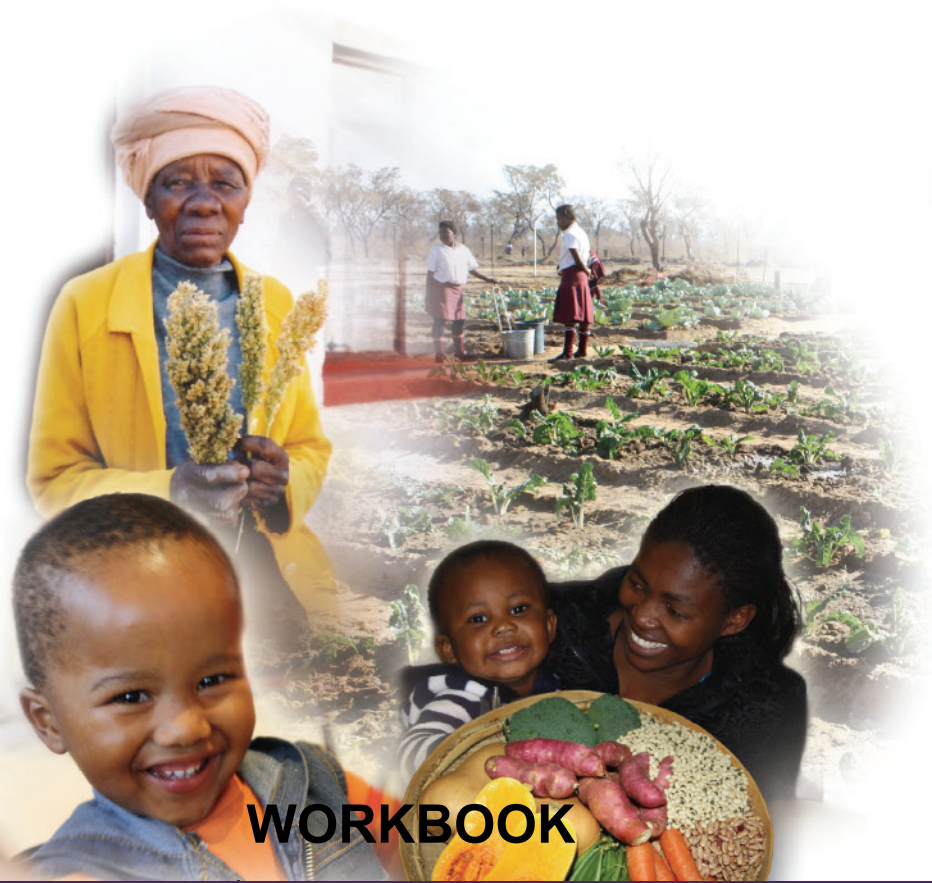


Module 4

Food Behaviour and Nutrition

Module code: PHFS04N



Student Name:	
Student Number:	
Cell Number:	
Name of Promoter:	
HFS Site / Centre:	



Although you have been given some back ground on the workbook in the assessment section of TUT301 you received, we would like to repeat that information here to avoid any misunderstanding.

By now you will be aware that your study guide contains a variety of learning activities. Some of these activities have been selected to deepen your understanding of the main topics dealt with in the module and are called *workbook activities*. How will you know which activities are workbook activities? We use a specific icon in your study guide, which clearly shows which activities need to be done in the workbook. You can see an example of the icons we use in this programme in the introduction to Module 4. The same numbers have been used for the activities in the study guide.

You will need to complete the workbook activities in the workbook provided **for each of the six modules** that make up this programme. You will either do these activities by yourself or in a group with other students in your area. Although most of you will discuss the activities in your group, the idea is not to copy the answers provided by others, but rather to compile your own answers after discussion with your fellow students. If you do not have a group to work with, this is not a major issue. However, please do not ignore the activities which indicate that they are group activities. They are so designed that you can do any of the group activities on your own. We only suggest that you work in groups, if possible, since group-work often leads to meaningful discussion and critical thinking.

Take your workbook, with its completed activities, to the tutorial-facilitated sessions, where you will be given an opportunity to reflect on some of them with your tutor.

Note: Your tutor will award a mark on completion of the workbook, which makes up 10% of your final overall assessment mark.



Activity 1.1 Identify the food security dimensions and nutritional health issues using a case study

Aim: Identify the food security dimensions and their impact on health in the case study below.

Time: 30 minutes

What to do

Read the case study below and for your answers identify the food security dimensions referred to in the case study and describe them below.

Family life of households in a rural village in Limpopo

This is the reality of family life in a rural village in Limpopo, situated about 30km from the nearest town. The people in this village are poor, with the unemployment rate as high as 52%. About 48% are dependent on social grants and migrant labour. Most of the young people have migrated to urban areas in search of work and many of the grandmothers are now caring for their grandchildren. The average size of the households is 6 and the number of houses in the village is 450.

There are no large shops or supermarkets and most food is bought in town at the end of the month. Health services at the village are poor, with a mobile clinic only visiting the village once a month and therefore sick people have to travel to the hospital in town at great expense.

Very few of the households have livestock, but up to 95% try to plant vegetable gardens. The vegetable harvest from these gardens is very limited. The vegetables that are planted provide enough vitamin A and vitamin C only if the garden produce is combined with purchased food. In fact, 48% of the households purchase foods from town and the money for that is primarily from income generated outside the village.

The main limitation for successful production of vegetables is the lack of a reliable source of water for irrigation and for drinking water. The village does have a community borehole with a diesel pump that transfers water into a small cement dam, which then supplies

water to stand pipes or house taps. However, on many occasions the taps and some of the standpipes were stolen or there is no water since the diesel pump is either without fuel or is broken. The community has not been able to organise a system or a water committee who can make suggestions on how diesel can be bought and paid for and also to select someone to be trained to maintain the pump.

There are other water sources such as a river and a spring, but both are contaminated by animals and humans and therefore not safe for drinking. To access this source, the women have to walk quite a distance and carry heavy 25 litre containers. Therefore sometimes women have to buy water from others who have their own bore holes, paying up to R15 for 25 litres (in 2006). Not all women understand that this water is not safe for drinking or food preparation and many do not cover the buckets of water. Although some of the women have heard about grey water and try to use grey water for irrigating their gardens, even this is not enough.

The vegetable harvest from these gardens is very limited. The vegetables that are planted provide enough Vitamin A and Vitamin C only if the garden produce is combined with purchased food. In fact, 48% of the households purchase foods from town and the money for that is primarily from income generated outside the village.

The women in this village are very unhappy and see no short or long-term solutions to solving the real life issues in their community. A new and better future for the village looks hopeless.

However, if the community can be mobilised to work together and support each other, solutions can be found. The drilling of more bore holes, maybe paid for by government and will make a huge difference.

This picture of how households in a rural village have to cope with so many problems illustrates how difficult it can be to live a healthy life with limited money and clean water.

Identify the different food security dimensions and link them to the related nutrition and livelihood issues.

1. ***Natural and socio-cultural environment***

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2. Availability of sufficient and nutritious food

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3. Access to food sources

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4. Utilization of food

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5. Stability of food

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**Activity 1.2 Meaning of the concepts used in the household
food security life situation**

Aim: Revise the concepts you learnt in Module 1. Later on in the module you will need to assist households to explain in their own words their situation and their issues related to food security and nutritional risk. You can practice this in your class groups by asking each other the following questions. Answer the questions in your own words. You can also use the Glossary to help and use your Logbook to make notes.

Time: 45 Minutes

What to do

1. What is the meaning of food, security and food insecurity?

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2. What is the meaning of good nutrition, malnutrition and hunger?

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3. What is the meaning of a livelihood, livelihood strategies and assets?

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4. What is the meaning of risk, vulnerability and shocks?

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Activity 1.7 Factors affecting the nutritional health of households in Ndunakazi village

Aim: The aim of this activity is to make you aware that different factors affect people's nutritional health

Time: 30 minutes

What to do

Carefully read part 1 and part 2 of the Ndunakazi case study then do the tasks that follow.

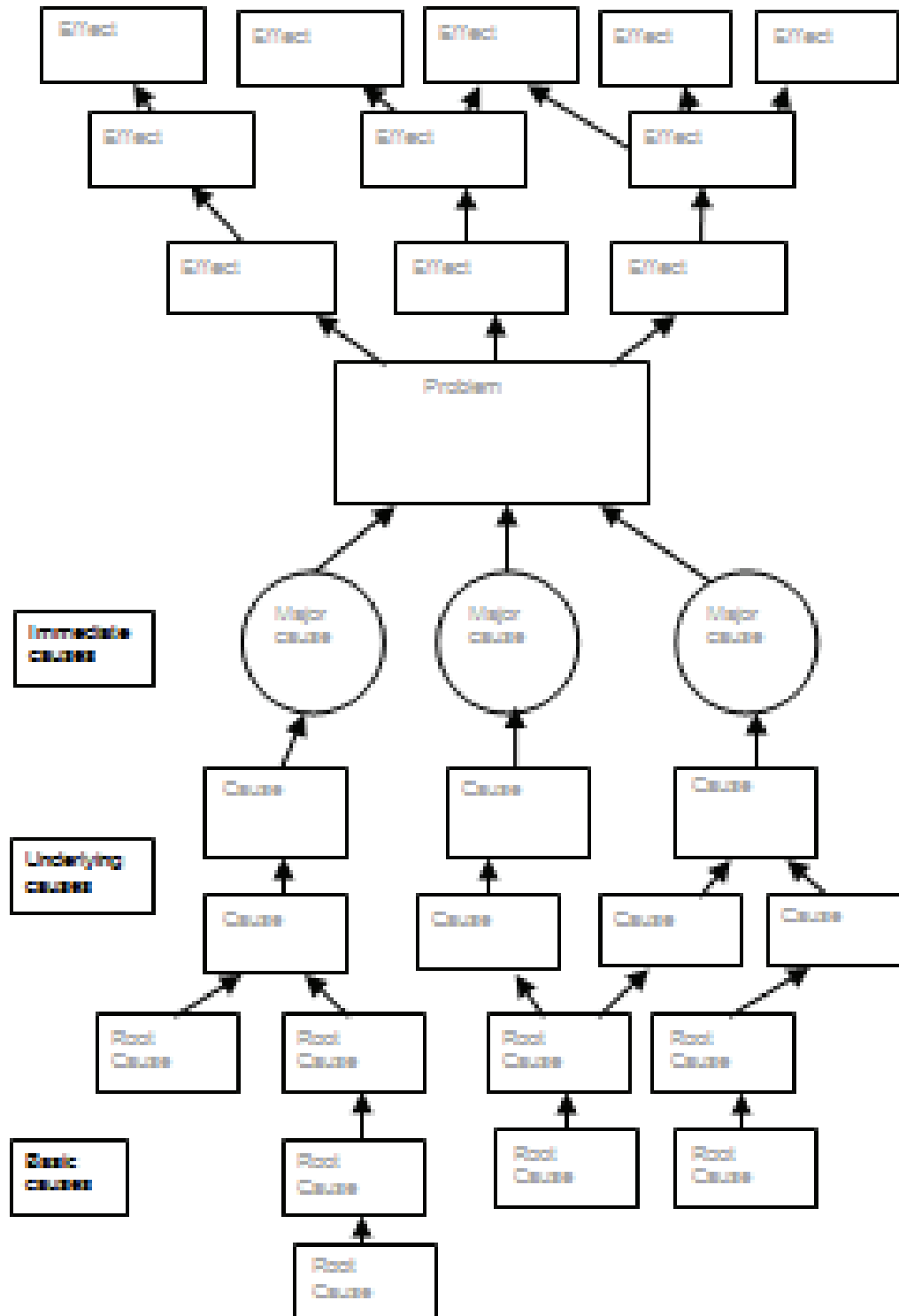
Ndunakazi case study: Part 2

In part 1 of the Ndunakazi case study we described how the caring capacity of the mothers was compromised. The environment in which they lived and their access to health care services further compromised the children's nutritional health.

In 1994, the living condition and access to health care services in Ndunakazi were as follows:

- There were no taps in the area. Drinking water was obtained mostly from the Umgeni River, which was badly polluted at times.
- Approximately one-third (38%) of the households had access to a pit toilet, while 62% had no toilet facilities.
- Garbage was usually dumped and then burned.
- Because of the lack of adequate toilet facilities and limited access to safe water, diarrhoea was one of the biggest health problems affecting children in the area.
- There were no fixed health facilities in the area. A mobile clinic was scheduled to serve the area once a month. Some people had negative feelings towards the mobile clinic because of the irregularity of the service, the impatience of the clinic staff, and the long distances they had to walk to reach the service point.
- The poor transport system and poor condition of the road made it difficult for the people to attend the nearest clinic that was approximately 18 km away.
- Children attended the clinic mainly for immunisation, and most children were weighed on immunisation dates only.
- In this village, 78% of children below the age of six months and only one-third of children aged three years and older were in possession of a Road-to-Health (RTH) card.





Consult the food security mal nutrition framework. Use a similar framework format to arrange the causes and effects you have identified.

Tips:

To find the causes: Ask but why?

To find the effect or consequence: Ask if then?

1. What is the main problem?

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2. Which factors relate to the immediate causes of malnutrition?

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3. Which factors relate to the underlying causes of malnutrition?

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4. Which factors relate to the basic causes of malnutrition?

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6. What are the effects or consequences of the problem and its causes?

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Activity 2.2 Filling in a growth chart

Aim: To complete a growth chart for Sipho.

Time: 20 minutes

What to do

1. The empty chart below shows 3 reference curves. It is an example from India without the fourth curve for the reference for overweight.
2. Using the information in the table below plot the points showing baby Sipho's growth over the first 6 months on the growth chart below.

Age in months	Weight in kilograms
At birth	2.8
1	3.6
2	4.2
3	4.6
4	5.5
5	6.2
6	6.8

3. Give your own interpretation of the information you plotted on the growth of Sipho.

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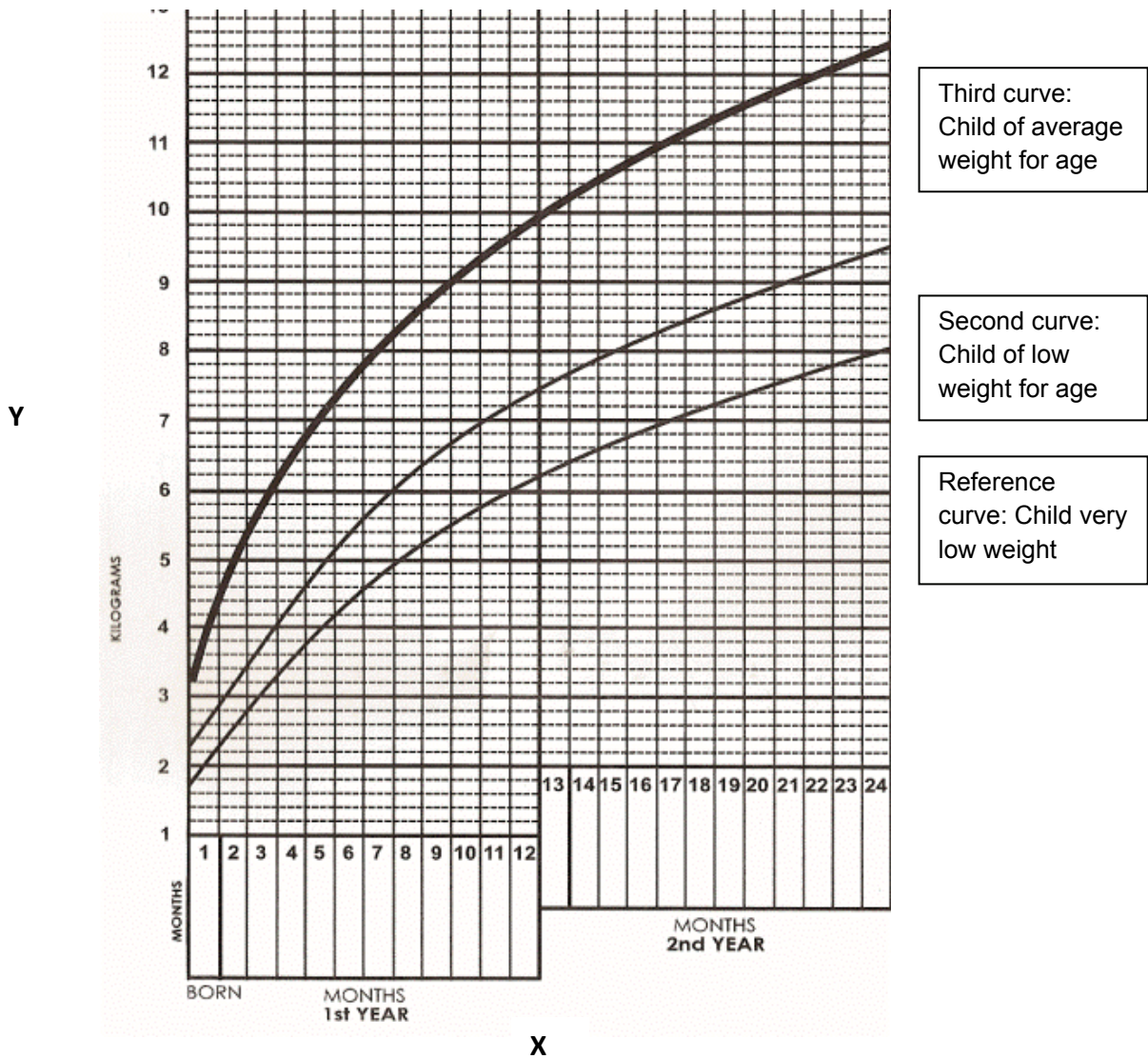
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Growth Chart of Sipho Sibandla: The first six months

Activity 2.3 Understanding the downward spiral of malnutrition and infection

Aim: To understand why it is a spiral as opposed to a cycle on malnutrition and infection leading to death

Time: 20 minutes

What to do

Study the diagram in Figure 2.10 carefully and then answer the following questions.

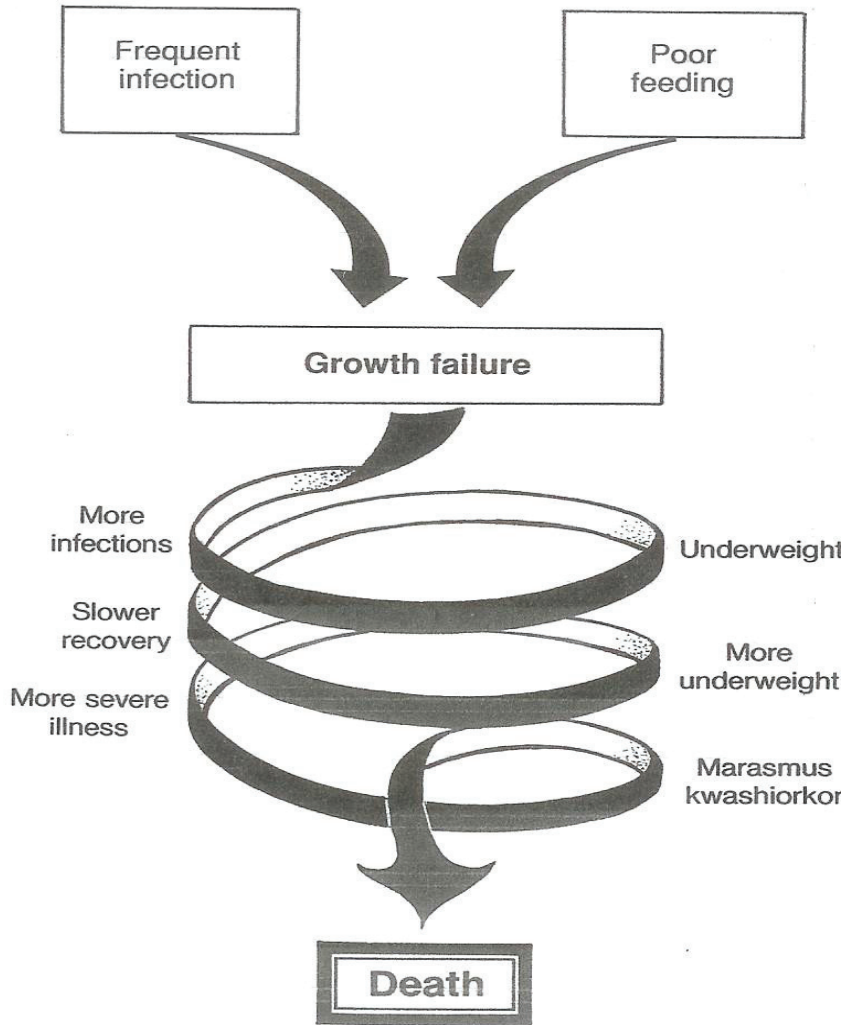


Figure 2.10 The downward spiral of Malnutrition and Infection

1. Why does the heading for Figure 2.10 refer to a spiral and not to a cycle?

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2. Explain the spiral of infection and malnutrition in your own words.

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Activity 2.6 Elderly women and indigenous knowledge on African vegetables

Aim: To talk to elderly women and discover their indigenous knowledge on African vegetables

Time: 40 minutes

What to do

1. Speak with an elderly woman in your family or community who successfully grows indigenous vegetables in a food garden.
2. Ask her the following questions and write your answers in the spaces provided in your work book:
3. Why do you choose to grow indigenous vegetables? Give some reasons.

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4. What methods do you use to grow the indigenous vegetables successfully?

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5. Using no more than four sentences explain what you have learnt from the elderly woman regarding the benefits of planting indigenous vegetables in food gardens.

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6. Identify and list traditional practices in regard to indigenous vegetables that led to food availability, accessibility, utilization and stability of food in households in the past.

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Activity 2.7 Visit to practitioners caring for People Living with HIV AIDS (PLWHA)

Aim: To interview partners on their roles and find how a working relationship can be created

Time: 30 minutes interview plus additional time for making contact and appointment

What to do

Answer the following questions in your work book.

1. Select any three of the following sites to visit, make an appointment if necessary:
 - Visit the local health clinic,
 - A NGO working with PLWHA,
 - A care giving centre
 - The social work office in your municipality or ward.

Which ones did you elect to visit?:.....

2. Ask permission to ask a few questions about the practitioner’s role in terms of their work related to caring for PLWHA.

Who did you ask?

Was permission granted?

3. Who did you visit, organisation and what are their daily duties?

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4. Which food, nutrition and health related tasks are included in their role/job?

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5. Do the PLHWA visit them at the clinic or at counselling rooms?

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6. Do they visit the PLHWA in their homes and how often?

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7. Do they offer or carry out any care giving at home of the PLHWA?

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8. Do they work with orphans and what is their role?

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9. Do they experience their work to be stressful and how do they cope?

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10. Do they work on certain tasks as a team? Name them.

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11. Does their work provide satisfaction? Give reasons or examples.

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12. What role could you play in providing assistance or support given as a food security facilitator?

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UNIT 3

Activity 3.1 - What food choices do you make?

Aim: To determine what sort of food choices one makes over a period of 7 days by keeping a record of food behaviour

Time: 10 minutes every day over a 7 day period

What to do

1. Each day for 7 consecutive days make a list of foods you have eaten for that day. Make sure to also note how many times you ate each food. Capture the information in the table provided below.
2. Then answer the questions that follow:

Questions

1. Which foods did you eat most often?

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2. Do the foods you eat on weekdays differ from the foods eaten over weekends? Explain

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3. Were the foods eaten at home or outside the home? Explain.

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4. List your reasons for making these food choices or why the food care giver in your household made these choices.

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My seven day food behaviour record.....

	Early morning	Midmorning	Mid day	Mid afternoon	Evening	Late evening
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						
Day 6						
Day 7						

Activity 3.5 - Which vegetables and fruit are available in your local shops?

Aim: To determine the availability of nutritious vegetables and fruits in your local shops

Time: 2 hrs

What to do

1. Carry out a quick survey to find out which vegetables and fruit (fresh and processed) are on offer in the shop or shops in the area in which you live.
2. Record what you observe in the table below.

Fruit/vegetables easily available	Fruit/vegetables sometimes or seasonally available	Fruit/vegetables not available

Questions

1. Name the shops you visited. What type of shops are they? (Supermarket, Fruit and Vegetable shop, Spaza...)

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2. Which shop(s) has/have a large supply of fruit and vegetables on a regular basis?

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3. What is/are the reason(s) for some fruits and vegetables not being available in the shops?

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4. What is/are the reason(s) for some fruits and vegetables being readily available in the shops?

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Activity 3.9 – Which type of foods belongs in which nutrient category?

Aim

To help participants learn and clarify which types of foods belong in which nutrient category.

Time: 60 minutes

Materials:

- at least 60 small pieces of paper,
- four large pieces of paper for the flip chart,
- marker pens or crayons.

Instructions

1. Give each participant at least two small pieces of paper. Ask them to write the name of an ingredient on the piece of paper.
2. Explain that the ingredient can be an animal product such as beef, a vegetable such as a carrot, a plant product such as peanut butter, a piece of fruit such as a mango, a grain such as sorghum or a legume such as cow pea.
3. Explain that they must not write already mixed ingredients on one piece of paper such as umnqusho and stew.
4. Collect all the pieces of paper and mix them up together in a basket. Meanwhile write the names of the different nutrient groups on the four large pieces of flip chart paper. Lay the pages on the floor in the centre of the room.

5. Ask each participant to take two small pieces of paper from the basket.
6. 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.
7. Ask the rest of the group to say whether they are correct.
8. Reflect on the results of the group's activity.

List the food ingredients as arranged on the six flip chart sheets under each nutrient group

Protein

Carbohydrate

