Eye protecting foods:

Organ meat: liver, heart etc.

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc.

Orange and yellow vegetables and fruits: carrots, pumpkins, yellow sweet potato, papaya, mangoes, etc.

- ✓ *All these food should be eaten with oil or other source of fat*

Bone building foods:

Small bony fish

Sesame and other nuts

Milk and its products (curd, yoghurt, ghee, crème)

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc

Brain building foods:

- *Fish, shrimp and other sea food*
- *Iodized salt*

All members of the family such as the husband, parents, parents-in-law, and others should ensure that the pregnant or lactating mother gets an adequate quantity of a variety of foods and takes sufficient rest.

INFANT AND YOUNG CHILD FEEDING

Exclusive breastfeeding means giving a baby only breast milk, and no other liquids or solids, not even water for the first six months of life.

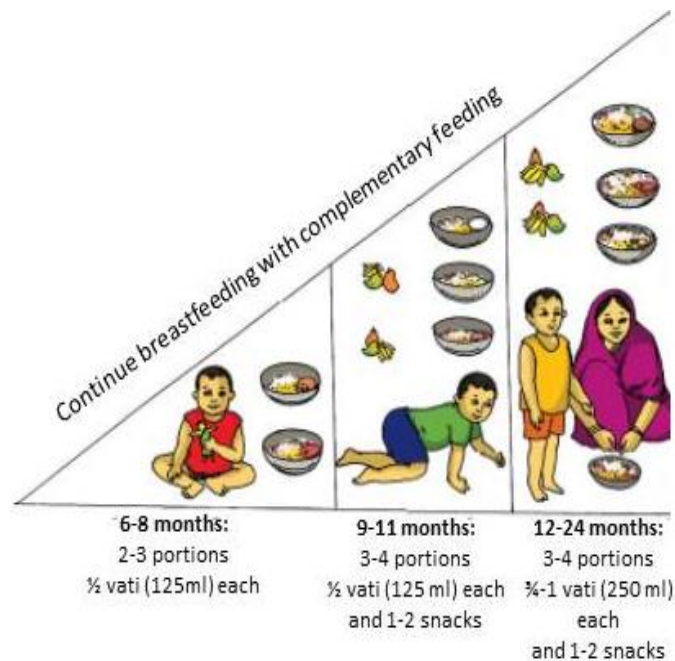
In order to maintain normal growth rates, at six months of age breast feeding must be complemented by appropriate, nutritious complementary foods.

State: Children should be fed according to their age:

2-3 times per day at 6 to 8 months of age (1/2 bati each meal)

3-4 times per day at 9 to 11 months of age (1/2 bati each meal)

3-4 times per day at 12 to 23 months of age (3/4 bati each meal)



After 6 months as a baby grows and becomes more active, additional foods are required to "FILL THE GAP" between the total nutritional needs and the amounts provided by breast milk.

Daily diet children should contain body building and protective foods to ensure their healthy growth:

Blood building and growth supporting foods:

Meat and fish

Organ meat: liver, heart etc.

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc.

Dates and their products especially jiggery and molasses

- ✓ *All these foods should be eaten with sour foods such as lime or sour pickels made of olives, indian gooseberry (amloki), guava (peyara), star fruit (kamranga), etc.*

Eye protecting foods:

Organ meat: liver, heart etc.

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc.

Orange and yellow vegetables and fruits: carrots, pumpkins, yellow sweet potato, papaya, mangoes, etc.

- ✓ *All these food should be eaten with oil or other source of fat*

Bone building foods:

Small bony fish

Sesame and other nuts

Milk and its products (curd, yoghurt, ghee, crème)

Dark green leafy vegetables: amaranth, spinach, Indian spinach, etc

Brain building foods:

- *Fish, shrimp and other sea food*
- *Iodized salt*

Animal source foods are very important and can be given to babies and young children when cooked well and chopped fine.

Breastfeeding should be continued along with complementary feeding until the 2nd year of child's life

Important messages which mother needs to remember:

- *Babies have small stomachs and can only eat small amounts at each meal so it important to feed them frequently throughout the day*
- *Hygienic preparation and serving of complementary food is crucial for the child's health*
- *Before feeding your child, wash your hands and child's hands with soap and water*
- *Never give to your child sweets, cookies or any other snacks from the shops*