

# NUTRITION AND HEALTH

---

Facilitator Guide



**Keystone Foundation**

One Health Project  
Community Health and Well-Being Team

## Round 5 CHW Training: Nutrition and Health

### SESSION 1: NUTRITION AND IMPLICATIONS FOR HEALTH

Basics of Nutrition

Nutritional Planning

- Mapping
- Seasonal nutrition (make a calendar)
- Food as medicine

### SESSION 2: HOUSEHOLD NUTRITION

Basic Nutrition Requirements for Women and Men

Child's Nutrition

- Small Child Feeding
- Sick child

### SESSION 3: ORGANIZING A NUTRITIONAL DISCUSSION

Identifying Nutritional Danger Signs

Management of Acute Malnutrition

- MUAC
- Growth monitoring

# 1

# SESSION ONE

## Basics of Nutrition

### OVERVIEW:

In this study session, you will learn about some of the basics of nutrition. You will learn what is meant by food and diet as well as the meaning of nutrition and nutrients in general. What food does to our body and how the body uses nutrients is also explained. Finally, the relationship between health, nutrition and development is described through the perspective of Keystone. The overall purpose of this session is to teach you some of the basics about nutrition that you will be able to use in your work and will inform your learning throughout the whole of the Module.

### LEARNING OBJECTIVES:

Objective:	The CHW will be able to:
To understand how our bodies use food and why a good diet is required	<ul style="list-style-type: none"><li>• Define the terms associated with nutrition</li><li>• List the things that should be avoided in our diet</li></ul>
To describe the differences and relationships between food, diet, and nutrients.	<ul style="list-style-type: none"><li>• Explain the relationship between nutrition and health, and nutrition and development.</li></ul>
To describe which types of foods belong in which nutrient category.	<ul style="list-style-type: none"><li>• List the different nutrients available and how they are used by the body</li></ul>

## Background

The Kurumbas and the Irulas are traditionally hunter gatherer communities and shifting agriculturalists. Their diet consisted of millets, seasonal fruits, vegetables, greens and tubers gathered from the forest and their surroundings, agricultural produce, fishes and wild meat contributing to diverse diet. The larger part of their meal was millets, vegetable with game meat if available. Millets was the staple food. With the shift in livelihoods to mostly wage labour, small scale farmers (mostly cash crops), other daily jobs and along with the introduction of Public distribution system(PDS), their diet has considerably changed (adapted from the diet/diversity report chapter of health report).

This shift in their nutrition has led to drastic undernutrition – both a consequence as well as a cause of poverty, and integrational cycle of undernutrition. Because of this nutrition needs to be kept as central to the achievement of “well-being” in the communities. It is critical that Keystone takes on the challenge of preventing undernutrition, as early as possible, across the life cycle, and to avert irreversible cumulative growth and development deficits.

## Introduce New Lesson

*We will be talking about a strategy for nutrition that will promote “nutrition throughout the life cycle.” The most important aspect of nutrition is to help you learn how you as a CHW can help advocate for best food choices, plan for best nutritional practices, and deliver the best advice related to food and its connection to health. By keeping this mindset, you will be part of practicing an integrated package on nutrition that will help achieve the best public health impact in the communities that you work for. The goal of this section is to cover the seven essential nutrition actions that need to be targeted in the communities. Before diving into specific actions and messages that CHWs can communicate with the members, it is important to cover the Keystone strategy to tackle and address the nutritional issues concerning our communities.*

## Story:

### Story of Malnutrition

Suji, a pregnant woman, lives in a nearby village. Her family grows ground nuts, bean and millets to sell at the market. Because they know that her family can get a high return for their goods that they sell they intentionally make sure to not include them in the family’s meal. Every evening, Suji and her child share a bowl of rice for dinner. Her husband works as a cooli and eats dinner with his friends there most nights. However, because Suji is not providing her body with enough nutrients that it needs, she goes into labor early. Her baby is too small to survive and ends up dying after three days.

### Story of Preventing Malnutrition

The CHW visits Shakti in her home and explains that she should eat her main foods and that she should increase the amount of food that she eats and the number of times she eats each day. All actions that are important for the health of everyone in the family, but especially for Shakti because she’s pregnant. More importantly, the CHW helps the family plan how to separate tomatoes, onions, peppers, and other items from the kitchen garden he has planted into two piles. Shakti is told to save one pile to prepare meals for the family and the husband can take the other pile to the market to sell.

## Lecture: How bodies use food

Food contains nutrients – substances which the body uses for growing and functioning. Food gives us energy to move, think and work. Food also contains important substances which keep our bodies strong and healthy, help to boost our immune system and protect us from infections. When we eat, our bodies absorb useful nutrients into the blood where they are transported to areas where they are needed. These include the bones, the muscles, the brain and the organs. The waste material is removed from the body when we go to the toilet. Use this picture and the Keystone charts to guide a discussion on how food that we eat is connected to our body functions.

**Nutritious food gives our body the energy and substances to...**

**Definitions:**

**Food**

- Anything that is edible.
- Foods that are acceptable for culture, society, or religion

**Diet**

- Sequence and balance of meals in a day
- Concerned with the eating patterns of individuals or a group

**Nutrition**

- The interactions between food and the body.
- Contained in the processes of ingestion, digesting, and using

**Nutrient**

- The actual component of food that plays a functional role in the body's activity

**Tip for Facilitator:** Background information is required to explain how exactly the food gives our body energy and the substances to survive. This plan for meeting food needs should place more of an emphasis on giving enough of the traditional 'main foods' and supplementing it with other food groups. This the best way to have it be adaptable to the resources and limitations of poor families.

## Large Group Discussion: Things to Avoid in our Diet

Ask the group what their thoughts are about these two statements:

*"I should change my diet depending on the type of sickness I have"*

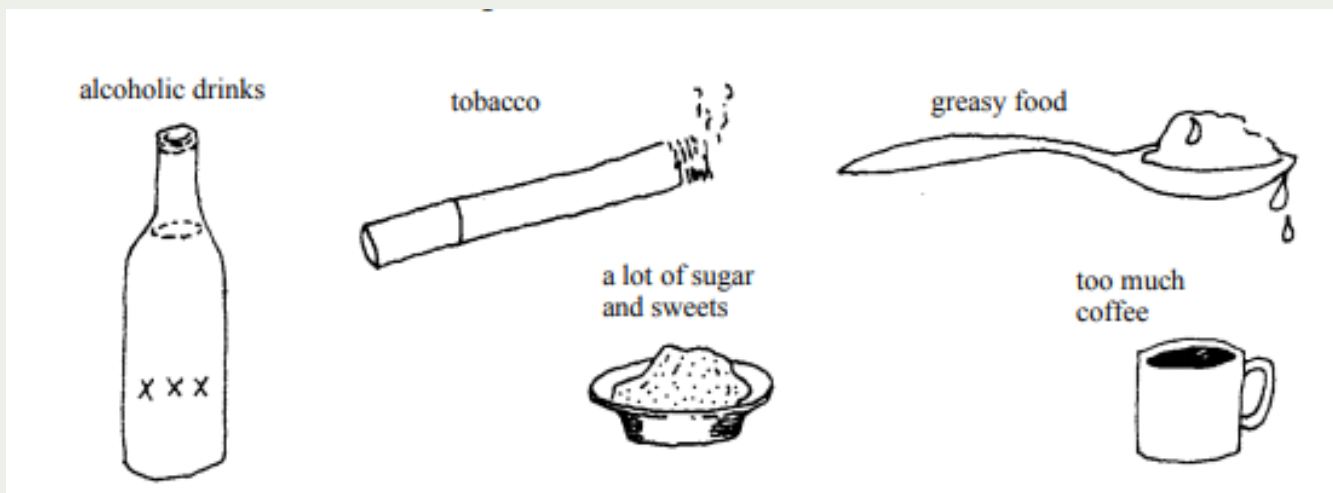
*"I should completely change my diet after I give birth"*

**Myth:** A lot of people believe that there are many kinds of foods that will hurt them, or that they should not eat when they are sick. They may think of some kinds of foods as 'hot' and others as 'cold', and not permit hot foods for 'hot' sicknesses or cold foods for 'cold' sicknesses.

**Myth:** Or they may believe that many different foods are bad for a mother with a newborn child. Some of these beliefs are reasonable but others do more harm than good. Often the foods people think they should avoid when they are sick are the very foods they need to get well. As a rule:

***The same foods that are good for us when we are healthy are good for us when we are sick.***

These are the things that can harm us when we are sick:



Alcohol harms both physical and social problems

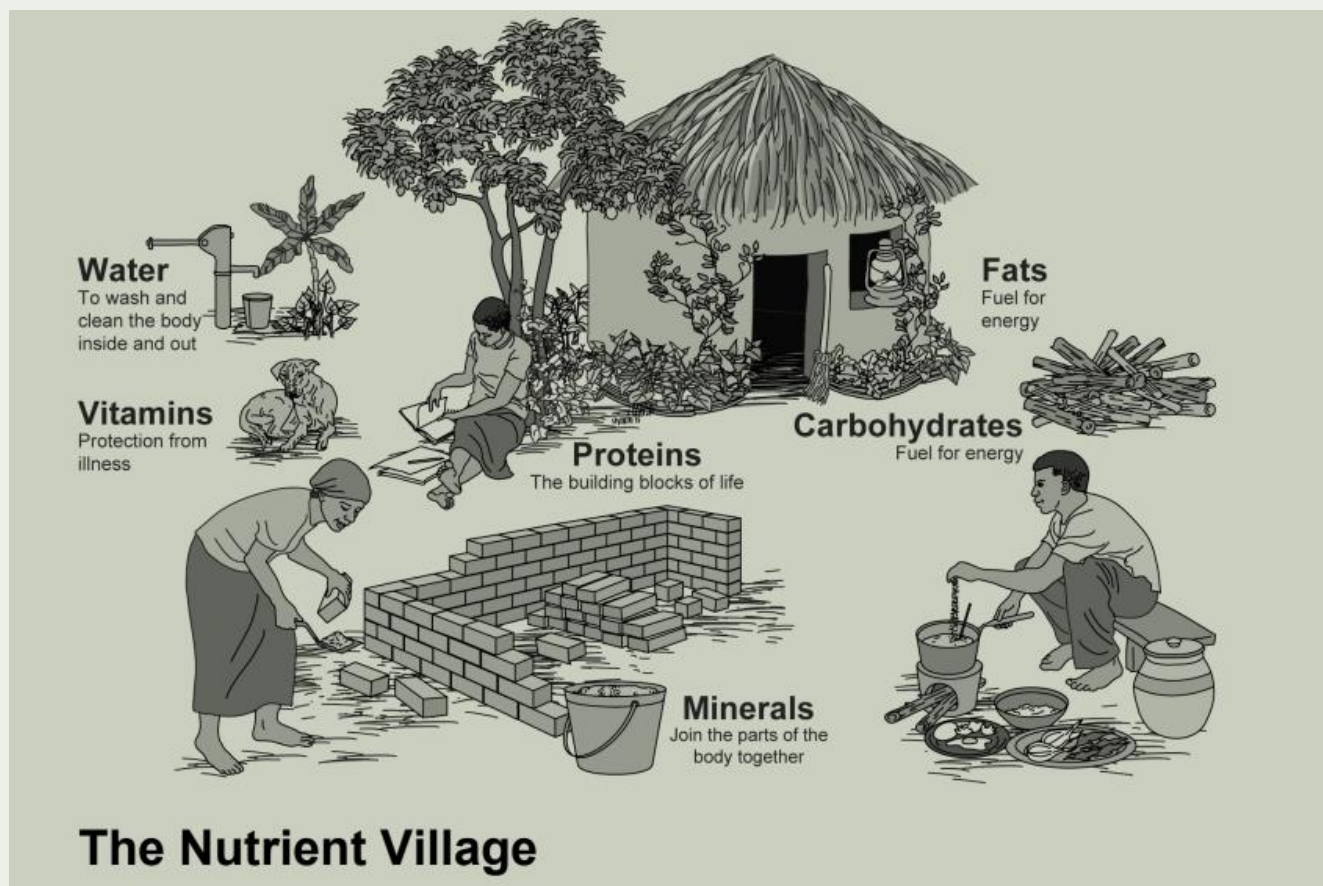
Smoking is the worst form of addiction can cause long term coughing or lung cancer.

Too much greasy food or coffee leads to ulcers or other digestive tract problems

Too much sugar spoils appetite and rot the teeth.

## Activity: Nutrient Village Game

The aim of this activity is to help participants clarify which types of foods belong in which nutrient category. Describe a village made completely out of nutrients. All of these nutrients work together to help us grow and mend ourselves, give us energy that we need to live, work, and play and they help with protecting our health and fighting off illnesses. Go over the analogy for each of the "village components"



Step 1: Read or summarize this:


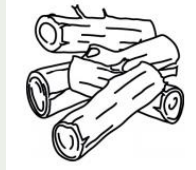

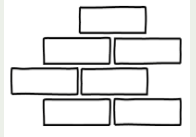




*Nutrients are grouped into 6 classes that do different jobs in the human body. Think of the different things that you need to build a house and how these things work together to make a good home. The nutrients from our food and water are like this, working together, to keep us healthy*

Step 2: The aim of this activity is to help participants clarify which types of foods belong in which nutrient category. Explain that the ingredient can be an animal product such as chicken, a vegetable such as a carrot, a piece of fruit such as a mango, a grain such as ragi or a legume such as peas.

Step 2: Collect all the pieces of paper and then mix them up together in a basket. Meanwhile, write the names of the different nutrient groups on a flip chart containing a picture of a nutrient village.

Step 3: Lay the pages on the floor in the centre of the room. Ask each participant to take two small pieces of paper from the basket.

Step 4: Get them to place each piece of paper on one of the flip charts on the floor according to the nutrient group that the ingredient is in. Ask the rest of the group to say whether they are correct.

	Purpose of food group	Food group examples	Health Impact	Analogy
	Foods that give us energy  <b>(Main Foods):</b>	Cereals and grains Starchy roots Fruits	The harder a person works the more energy he needs from his foods.  A diet with just these foods would make our bodies weak. Needs to be eaten with other foods.	 Like using firewood for cooking and heating energy. Our bodies run on fuel that we get from carbohydrates.
	Foods for growth and development  <b>(Proteins):</b>	Vegetable sources (pulses, nuts, peas, beans, soy, groundnut)  Animal sources (milk, cheese, eggs, meat, and fish).	Proteins are needed for making healthy muscles and brain.  Helps the body fight disease and repair tissues	 Like a house is built from bricks, our bodies use protein to build in a similar way.
	Foods that help prevent illness and disease  <b>(Vitamins and Minerals):</b>	Dark leafy vegetables, yellow/orange/red vegetables  animal products,  ragi, tamarind, jaggery	Helps our body work properly or we get sick  Making blood, bones, teeth healthy	 Like a guard dog that keeps bad things away. Vitamins and minerals will protect us from illnesses.
	Foods that give us extra energy  <b>(High energy foods):</b>	Fats(oils, ghee, meat) Fat rich foods(nuts, oil seeds), and sugars(jaggery, honey)	Stored energy.	 Like a lighting lamp, high energy fats can store energy that can be used for later.

### Review Key Questions:

Use the following questions as a basis for your discussion.

*Why do some families eat the same type of food every day? (ex: PDS rice)*

*What problems can arise if we do not have different types of ingredients in our meals?*

*How can we encourage families to have a more varied diet to get important nutrients?*



# 1

# SESSION ONE

## Nutritional Planning

### OVERVIEW:

In this study session, you will learn about how to talk about the relationship between health, nutrition and development is described through the perspective of Keystone. You will be teaching how different forms of malnutrition manifest as well as how the CHWs can help manage these symptoms if they come across it in the community. The CHWs will also get the chance to engage in a discussion about how to make food affordable and accessible. This discussion will touch on certain traditional, seasonal, and affordable healthy foods. The overall purpose of this session is to teach the CHWs how they can work with the community members to create a seasonal nutrition plan.

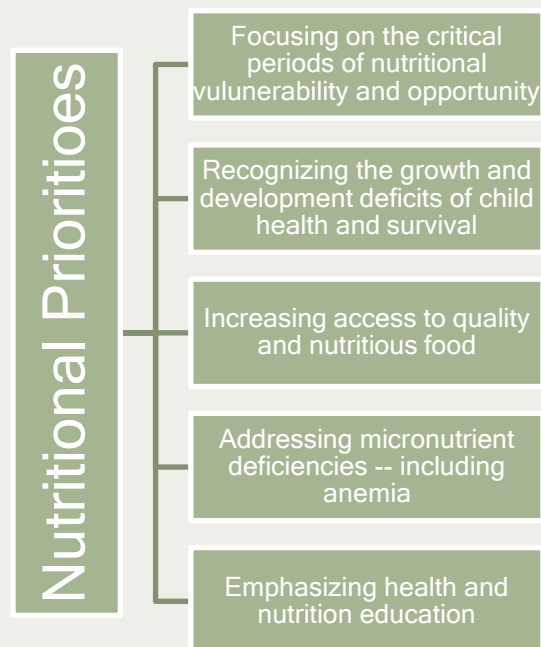
### LEARNING OBJECTIVES:

Objective:	The CHW will be able to:
To understand Keystone's strategy for nutritional prevention and control	<ul style="list-style-type: none"><li>• CHWs will be able identify the most up to date nutrition information for their communities</li><li>• Will be able to use the framework to guide them in introducing small-doable nutrition and hygiene actions</li></ul>
To describe the malnutritional deficiencies that are most common in these communities	<ul style="list-style-type: none"><li>• Explain the symptoms and the proposed treatment option for each.</li></ul>
To learn how to budget and eat healthy food	<ul style="list-style-type: none"><li>• Create a seasonal chart that includes traditional and local foods</li><li>• Discuss ways that better and nutritional foods can be introduced into a diet in innovative ways</li></ul>
To be aware of the delicate balance between human and the environment	<ul style="list-style-type: none"><li>• Problem-solve or be able to tap into Keystone services to approach the problem of poor nutrition in the communities</li><li>• Be knowledgeable about the ways that food can be used as medicine</li></ul>

## Introduce New Lesson

The topic of nutrition is very important to Keystone considering that we first started working with the honey hunters of the communities. Now, we want to teach CHWs how to align their work in the communities with the nutritional priorities of Keystone. Then, we will build on this knowledge to get familiar with the most typical manifestations of malnutrition. You will also learn how to treat and prevent these malnutritional deficiencies later on in this module.

## Lecture: Five Nutritional Priorities of Keystone



### Key Messages

Key Messages

## Lecture: Symptoms of Malnutrition and Nutrient Deficiencies

When nutrition is not adequate, certain body organs, such as skin, blood, or nervous system, may be affected, or the entire body may become abnormal. Use this handout to describe the different manifestations of malnutrition:

### Anemia

A person with anemia has thin blood. This happens when blood is lost or destroyed faster than the body can replace it. Not eating enough foods rich in iron can cause anemia or make it worse.

#### Treatment options:

eat dark leafy green vegetables, meat, fish, and chicken (liver especially), legumes all have iron.

Cooking in iron pots can help.

Iron pills should be taken if severe

*The signs of anemia are:*

- pale or transparent skin
- pale insides of eyelids
- white fingernails
- pale gums
- weakness and fatigue



- If the anemia is very severe, face and feet may be swollen, the heartbeat rapid, and the person may have shortness of breath.
- Children and women who like to eat dirt are usually anemic.

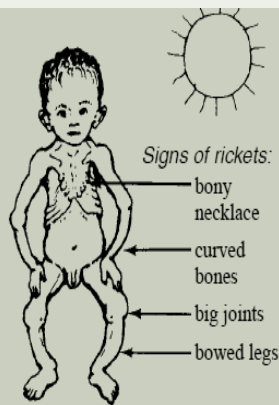
### Vitamin D Deficiency

Absorption of calcium from foods and is essential for normal growth and development of bones and teeth. Inadequate calcium causes a condition called rickets in which bones are weak and curved. Vitamin D is present in fish, butter, cream, egg yolks, liver, and some vegetable oils.

#### Treatment options

Give child fortified milk and vitamin D (found in fish liver oil).

Best prevention: direct sunlight for 10 minutes a day.



SUNLIGHT IS THE BEST PREVENTION AND TREATMENT OF RICKETS.

### Iodine Deficiency

Iodine is a substance that is needed for normal brain development and body function. It is present in the soil in most areas of the world and is taken up by plants. When people living in these areas eat locally grown vegetables or fruits, they take in enough iodine for normal health. Signs of iodine deficiency are mental retardation in children, high rates of miscarriage, and goiter (swelling of a gland in the neck).

#### Treatment options

Use iodized salt.

NEVER use regular salt.



### Diabetes

Persons with diabetes have too much sugar in their blood. This can start when a person is young (juvenile diabetes) or older (adult diabetes). It is usually more serious in young people, and they need special medicine (insulin) to control it. But it is most common in people over age 40 who eat too much and get fat.

#### Treatment Options

Test urine to see if you get your urine tested. Control sugar and sweets, must eat a lot of high fiber foods. Good hygiene can help control infection.

#### Early signs of diabetes:

- always thirsty
- urinates (pees) often and a lot
- always tired
- always hungry
- weight loss

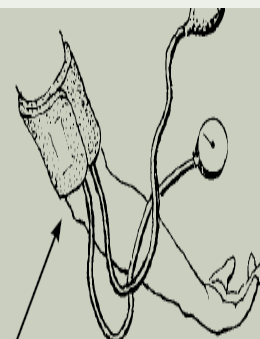
#### Later, more serious signs:

- itchy skin
- periods of blurry eyesight
- some loss of feeling in hands or feet
- frequent vaginal infections
- sores on the feet that do not heal
- loss of consciousness (in extreme cases)

### Signs of dangerously high blood pressure:

- frequent headaches
- pounding of the heart and shortness of breath with mild exercise
- weakness and dizziness
- occasional pain in the left shoulder and chest

All these problems may also be caused by other diseases. Therefore, if a person suspects he has high blood pressure, he should see a health worker and have his blood pressure measured.



A BLOOD PRESSURE CUFF for measuring blood pressure

### High Blood Pressure

Can cause many problems, such as heart disease, and stroke. People who are overweight are more likely to have high blood pressure.

### Key Messages

**Iron deficiency anemia** is a common problem in pregnant women and can be prevented by giving ferrous sulfate and folate tablets once a day for 3 months.

In order for children and adults to have **strong bones**, they should have direct sunlight on their skin for a short while at least several times each week.

**Goiter** in a member of the community usually means that the area in which the community lives does not have enough iodine in the soil. This problem is difficult to remedy, and one solution is to purchase in a city iodized salt for all members of the community to use.

**Educate community members** to eat meat, beans, eggs, dark green leafy vegetables, and fruit in order to avoid anemia and to feed small amounts of these foods to babies who are breast-feeding.

**Educate community members** to allow young children and adults to have exposure of their uncovered skin to sunlight at least several times each week to help absorb calcium and prevent rickets. The swaddling wrapped around babies must be loosened to allow some sunlight to reach the baby's skin.

Observe children and adults to note any signs of **nutritional deficiency**. If cases of nutritional deficiency are seen, make a home visit to learn the cause and help plan a way to correct the problem.

### Role play: Counseling on Nutrition

Divide participants into pairs. Tell them that they will be practicing a household conversation about nutrition. Give two prompts to each pair, and instruct participants to take turns playing the CHW using a different prompt in each round.

The participant playing the role of the "household member" should answer the questions according to the prompt, and the participant playing the role of the "CHW" should follow the job aid to assess nutritional standing and offer the appropriate messages. After giving participants time to practice in pairs, ask one or two groups to perform for the whole group. Encourage participants to provide feedback.

#### Prompt 1

The CHW visits a household member who says she knows the importance of Vitamin A, iron, and traditional foods in aiding her children's growth but her children do not like the taste of these foods so she has stopped preparing them.

#### Prompt 2

The CHW visits a household member who 1) has five children, and 2) says no one in the household eats 3 meals because the household cannot afford enough food to do so during the dry season.

## Discussion: Traditional foods and how has it changed

Divide into groups and ask the participants to discuss ways that they can save money without sacrificing a healthy diet. Ask them to do two things:



Think about what foods are available in each season in your area. When do you have most choice and lots to eat? When is it harder to feed yourself or your family?



List the foods you eat and what food group they belong to. Once you have a long list of when foods are available, you will be able to see the gaps. How can you start to fill these gaps?

## Activity: Budgeting and eating healthy food

Handout a chart that they can use to think through their local and seasonal foods:

Food Group	Food Name	Dec- Mar	Apr-Jul	Aug-Nov
Fats				
Animal Foods				
Legumes & Nuts				
Vegetables				
Fruit				
Staples				

### Key Messages

Nutritious food such as meat, milk, dairy products and fruit can cost a lot of money. Eating more carbohydrates than healthy ingredients may be cheaper, but this puts the family's health at risk. In the long run the family may end up spending more money on medicines because family members get sick all the time. The best way to save money on food is to grow as much of your own fresh food as you can and, if possible, keep livestock.

Avoid trying to buy drinks and sweets containing a lot of sugar and coloring and processed foods.

The reduction of diversity could be because of less reliance on the local foods that are found around, and the knowledge about how to find and use their foods.

## Large Group Discussion: Better Foods at Low Cost

Many of the world's people eat a lot of bulky, starchy foods, without adding enough helper foods to provide the extra energy, body building, and protection they need. This is partly because many helper foods are expensive—especially those that come from animals, like milk and meat.

Most people cannot afford much food from animals. Animals require more land for the amount of food they provide. A poor family can usually be better nourished if they **grow or buy plant foods like beans, peas, lentils, and groundnuts together with a main food such as maize or rice, rather than buy costly animal foods like meat and fish.**



- Breastmilk: cheapest, healthiest, and most complete food for a baby



- Eggs and chicken: They can be cooked and mixed with foods given to babies who cannot get breast milk.
- Eggshells that are boiled and finely ground up can be given for calcium



- Liver, heart, kidney, blood: higher in protein, vitamins, iron and often cheaper than other meat.



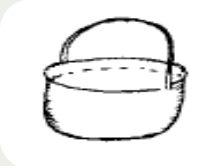
- Beans, peas, and other legumes: Not only a low-cost form of protein. Growing these crops makes the soil richer so that other crops will grow better afterwards



- Dark, green leafy vegetables: have iron, lots of vitamin A, and some protein. They can also be dried, powdered, and mixed in with food



- Cooking vegetables, rice, and other foods in little water: ensures that fewer vitamins and proteins are lost. Drink the leftover water from this or use it for soups in other foods.



- Cooking in iron pots or putting a piece of old iron in a pan: Can add iron to foods can help prevent anemia

## Lecture: Balance between People and Environment

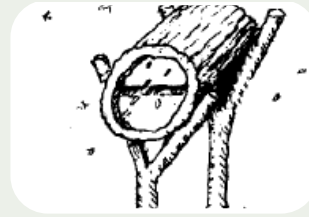
There are many ways to approach the problem of poor nutrition. Here are a few examples of ways some people have helped meet their needs for better nutrition



**Kitchen Gardens**



**Rotation of Crops**



**Beekeeping**



**Composting**



**Smaller Families**

### Review Key Messages

In a lot of villages, poor nutrition plays a part in other health problems. People cannot be healthy unless there is enough to eat. Whatever other problems you decide to work with, if people are hungry or children are poorly nourished, better nutrition must be your first concern.

If the CHWs are interested then they can try to work toward a balance between people and land through 'family planning,' or helping people have only the number of children they want.

**Tip for facilitator:** It is important to supplement the different suggestions given above with information on how they can make changes in their own communities.

## Lecture: Food as medicine

Good nutrition is a great foundation for health. It does not in any way replace medical treatment but can help the person who is sick recover or cope with their illness. People who are malnourished get sick more easily. Their bodies cannot repair the damage caused by infection because they are not getting enough body-building "main foods."

- Many illnesses reduce the body's ability to absorb food, so even if people are eating normally, their bodies do not get enough food. The body stops putting on weight and the sufferer becomes very thin and weak.
- Many illnesses, including those mentioned above, change the way the body functions, making it need more nutrients.

Use the chart below to lead a discussion on how family members can help people with an illness with food:

Illness	Foods that can be help...
Diarrhea and vomiting	<ul style="list-style-type: none"> <li>• soups made from mashed vegetables in water</li> <li>• fruit juice mixed with water</li> <li>• soft mashed foods such as fruit mash, sweet potatoes and pumpkin mash.</li> <li>• refined foods – white bread, white maize meal, white rice.</li> <li>• Giving foods that are high in zinc: meat, leafy green vegetables, nuts, pumpkin, millets</li> <li>• Oral rehydration solution: half a teaspoon of salt and 6 teaspoons of sugar mixed in 750 ml of water.</li> </ul>
Nausea	<ul style="list-style-type: none"> <li>• Helping the sick person to drink tiny amounts of water, soups and herb or spice tea, especially mint or ginger.</li> <li>• giving them fresh orange or lemon peel to sniff.</li> <li>• Giving dry salty foods and snacks.</li> </ul>
Coughs, Colds, Flu	<ul style="list-style-type: none"> <li>• Make them drink a lot of water and liquids</li> <li>• Make a homemade inhalation: Place leaves such as eucalyptus (gum tree) leaves, lavender, rosemary or thyme into a bowl of boiling water and ask the sick person to hold their face over the bowl.</li> <li>• Crush a lemon and mix the juice with honey. Take large spoonful as necessary to sooth the throat.</li> </ul>
Fever	<ul style="list-style-type: none"> <li>• Drink plenty of fluids.</li> <li>• Have a warm bath or wash using a cloth.</li> <li>• Try herbal remedies such as a lavender or thyme inhalation.</li> </ul>
Constipation, bloating, gas	<ul style="list-style-type: none"> <li>• Giving fermented foods such as moor, yogurt, fresh vegetables and salads</li> <li>• Eating plenty of fiber</li> </ul>



	<ul style="list-style-type: none"> <li>• Avoiding cabbage, onions, beans, and refined foods</li> </ul>
<b>Sore Throat and Mouth</b>	<ul style="list-style-type: none"> <li>• Give them soft mashed foods such as porridge, mashed fruit such as mango, guava, and mashed vegetable dishes such as pumpkin with sweet potato mash.</li> <li>• Mix sour milk or peanut butter in their food for added protein.</li> </ul>

### Key Messages

If a person is sick and experiencing more than one symptom, the information given below in one section may contradict that given in another. For example, if they are losing weight we recommend adding fatty foods to their meals to help them gain weight. If they are suffering from diarrhea as well, however, fatty foods can make it worse. In such cases it is important to read all the information in the relevant sections and avoid eating foods which either section tells you might be harmful.

Families or carers can help people who are suffering from these ailments. Have the CHWs get used to using this job aid.

# 2

# SESSION TWO

## Basic Nutrition Requirements

### OVERVIEW:

In this study session, you will be working with the CHWs to get better at classifying and emphasizing the basic nutritional requirements for the entire household. The CHWs will get a better idea of how to describe and intervene on the probable causes of malnutrition in women and men and children. The overall purpose of this session is to teach the CHW how to use their knowledge of basic nutritional requirements to manage sick and malnourished members of the household.

### LEARNING OBJECTIVES:

Objective:	The CHW will be able to:
To know what makes a healthy diet for household members	<ul style="list-style-type: none"><li>• Know how to carry out the “healthy plate” activity in the community</li><li>• List the elements that make a healthy diet</li></ul>
To describe the four causes of women malnutrition	<ul style="list-style-type: none"><li>• Explain why the four factors lead to malnutritional status amongst women</li></ul>
To learn about the special nutritional requirements for pregnant women	<ul style="list-style-type: none"><li>• Use this informational job aid in the field to counsel and help pregnant women eat well during their pregnancy</li></ul>
To understand the importance of the different interventions for anemia for women throughout their life cycle	<ul style="list-style-type: none"><li>• List the ways that interventions and the different stages of the life course can lead to women being anemic</li></ul>

## Introduction

*It is important to consider what makes up a “healthy plate” and ways that we can all have a part in making that a priority. This lesson introduces you to the components of a healthy diet. This will be crucial in getting you to think in terms of healthy meals. This knowledge is needed to understand the different causes of malnutrition in women, men, and children. After this lesson, you will be more confident in addressing and approaching individuals about topics concerning malnutrition and health.*

## Story

### Story of a Death

A woman in a nearby village, Niesha, has 2 daughters and a son. Last year, Niesha became pregnant with her fourth child. The clinic was over an hour away, and Niesha was busy caring for her other children. After having given birth to three healthy children, Niesha felt confident that she did not need the advice of health professionals. She did not visit the clinic during her pregnancy.

Niesha had heard that the larger the baby, the more difficult the birth is, so she tried to eat less during pregnancy to avoid gaining weight and to keep her baby small. Niesha began to feel weak and tired. She had frequent headaches and became short of breath when she had to walk even short distances.

One day Niesha noticed that she was bleeding. During her previous pregnancies, she would occasionally spot blood, so she did not think it was serious.

Only 6 months into her pregnancy, Niesha began to have contractions. She tried to get to the clinic but could not find a car to take her in time. Niesha gave birth to a stillborn boy. Niesha was very sad and blamed herself for not going to the health facility when she began spotting.

### Story of a Death Prevented

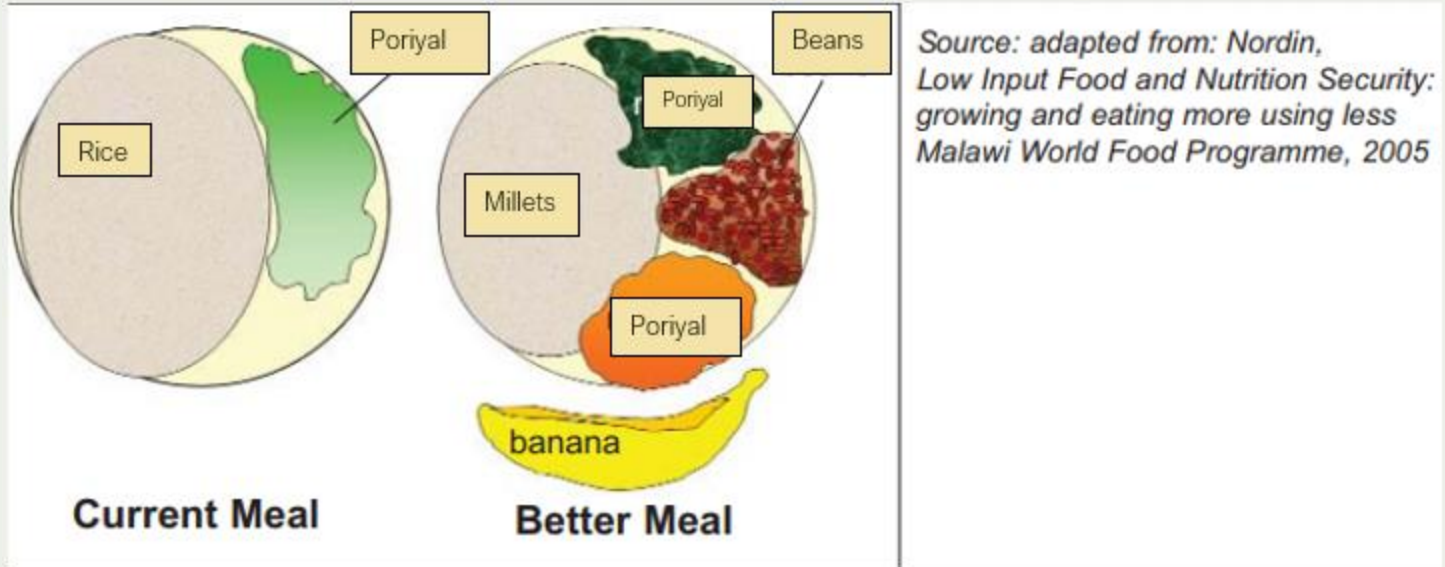
A woman in another village, Hala, was also pregnant. She was very happy.

Hala's family was as poor as others in the village. A CHW visited her and encouraged her to go to the clinic for antenatal care. She went to the clinic 4 times during pregnancy.

The CHW also explained that it was important for Hala to eat extra portions of food, especially animal-based foods and leafy green vegetables, and take iron and folate supplements.

Hala gained weight during her pregnancy, and she could feel her growing baby strong and active inside her. When labor started, Hala immediately contacted her neighbor to take her and her husband to the clinic, where she gave birth to a healthy daughter. The baby is 1 year old now.

## Large Group Activity: The Healthy Plate



This activity teaches the CHW what a “healthy meal” includes. The main message is to have a meal contain no more than 50% of carbohydrates (rice, potatoes, bread), 15% of protein (beans, meat, eggs), some fat 5% and the rest should consist of vegetables and fruit. People need to eat at least five different types of fruit and vegetables every day. And also, have at least 8 glasses of water.

The aim of the activity is to help the CHWs review the components of a healthy diet so they can also start thinking in terms of healthy meals.

Step 1: Get the pieces of the paper with the names of the ingredients written during the nutrient group game and draw a large plate on a piece of paper

Step 2: Ask volunteers to divide the plate up using lines to show the proportions of different food groups that should be eaten in each meal.

Step 3: Place the ingredients cards made in Session 2 into seven bowls according to the following groups: carbohydrates, fats, proteins, fruit and vegetables.

Step 4: Ask a volunteer to choose a card from the carbohydrate bowl. Place it on the carbohydrate side of the healthy plate. Explain that the carbohydrate will form the basis of the meal. Next, get a volunteer to choose an ingredient from one of the protein bowls and to place it in the protein segment on the plate. Repeat the process for all the bowls until you have a healthy, mixed, balanced meal. This activity can be repeated a number of times to show how to combine different ingredients.

## Activity: Causes of Women Malnutrition

The goal of this activity is to describe the probable causes of: (1) anemia, (2) underweight during pregnancy, (3) lack of diverse diet during pregnancy, (4) women who are overweight

Step 1: Divide participants into 4 groups

Step 2: Four flip charts set up throughout the room the following titles: (1) anemia, (2) underweight during pregnancy, (3) lack of diverse diet during pregnancy, (4) women who are overweight

Step 3: Ask group to list the possible cause of these nutrition issues. They should refer to the flip chart on the nutritional situation of women first and then think about causes in the community =

Step 4: Assign a flip chart to each group. Tell the group that each group has 5 minutes at their flip chart to write as many points as they can think of (without repeating those already listed).

Step 5: After 5 minutes, the facilitator asks the groups to rotate to the next flip chart and repeat the exercise. Repeat this process for each of the four flip charts.

Step 6: Each group reads out the points listed on their flip chart. And then summarize by asking which of the causes can be addressed through contacts between health facilities and families. Which ones require support or intervention by other sectors?

## Lecture: Adolescent and Women's Nutrition

Use this handout to guide a lecture on the factors that can contribute to malnutrition at any stage in a woman's life.

Factors that contribute to malnutrition			
Anemia	Underweight during pregnancy	Lack of diverse diet during pregnancy	Overweight
<ul style="list-style-type: none"> <li>• Lack of iron-rich foods</li> <li>• Lack of iron supplements</li> <li>• Lack of health services</li> <li>• Tea &amp; coffee with meals prevents iron absorption</li> <li>• Lack of vitamin C (to increase iron absorption)</li> <li>• Worms</li> <li>• High pregnancy rate</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate dietary intake (quality, quantity, frequency)</li> <li>• Lack of diversity of foods</li> <li>• Lack of care practices</li> <li>• Sociocultural norms</li> <li>• Substance abuse (alcohol, drugs, smoking)</li> <li>• Processed and fast foods (especially among adolescents)</li> <li>• Poor body image (especially among adolescents)</li> <li>• Worms</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate dietary intake (quality, quantity, frequency)</li> <li>• Lack of diversity of foods</li> <li>• Lack of care practices</li> <li>• Sociocultural norms</li> <li>• Substance abuse (alcohol, drugs, smoking)</li> <li>• Heavy work load</li> <li>• Lack of supportive environment</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate dietary intake (quality, quantity, frequency)</li> <li>• Lack of diversity of foods</li> <li>• Lack of care practices</li> <li>• Sociocultural norms</li> <li>• Lack of exercise</li> </ul>

## Lecture: Special nutritional requirements for Pregnant Women

Use this handout to cover the recommended nutritional practices for pregnant women.

Nutrition Practices for Pregnant Women	Supporting Information
<p>1. Eat one additional meal every day when you are pregnant to maintain your strength.</p>	<p>Pregnant women need to eat a variety of foods, particularly animal products: <i>liver, meats, dark green leaves, raisins, dried plums, beans, egg yolk (for iron); dairy group, dark green leaves, and broccoli (for calcium); breads, grains (rice and porridge), potatoes (for energy); fruits (citrus fruits, oranges, tomatoes) and vegetables, particularly carrots and pumpkin.</i></p> <p>Pregnant women need to eat more than usual</p> <p>A woman who is already overweight needs to eat more variety of food not necessarily more food</p>
<p>2. As soon as you know you are pregnant, speak to a health worker to get iron and folic acid supplements to prevent anemia and maintain your strength.</p>	<p>Pregnant women have increased needs for iron. Inadequate iron intake will lead to anemia, which will make them unwell and tired.</p> <p>Iron and folic acid tablets are important to prevent anemia in a pregnant woman and will help to keep them and the new baby healthy.</p> <p>Because women lose blood during delivery, they need to increase their iron stores for the sake of their health and the baby's. (Iron passes into breast milk).</p>
<p>4. Eat foods rich in iron every day when you are pregnant to prevent anemia.</p>	<p>Foods rich in iron include <i>liver, organ meats, meats, dried apricots. Poultry</i> is moderately rich in iron.</p> <p>Other sources of iron: green leafy vegetables, dried beans (cowpeas), soya beans, groundnuts.</p> <p>Eating fruits with meals will enhance iron absorption.</p> <p>Avoid taking tea and coffee with meals.</p>
<p>5. Gain reasonable weight</p>	<p>The fetus, placenta, and amniotic fluid together weigh about 5 kg by the end of pregnancy.</p> <p>The pregnant woman needs to increase her energy (fat) stores to support lactation after the baby is born (exclusive breastfeeding for 6 months and continuation until the baby is 2 years old).</p> <p>Lactation requires additional energy and a mother who is too thin may become weak with the effort of breastfeeding, even though she will be able to produce sufficient breastmilk.</p>

6. Wash your hands with soap and running water after visiting the toilet and before handling and eating food.	Good hygiene and sanitation is important to prevent infection with worms and should include— <ul style="list-style-type: none"> <li>• washing hands with soap before eating and handling foods</li> <li>• washing hands with soap after visiting the toilet and after cleaning a child's bottom</li> <li>• keeping your environment clean.</li> </ul>
7. Cook food using iodized salt so that family members remain healthy.	Pregnant women need to consume iodized salt for the health of their babies.
8. Spacing pregnancies	Space pregnancies to allow for rebuilding mother's nutrient stores between lactation and the next pregnancy.

### Key Messages

Pregnant women need to eat a healthy balanced diet with food from all three food groups every day:

- Energy foods (rice, bread, maize)
- Growth foods (fish, meat, eggs, beans)
- Protective Foods (fruit, vegetables)

- They should also ensure they eat vitamin A rich foods such as liver, eggs, dairy products, fatty fish, ripe mangoes, papaya, sweet potatoes, green leafy vegetables, carrots and palm oil; vitamin C rich foods such as oranges tomatoes and citrus and iron-rich foods such as liver, eggs and dark green leafy vegetables.

- Iodized salt should be used instead of ordinary salt during pregnancy to help prevent illness; salt should be used in small amounts.

- Take extra care with hygiene: always wash hands with soap or ash after using latrine, before preparing or eating food, or feeding children

### Discussion

*Why should a CHW emphasize good nutrition for a pregnant woman?*

*What nutrients are especially important in pregnancy?*

*Are pregnant women in your community able to eat these nutrients? If not, why?*

*Ask the female CHWs to describe what they ate while they were pregnant, and the male CHWs to describe what their wives ate.*

## Large Group Activity: Interventions for Anemia throughout the life cycle

1. Be familiar with the diagram below:

### FOR WHOM - Interventions over the LIFE-COURSE



- **Pregnant woman** - IFA, deworming\*, fortification, dietary counseling



- **Woman of Reproductive age** - Birth spacing, delayed cord clamping, EBF, fortification, dietary counseling



- **Child (under 2 and under 5)** - BF, MNPs, fortified complementary food, MNPs, IFA, deworming\*, infection control



- **Adolescent woman** - IFA, family planning, birth spacing, fortification, dietary counseling

2. Divide the flip chart into four quadrants – each to represents the four causes of anemia: deficient intake, genetics, malaria and helminths, and inflammation.
3. Ask participants to suggest interventions to combat these causes of anemia. On a second flip chart, draw a similar four quadrant– each of the quadrants representing the four important age groups in whom these interventions are applied, namely children, pregnant women, women of reproductive age, and adolescent women.
4. As the participants list the interventions, write down the intervention in the first flip chart in the quadrant representing the cause related to the intervention. At the same time, ask the participants to list the age groups in whom the interventions can be applied and write down the answers in the corresponding quadrant on the second flip chart.

### Key Messages

Iron Folic Acid(IFA): Without enough folate, there is a danger that her baby will be born with defects. So she needs to take the IFA tablets from the health clinic.

Deworming: Intestinal worms can cause anemia, which leads to fatigue and poor health

Fortification: Use fortified foods. (Fortification is the addition of micronutrients and minerals to edible products like cereals, staples, oil, sugar, milk, and salt).

Exclusive Breastfeeding(EFB): Six months exclusive breastfeeding, followed by at least 18 months additional breastfeeding with complementary foods, and at least six months of neither breastfeeding nor pregnancy gives

best child outcomes. This would be inter-birth spacing of 39 months.

Birth Spacing: Communicate with fathers and family members on the importance of delaying the first pregnancy, and the importance of child spacing/family planning.



# 2

# SESSION TWO

## Child Nutrition

### OVERVIEW:

Children between the ages of 1 month and five years require a variety of nutrients and vitamins to grow in a healthy manner. CHWs are responsible for ensuring that households understand the importance of proper nutrition for growing children, and must be able to counsel households on the nutritional needs of children. By the end of this lesson, the CHW will be able to assess whether children in a household are eating the right food to fuel their growth and health, as well as counsel caregivers on the nutritional needs of their children.

### LEARNING OBJECTIVES:

Objective:	The CHW will be able to:
To assess the nutritional status of children in the household	<ul style="list-style-type: none"><li>Describe how to ask caregivers about the foods they provide for their children</li></ul>
To be able to educate caregivers about the nutritional needs of infants	<ul style="list-style-type: none"><li>Explain the importance of exclusive breastfeeding for children</li><li>Provide breastfeeding tips to the caregivers</li></ul>
To be able to educate caregivers about the nutritional needs of children aged 6 months through 5 Years	<ul style="list-style-type: none"><li>Identify 4-5 foods that children should be eating at these ages</li></ul>
To be able to identify appropriate interventions for sick and malnourished children	<ul style="list-style-type: none"><li>Explain the symptoms and recommendations for sick children</li></ul>
To identify the malnutritional manifestations in children	<ul style="list-style-type: none"><li>Act out the steps for identifying malnutritional status</li></ul>

## Introduce New Lesson

*“The purpose of this section is to promote proper nutrition for children from the first 6 months of life until five years of age. By the end of this session, you should be able to advise caregivers on the nutrients needed for healthy growth at the different stages of childhood, as well as proper feeding practices. You will also be able to use different techniques to identify malnutritional status in children as well as recommend nutritional practices accordingly.”*

## Story

Provide examples and/or data from the community that demonstrates positive and negative outcomes that can be impacted by CHWs. If you have difficulty finding a local context story, adapt the following stories to local community practices in order to ensure they are realistic to situations a CHW may encounter. Ask the participants to share their thoughts, questions, and concerns.

### Story of Poor Health

Priya's lived in a nearby village and was pregnant with her first child. When her baby, a son, was old enough to eat solid food, Priya fed him plenty of rice, yams, and ragi, as well as some fruits and vegetables when her family could afford them. Beyond this, Priya's family did not have any animals, and foods such as meat and eggs were very expensive at the market.

Without these body building foods to help him grow physically and mentally strong, her son's growth became stunted. As he grew older, he fell behind in school and eventually dropped out.

He was one of the smallest boys in his class, and when he tried to find work as a day laborer, he was told he was not strong enough. Although he is an adult now, Priya's son still lives at home. With little education and poor physical health, he is dependent on Priya and her husband.

Priya blames herself for her son's unhappy life.

### Story of Good Health

A woman in another village, Nibya, also had a son. After giving her son only breastmilk for six months, Nibya began to introduce him to a variety of foods in small, mashed portions.

At first, the baby did not like some foods, such as sweet potatoes. But Nibya ate with her son, encouraging him and showing him how much she liked those foods. She also continued to breastfeed him until he was two years old.

Nibya made sure her family ate balanced meals with plenty of energy giving, body building, and protective foods. She tried not to use the same ingredients every time, so her family could enjoy a diverse diet. Her son quickly grew strong and did well in school. He also did not get sick as much as some of the other children in his class.

## Discussion: Importance of Proper Nutrition for Children

Ask participants to explain “*why proper nutrition is important for children between the ages of 1 month and five years of age.*” Keep a list of participant responses on a large piece of paper or chalkboard. Put the list aside, explaining that the group will continue to check and revise it throughout the lesson.

## Lecture: Child Nutrition

Use this handout to guide a lecture on the best diet for small children

### THE BEST DIET FOR SMALL CHILDREN

#### THE FIRST 6 MONTHS

breast milk  
and nothing  
else

YES



NO



#### FROM 6 MONTHS TO 2 YEARS

breast milk



and also



cow, goat,  
or  
powdered  
milk

and other  
well-cooked,  
nutritious  
foods



**The first 6 months of life :** Breast milk and nothing else: can help protect against diarrhea and many other infections.

**6 months- 1 year:** Keep giving breast milk if possible until the baby is 2-3 years old. When the baby is 6 months old, start giving her other foods in addition to breast milk.

Prepare inexpensive, nutritious feedings for the baby by adding helper foods to the main food (see p. 110). Most important is to add foods that give extra energy (such as oil) and—whenever possible—extra iron (such as dark green leafy vegetables).

**One year and older:** After a child is 1 year old, he can eat the same foods as adults, but should continue to breast feed (or drink milk whenever possible).

Every day try to give the child plenty of the main food that people eat, together with ‘helper’ foods that give added high energy, proteins, vitamins, iron, and minerals so that he will grow up strong and healthy

#### Between 2 and 5 years

Give at least 1 full cup of food at each meal

Give at least 3 meals and 2 snacks each day

If your child refuses a new food, be patient and eat with them to show that you like it

Make sure that your child receives a vitamin A supplement once every 6 months

## Behavior Change: Child Nutrition

The households the CHW visits will all have had a different exposure to, and understanding of, the importance of child nutrition. It is important to listen to the household, assess their needs and level of understanding, and then tailor counseling messages to most effectively encourage healthy decision making. Remind them that the four stages of change are: *unaware, thinking about it, trying, and maintaining*.

Assign roles of household member and CHW and have them act out the scenarios and then have the participants guess which “stage of change” the individual is in. Then brainstorm effective counseling techniques as a group:

### Prompt #1

Vidya has three children. She stopped breastfeeding the first two when they began eating porridge, but she has heard that breastfeeding up to age two is healthier for her children and is considering continuing breastfeeding when her five month old daughter begins eating porridge soon.

*What stage of behavior change is Vidya at? How can a CHW help convince her to continue breastfeeding her children until the age of 2-3?*

### Effective counseling technique

Encouraging the caregiver to try the behavior of including breastfeeding into her child’s diet. By emphasizing the problems, the caregiver may have in providing proper nutrition to her children and help solve these problems.

### Prompt #2

Lakshmi’s child is three years old and does not like to eat vegetables. She tries many different ways of preparing vegetables and asks her child to eat one bite of vegetables at each meal.

*What stage of behavior change is Lakshmi at? How can a CHW help convince her to continue this behavior of having good nutritional practices?*


### Effective counseling technique

Encouraging continuation of good nutrition practices. Identifying and solving any problems the caregiver is having in adopting the behavior.

Praising the caregiver and encouraging her to continue proper feeding practices. Pointing out positive outcomes that have occurred or are occurring for her children as a result.

## Lecture: Danger Signs for Children

Many common sicknesses can come from not eating enough or well. Poor nutrition can lead to some of the following problems:

	<ul style="list-style-type: none"> <li>• Not gaining weight properly</li> <li>• Slowness in movements and thinking</li> <li>• Thinness around legs and arms and big bellies</li> <li>• Less energy and mood affected - sad</li> <li>• Swelling</li> <li>• Loss of hair</li> <li>• Poor vision, blindness</li> </ul>
---	---

### Mild Malnutrition



- Lack strength to fight infections
- Suffers more from diarrhea and colds
- More likely to die
- Prevention: get special care and food. Need regular growth monitoring and measuring around middle arm

### Dry Malnutrition

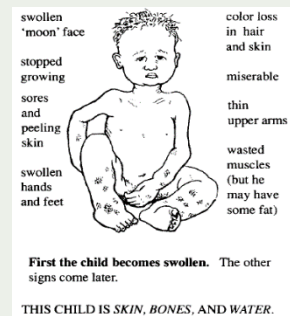
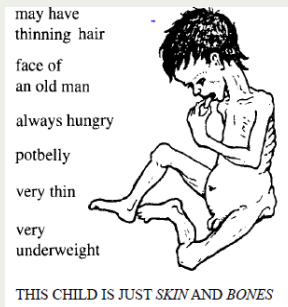
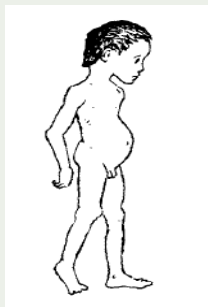


- Does not get enough of any kind of food -- is starved
- Looks very thin, and his body is small.
- Prevention: needs more food. A lot of energy foods

### Wet Malnutrition



- Feet, face, and hands are swollen
- Child not eating enough "body building" helper foods -- proteins.
- Eating beans, lentils, or other foods that have been stored in a damp or moldy place can also cause this
- Prevention: needs more foods rich in energy and in protein



## Review Key Messages

*Why is proper nutrition important for children?*

*What does a nutritious diet consist of?*

*What is your role, as a CHW, in promoting proper nutrition for children?*

# 3

# SESSION THREE

## Management of Malnutrition

### OVERVIEW:

In this study session, you will be working with the CHWs to get better at classifying and emphasizing the basic nutritional requirements for the entire household. The CHWs will get a better idea of how to describe and intervene on the probable causes of malnutrition in women and men and children. The overall purpose of this session is to teach the CHW how to use their knowledge of basic nutritional requirements to manage sick and malnourished members of the household

### Learning Objectives:

Objective:	The CHW will be able to:
To assess the danger signs related to nutrition in children	<ul style="list-style-type: none"><li>• Use this informational job aid in the field to assess, refer and report about the children in the household</li></ul>
To learn about the case management for diarrhea	<ul style="list-style-type: none"><li>•</li></ul>
To be able to identify appropriate interventions for acute malnutrition	<ul style="list-style-type: none"><li>• Conduct a MUAC screening at the household</li><li>• Learn how to make and read a growth monitoring chart</li></ul>
To identify the role of the CHW in promoting nutrition	<ul style="list-style-type: none"><li>• Learn how to appropriately use the job aids to manage and assess nutritional status for everyone in the household</li></ul>

## Introduce New Lesson

*At the end of this lesson, you should be able to explain, identify, and assess potential danger signs and risks of complications for newborns, child, and adults. For more of an in-depth understanding of how to respond to each of the danger signs – use the referral protocol.*

### Lecture: Child Danger Signs

Use this chart to go over common danger signs that are associated with poor nutrition and then cover the different ways that a CHW can help identify or respond to it.

Danger Sign	Why is it a danger sign?	Ways to Identify and respond to it
Dehydrated	Can lead to serious complications such as swelling of the brain, seizures, kidney failure	Children: “Have they been sweating or urinating recently?” Also ask if the child has a dry mouth, muscle cramps, or feels light-headed
Severe Pallor	If a child has severe pallor, s/he may be severely anemic, which can be life threatening as the body does not have enough red blood cells.	Babies: palm will be pale or white in color Children:
Unable to suck	Baby is unable to breastfeed and get the nutrients that it needs	Ask: “can your baby breastfeed” if the caregiver doesn’t know then see if the baby can or not
Not Passing Stool	Could be a blocked intestine	Babies: “Has the baby not passed any stool in 2 days?” “Has the baby ever passed stool”
Blood in Stool	Diarrhea with blood in the stool, with or without mucus, is dysentery, or an internal inflammation of the intestine. If left untreated, dysentery can be fatal. If there is blood in the stool, the child needs medicine that you do not have in the medicine kit and must be referred immediately.	Children: “ Does the child have diarrhea/dysentery?” “Is there blood in the stool?”
Vomiting	If a child is vomiting, then s/he is very dehydrated. This can lead to death. Note that a child that is vomiting everything cannot be given ORS or zinc because they can’t keep it down in their system. They must be treated.	Children: “Is the child vomiting a lot?” Ask the caregiver how often the child vomits. “Is it every time the child swallows food or fluids or only some times.” This is important because if it’s everytime then s/he can’t keep down fluids.
MUAC score of under 125mm(children) or 210mm(woman)	Indicator of malnutrition	This measurement for children ages 6 months – 5 years should be done every 90 days  Pregnant women: Every visit

Night Blindness	Vitamin A deficiency	Pregnant women: "Have you experienced abnormal difficulty seeing at night or in poor light?"
Diarrhea (for 7 days or more)	A person with frequent or persistent diarrhea will rapidly lose fluids and become dehydrated. Dehydration can lead to swelling of the brain, seizures, kidney failure, and death. A person with diarrhea can die as quickly as within 2 days after the onset of diarrhea  Diarrhea is when they have 3 or more loose or watery stools in 24 hours.	Children: "Does the child have loose or watery stool, if so how many times a day?"
Swelling of feet (oedema)	An abnormal accumulation of fluid beneath the skin caused by malnutrition	To check – press with thumbs on the top of each foot for three seconds  If child is severely malnourished then the dents will remain on the tops of both feet when you lift your thumbs

## Lecture: Diarrhea

Although diarrhea may be a common symptom experienced in these communities, it is important that CHWs understand that each case should be examined carefully. CHWs should be able to identify the degree of severity in a child experiencing diarrhea, perform treatments, and provide recommendations appropriate for the degree of severity. For severe cases of diarrhea, CHWs must provide the child with an emergency referral to the health clinic and help the caregiver make preparations for this visit. For less severe cases of diarrhea, CHWs may administer the proper treatments and talk with the caregiver about how and when these treatments should be performed. Finally, CHWs must be able to communicate well with the caregiver at all times, including engaging the caregiver in an active discussion on how to care for the child while he/she is experiencing diarrhea, as well as ways in which diarrhea may be prevented in the future

Read the following scenarios. Ask participants to explain if the situation qualifies as diarrhea (severe or not severe) and what is the correct course of action for the CHW to take.

Be sure that all of the points in the box below are covered. This information is taken from the **DIARRHEA** job aid. All CHWs must be familiar with these points when treating or referring any case of diarrhea. After discussing, present the correct answers:



Scenario	Severity
The individual has had diarrhea for 8 days	Severe case – must be referred to a clinic
The individual has had diarrhea for 2 days	The child should receive ORS and zinc treatment but does not need an immediate referral to a clinic
The individual has had one loose stool in the past 24 hours	The individual's condition does not count as diarrhea, but the caregiver should get in touch with the CHW if these loose stools persist for another day (diarrhea is defined as 3 or more loose stools within 24 hours (for children older than 6 months)
The individual has diarrhea and there is blood in the stool	Severe case – must be referred to a clinic

## Discussion

When you have completed the above activity, ask the group to discuss this:

*“From your understanding, what are the causes of diarrhea and how can they be prevented?”*

At the end of the session, review all of the key points and place emphasis on any of those that were not mentioned. Explain that these points appear in the job aid and all CHWs must be familiar with these points when advising caregivers on how to prevent diarrhea in the future.

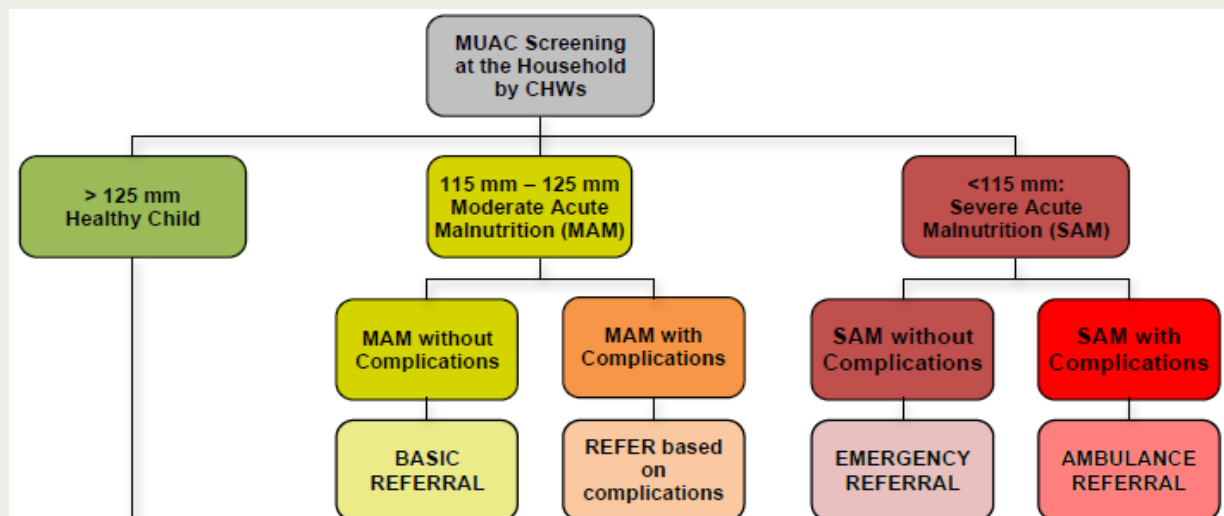
### Key Points

Wash hands as frequently as possible  
 Try using a latrine that you're comfortable with for defecation  
 Keep livestock stands separate from households and far away from shallow water sources  
 Boil, filter, or use chlorine tablets to disinfect water for household consumption  
 Store food and drinking water in close containers that are clean and disinfected

## Activity: MUAC testing

Define what acute malnutrition is and discuss why it is important to focus on:

- Acute malnutrition forms quickly and can be identified by thinness, weight loss.
- It is caused by a decrease in food consumption, a lack of nutritious foods, diarrhea and/or illness
- An individual can suffer from both acute malnutrition as well as chronic malnutrition (indicated by slow linear growth and shortness/stunting).
- Children beyond the age of one can be screened by the measurement of the middle upper arm circumference.



## Demonstration: How to conduct a MUAC Assessment for Malnutrition

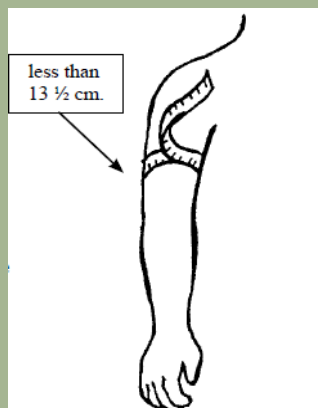
The main thing with this community-based approach that utilizes CHWs to screen the MUACs of children one year or older is that they need to be timely with their check ins and care for the child or member as long as it is needed.

Step 1: Explain the importance of checking for the distance around the upper arm by reading or summarizing this out loud:

*"Eating good food also helps the body fight disease. Even when a person is sick, it is crucial that they eat nutritious foods. A malnourished child can not grow properly. A good way to check if a child is poorly nourished is by measuring the distance around the upper arm."*

Step 2: Ask for a volunteer and use a tape to do the following:

- Gently bend the volunteer's left arm at a 90 degree angle
- On the upper arm, find the midpoint between the shoulder and the elbow. Use a pen to mark the midpoint if possible.
- Holding the large end of the tape against the upper arm at the midpoint, straighten the arm so that it is hanging down the side of the body in a relaxed manner.
- Put the other end of the tape around the volunteer's arm and pull both ends until the tape fits closely, but not so tight that it creates folds in the skin. Read the measurement



*A good rule of thumb: After 1 year of age, any child whose middle upper arm measures less than 13 ½ cm. around is Malnourished*

*If the arm measures less than 12 ½ cm then he or she is severely malnourished*

*If these measurements around the middle upper arm is present then it does not matter how the child looks in other parts of the body*

Step 3: Have the CHWs practice locating and measuring the upper middle arm and reporting on each other.

## Lecture: Growth Monitoring and the Road to Health

Measuring a child's growth is one way of detecting malnutrition. Healthy children grow very rapidly, especially in the first few years of life. The right maintaining of this record will help the parents of the child, the CHWs and the doctors to monitor the growth of the child and give special attention and nutrition whenever needed. As part of the 1,000 day framework, length and the weight of children under two should be measured at least once every three months.

The following chart will help in keeping track of the child's weight for the first five years of life:



This growth monitoring chart should be used for monitoring the child's growth each month from birth till he/she is 5 years old. The chart is divided into five main parts, indicating the five years. Each of the five months is then further divided into 12 smaller sections indicating each month. The weight of the child should be plotted on the chart respective to the age of the child. Maintaining this chart could be an easy method to monitor the growth of the child.

### Weight and Height Chart

Name:	Age:	Year:	
MONTH	WEIGHT		HEIGHT
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

## Activity: Measuring and Recording Weight

Step 1: Hand out the sheets with the growth chart and related info on it.

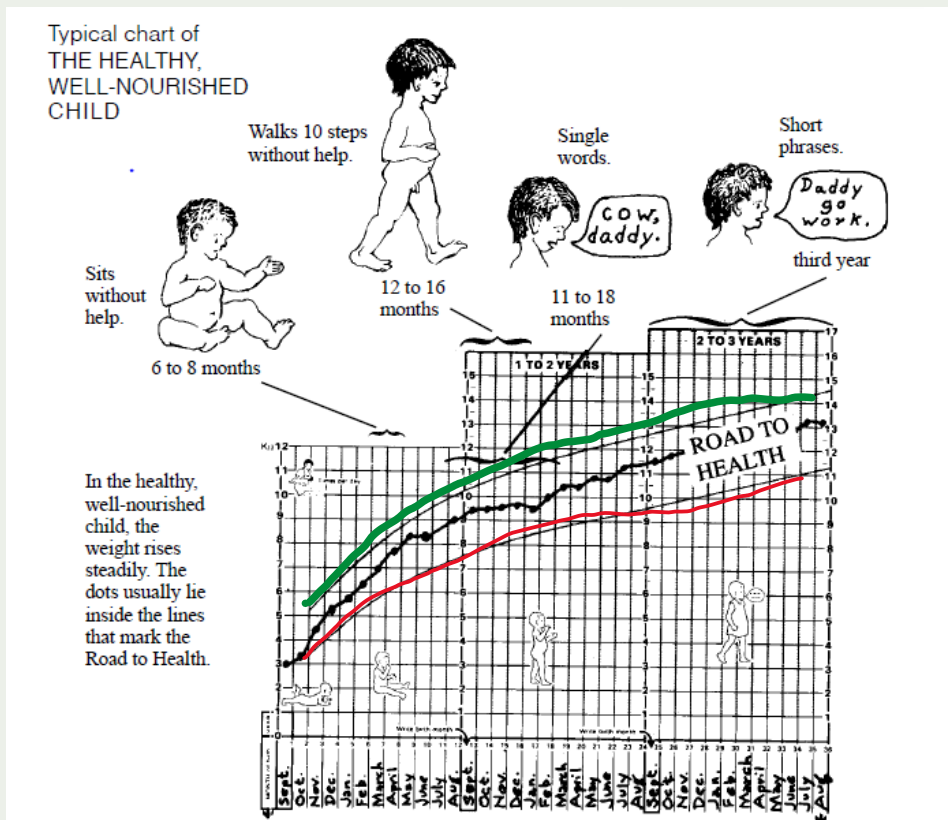
Step 2: Have them first write the months of the year in the little squares at the bottom of the chart. Start with the month that the baby was born. Point out that the kilograms are written on the side of the card.

Step 3: Show them how to measure using a standing scale. Ask one participant to volunteer to be your assistant. If you are using a standing scale, also ask one participant to volunteer to be the caregiver. Introduce the child-sized doll to the group, and ask the group to assign it a gender and age before each measurement.

Step 4: Then have them plot the point on the chart. Do this with different sized dolls or items (gradually increasing in weight) at least 3 times.

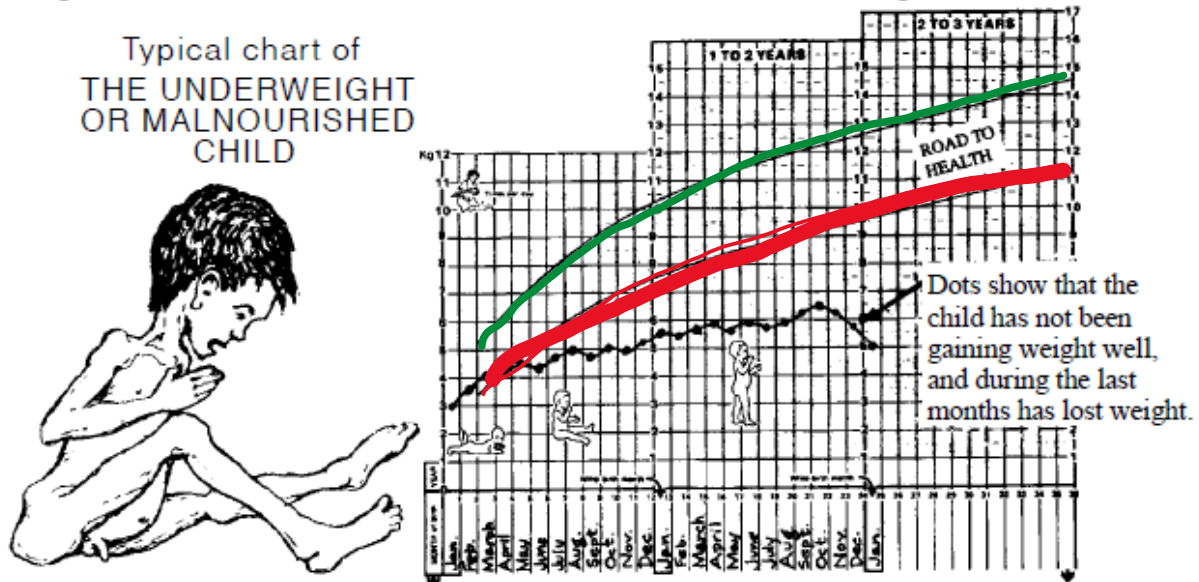
## Lecture: Interpreting Growth Charts

Use the sample growth charts to explain how to read them:



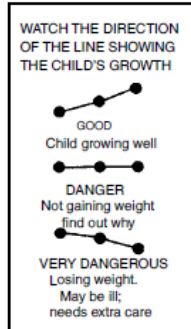
The 2 long curved lines on the chart mark the 'Road to Health' that a child's weight should follow. In most normal, healthy children, the line of dots falls between the 2 long curved lines. That is why the space between these lines is called the **Road to Health**. If the line of dots rises steadily, month after month, in the same direction as the long-curved lines, this is also a sign that the child is healthy.

**A malnourished, sickly child** may have a chart like the one below. Notice that the line of dots (his weight) is below the Road to Health. The line of dots is also irregular and does not rise much. This shows the child is in danger.



### Key Content

Key trends to watch out for:



Even if the dots are within the curved lines. Make sure you watch the direction of the dots. If it is not increasing then it could be that the child has not been gaining weight

There is a sharp decline or incline in the child's growth line. Meaning that they could be losing weight, may be ill and might need a referral.

Even if dots for a child are below the 2 curved lines, if there is an upward curve then it shows that the child is growing.

Key milestones on the chart:

6 to 8 months	Sits without help
12 to 16 months	Walks without help
11 to 18 months	Single words
Third year	Short Phrases

These growth charts are important because when used correctly can tell mothers know when their children need more nutrition and extra care.

It also helps highlight the needs of the family

## Discussion: The role of CHWs in Promoting Nutrition

Ask participants to brainstorm the role that the CHW plays in preventing, detecting, and ensuring proper treatment of malnutrition. Keep a list of participant responses on a large piece of paper or chalkboard.

Make sure all of the points below are mentioned during the discussion

- Detect malnutrition early through monthly MUAC measurements of children between six months and five years
  - o Refer children with MUAC <125 mm to the appropriate treatment program
- Counsel caregiver on exclusive breastfeeding for the first six months
- Counsel caregiver on good nutrition and feeding practices for children under five
- Counsel caregiver on handwashing with soap and food and water safety
- Follow up:
  - o moderate acute malnutrition (MAM) children every two weeks
  - o severe acute malnutrition (SAM) child every week
- Ensure that household members are able to receive treatment on time
- Track the growth of the child

### Review Job Aids

Allow the group to review the **UNDER 2: ROUTINE CARE** and **UNDER 5: ROUTINE CARE** job aids, and **FEEDING YOUR CHILD BETWEEN 6 MONTHS AND 2 YEARS, FEEDING YOUR CHILD BETWEEN 2 YEARS AND 5 YEARS, UNDERSTANDING MALNUTRITION**, and **NUTRITIOUS FOOD AND DIET DIVERSITY, MEASURING LENGTH AND WEIGHT AND MEASURING WEIGHT** counseling cards for a few minutes. Answer any questions they may have.

### Review Key Messages

- *Why is it important to monitor a child's growth?*
- *Why is a proper nutrition important for a household?*
- *What does a nutritious diet consist of?*
- *What is your role as a CHW in promoting proper nutrition for children?*