Unit 2



Nutrition of the vulnerable during the lifecycle

Introduction

Gabriele Mistral, the Nobel prizewinning poet from Chile said the following in her poem 'The Child's name is Today.'

"We are guilty of many errors and faults, but our worst crime is abandoning the children, neglecting the fountain of life. Many of the things we need can wait. The child cannot. Right now is the time his bones are being formed, his blood is being made and his senses are being developed. To him we cannot answer "Tomorrow". His name is *Today*."

(Adapted from Positive Deviance/Heart Resource Guide)

Reflect for a moment on the message of the poem. Young children have the best chance of growing and developing normally when they have a loving family, a clean safe home, enough nourishing food and safe water. They also need encouragement and opportunities to play and learn as well as protection from infections and accidents and health care when they fall sick.

We, who work as facilitators in communities and households, have a responsibility to enhance awareness of the needs of children. Not only children however, but also pregnant women, the elderly and people with diseases such as HIV/AIDS. These groups of people are particularly vulnerable to malnutrition and need special care to ensure a good balanced diet.

Our focus in this unit will therefore be on the food needs of people in the different stages of their lives and how to address these needs in a way that will be sustainable.

This unit has the following sections

- 2.1 What is good nutrition during pregnancy?
- 2.2 What is good child nutrition?
- 2.3 What is good nutrition for the elderly?
- 2.4 What is good nutrition for people living with HIV/AIDS?



Learning Outcomes

The table below shows the learning outcome and list of assessment activities for this unit. A time estimate is shown for each activity. This helps you to plan the use of your time. When you have completed the activities write down the actual time you spent.

Learning outcomes	Assessment Activities	Actual time spent
Explain good nutrition practices during pregnancy. Explain good child nutrition practices Explain good nutrition practices for the elderly	Workbook activities 2.2 Filling in a growth chart (0.5hr) 2.3 Understanding the downward spiral of malnutrition and infection (0.5hr) 2.6 Elderly women and indigenous knowledge (1.5 hrs) 2.7 A visit to practitioners caring for People living with HIV/AIDS (3hrs) Portfolio activities 4.2 Developing a Malnutrition Problem Tree	
Explain good nutrition practices for people living with HIV / AIDS and other diseases effecting the immune system	Assignment Assignment 1: Information for this assignment is contained in Tutorial Letter 101. (Spend 2hrs on Assignment 1)	
Reflect on possible actions for intervention		

Key Concepts

Complementary feeding	Infant	School food gardens
Dehydration	Life stages	Supplements
Diarrhoea	Normal growth	Weight loss
Exclusive breast feeding	Nutrition cycle	School Nutrition
Growth monitoring	Poor growth	
Immunization	Rehydration	



Start-up activity

Look at the differences in food needs of members of the household in the different life stages of the life cycle that are shown in Table 2.1. Note that only healthy foods for healthy families are indicated. Do active young members of a household have the same food needs as old people? Do young babies and toddlers have the same food needs?

Table 2.1 Different food needs of different members of the household

Life stage	Food needs of people in different life stages
Elderly	Elderly people need at least two and possible more meals each day as they may not eat much at each meal. They need fewer Kilojoules (calories) than younger people, but the same amount of protein and other nutrients. Women who are older than childbearing age need less iron. Old people may need soft food. mature
Men	Men need at least two mixed meals everyday and some snacks. They can get enough energy from a few large meals and bulky staple foods.
Women	Women need at least two mixed meals every day and some snacks. If they are pregnant or lactating they almost need as much food as men - especially if they are also doing hard physical work. They need much more iron and folate than men especially when they are pregnant.
Adolescents	Adolescents need at least two large mixed meals and some snacks each day. They can eat bulky food. Boys need a lot of kilojoules (calories). Girls need plenty of iron. Pregnant adolescent girls are still growing so they need more food than pregnant women.



School-age children	School age children need at least two to three mixed meals and some snacks each day.
Children 1-5 Years	Children of 1 to 5 years of age need breast milk until they are at least 2 years old. They need at least three mixed meals and two snacks each day. They cannot eat large bulky meals. It is especially important for meals to be clean and not to contain parasites or micro-organisms that could cause diarrhoea or other infection
Babies 6-12 months	Babies of 6 to 12 months need breast milk 8-10 times or more a day. They need small meals, which are not bulky, 3-5 times a day.
Babies under 6 months	Babies under 6 months need only breast milk at least 10 times each day

(Adapted from King and Burgess 1995)

Questions

1.	What will happen if the different food needs of the different members of the household are not met?
2.	Write a sentence to clearly explain the reason for the following:
•	Why men need at least two mixed meals with bulky foods:
•	Why women need as almost as much food as men if they are pregnant:



•	Why girls who are pregnant need plenty or iron :
•	Why children 1-5 years should consume clean and healthy food:

Commenting on the start-up activity

A healthy family needs different types and amounts of food at every stage of development. We call these stages of change, the lifecycle. During the lifecycle, each individual member of the household will have specific nutritional needs, for example, the nutrients needed for normal growth and development of a baby is different from the nutritional needs of pregnant mothers or people with chronic diseases such as HIV/AIDS and Tuberculosis (TB).

You are aware that some solutions to community problems such as malnutrition already exist in communities and households and just need to be discovered. In unit 4 when you work with households, you will get an opportunity to tap into this local wisdom and enhance it with the knowledge and skills concerning the food needs of the household members you acquire in this unit.

2.1 What is good nutrition during pregnancy?

Good nutrition is essential for good health before, during and after pregnancy. In developing countries, good nutrition is not always possible, with food either not accessible or affordable. Often, a poor, pregnant woman will have to work very hard right up to her time of giving birth. If her diet is poor, she will not gain the crucial weight necessary for proper growth of her baby or she may even lose weight. Weight loss will badly influence the growth of the mother and that of the unborn baby. Furthermore, if the mother is poorly nourished, the baby can be born with a low birth weight that can contribute to its poor growth and development after birth. During conception and the subsequent weeks afterwards is the time when a developing foetus is at its most vulnerable, because this is the time when its organs and systems develop. The energy used to create these systems comes from the energy and nutrients in the mother's blood and is the reason why correct nutrient intake during pregnancy is so important.¹



¹ http://en.wikipedia.org/wiki/Nutrition and pregnancy

2.1.1 What extra nutrients does a pregnant mother need?

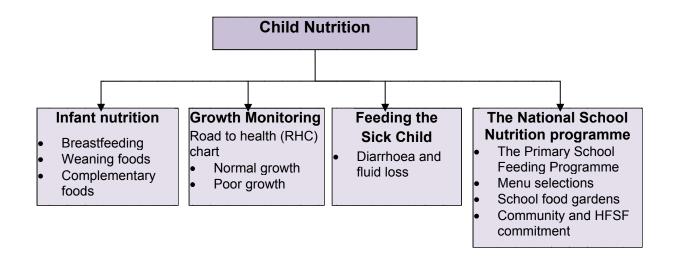
During pregnancy, extra nutrients are required for the baby to grow and to prepare the mother for breastfeeding. Three of the important nutrients for pregnant women are the vitamin called **folate** and the minerals **calcium** and **iron**.

- **Folate** is a B vitamin that is essential for cell growth and reproduction and will prevent birth defects such as abnormal development of the brain and spine. The need for this vitamin doubles during pregnancy as the unborn baby develops its systems. The best sources of folate are dark green leafy vegetables, and also legumes and organ meats.
- **Iron** is needed to grow new blood cells and new tissues and is also found in inexpensive organ meats, for example liver.
- **Calcium,** the other mineral that is needed in large amounts is a body building mineral and is vital to develop bones and teeth (see unit 1). **Calcium** can be obtained from milk and milk products such as amasi cheese, and yoghurt.

Home food gardens can play a critical role in providing certain of the extra nutrients needed during pregnancy, and fruit containing vitamin C will help to absorb the iron from meat.

2.2 What is good child nutrition?

In this section we will address a number of important topics and you can see what they are in the mind map below.





2.2.1 Infant/ Baby Nutrition

An infant or baby is defined as a very young human being, from birth to somewhere between six months and two years of age, needing almost constant care and/or attention. For normal growth and development infants have specific feeding needs.

Breast Feeding

International organizations advise that a baby under 6 months of age should be fed only with breast milk. This is called **exclusive breastfeeding**, which means that no other food or water or juice should be given to the baby before 6 months of age. The reason for exclusive breast feeding is because infants cannot yet digest other foods. Only after 6 months should other weaning or complementary (additional) foods be added to the daily breast milk. Breast milk is not only a highly nutritious food, but breast milk also contributes a 'free' source of food for the infant. What nutrient contribution does breast milk make?



Figure 2.1 Exclusive breast feeding up to six months is the best

BOX 2.1 Breast milk

Breast milk is highly nutritious and will provide all the nutrition needed for a baby, who under 6 months of age cannot yet digest other foods. During pregnancy, the mother will start producing chemicals in her body called hormones that will enhance the production of breast milk directly after birth. Right after birth and before breast milk appears, a watery light form of milk is produced, called **colostrum** or **foremilk**. It is important that the baby is fed this colostrum directly after birth, because it will provide the baby with essential immune substances to fight infections, since a baby at birth will not have a fully functional immune system.



After 2-3 days, breast milk will be produced and this alone will provide the baby with enough carbohydrate, protein, fat, and also vitamins, minerals, digestive enzymes and hormones - all of the things that a growing infant will require.

The nutrient content of the milk will be drawn from the mother's own food supply. It then follows that, if this supply is not available, the nutrients will be drawn from the mother's body. Pregnant women must therefore eat a healthy, balanced diet throughout her pregnancy and after child birth in order to provide nutrition for her growing baby.

How can a breast feeding mother obtain the increased amount of nutrients she requires to keep her and her baby well-fed? The increased nutrient requirements for the breast feeding mother can be provided at low cost with vegetables from home food gardens.

What foods need to be introduced to a baby's diet after 6 months of age?

Weaning or complementary feeding

Weaning is the process of gradually introducing an infant to what will be its adult diet and gradually withdrawing the supply of its mother's milk. This is done because exclusive breastfeeding after 6 months of age will not provide the infant with all the nutrients essential for healthy growth and development. Complementary feeding involves the infant being fed both breast milk and solid or semi-solid food, this may include any food or liquid including non-human milk². From 6 months of age, infants can digest starchy or carbohydrate-based foods such as thin porridge. At this time, complementary or weaning foods should be slowly added to breast milk, with breastfeeding continuing for as long as possible, preferably up to one year.

It should be noted that there sometimes is confusion about the meaning of the word "weaning". Some people think that weaning means 'stopping breastfeeding'; others think it means 'the period during which the child changed from having only breast milk and gradually introduced family foods. It is actually better to use the term complementary feeding to avoid confusion. However, we will use the word 'weaning' here.

Activity 2.1 Weaning or complementary foods

Different culture groups use different weaning foods.

Complete this activity in your study guide.

² www.health.qld.gov.au/breastfeeding/about_breastfeeding/glossary.asp

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What to do

Answer the following questions in the space provided.

kn	What weaning foods does your culture group use? If you don't know, find out from a owledgeable person.
2. inf	What is the amount and consistency (thickness) of the weaning foods fed to ants?
3.	From what age are the weaning foods implemented?
4. pro	What is the nutritional value of the weaning foods in terms of vitamins and minerals and oteins? (You can come back to this answer after doing Unit 3)
	ommenting on activity 2.1 developing countries, and especially in SA, the first weaning or complementary food is

In developing countries, and especially in SA, the first weaning or complementary food is usually a thin, semi-solid porridge made from the family maize meal porridge. The dilution of the bulky, thick porridge is essential since the baby is unable to swallow thick foods at this age. However, by adding water, the porridge is less nutrient-dense and therefore lower in energy. (Consult the glossary if you have forgotten what nutrient-dense means).

What can be done to increase the energy content of the diluted porridge? Extra energy in the form of oil, margarine or peanut butter must be added in small amounts to the diluted porridge. This will provide enough energy for normal growth. However, not too much oil should be added, because too much energy can lead to over-nutrition and an overweight baby.

As the infant grows and develops, more solid food must be added, to provide extra protein, minerals and vitamins. Vegetables, especially green leafy and orange fleshed foods rich in vitamins C and A as well as minerals such as iron, can now be added to the thin porridge.



These vegetables should be in a semi-liquid or mashed form, until the child can chew small pieces of fruits and vegetables.



Figure 2.2 Young children eating food high in Vitamin A at the growth monitoring clinic

When preparing weaning foods, great care is necessary to keep it safe from contamination by bacteria. Contaminated weaning foods can cause dangerous infections such as diarrhoea. Good complementary/weaning foods:

- are rich in energy, protein and micronutrients, especially iron, and are not watery (i.e. are thick and not thin porridges);
- are easy to prepare;
- are easy to eat and digest;
- are hygienically prepared and fed;
- contain no bones or hard pieces that might cause choking;
- are not too spicy or salty as too much salt is bad for children;
- are easy to prepare and inexpensive to plant or buy.

2.2.2 Growth Monitoring of children

In South Africa the most common growth problem is not severe malnutrition but rather that of **chronic malnutrition** or **stunting**, which effects on average 25% of children. This poor growth is the result of consuming a diet of insufficient protein and energy and with a poor micronutrient quality. Poor growth can of course also be caused and increased by illness such as diarrhoea as discussed earlier.

Mothers/caregivers are advised to take their infants to primary health care clinics for regular check-ups. Health care staff will monitor the child's development and growth. **Developmental screening** is done as a routine during clinic visits for immunisation. Screening for developmental disability occurs three times when the child is:

- between 0-6 weeks
- 9 months
- 18 months old.



The child is physically examined and observed. The screening test helps to monitor physical and psycho-social development. The tests evaluate whether the child is growing appropriately for their age and checks on developmental milestones such as sitting, standing, crawling, walking, talking and handling objects. The child's vision and hearing ability is also checked.



Figure 2.3 A healthy child that is regularly checked for developmental milestones

Growth Monitoring forms the basis of comprehensive child health care. It includes the regular measurement of weight (and sometimes length) of the child. Weighing starts at birth and continues until the child is five years old. Ideally the child's weight must be measured once a month until the age of two years and then three times a month until the child is five years old.

The clinic sister enters the baby's weight on the **Road to Health Card**. The weight is also checked against the growth chart to see if the weight falls within the acceptable range for the child's age. If the child is underweight, food supplements are available at clinics or the child is referred to secondary or tertiary level hospitals.³ The diagram below is an example of a Road to Health Card.

Growth monitoring is beneficial to both healthy children and those showing slow growth. Poor growth can only effectively be identified by growth monitoring over a period of time. Growth monitoring involves weighing young children on a regular basis and provides quick and easy information for early signs of disease or poor growth. In South Africa, most growth monitoring is conducted in local clinics, where trained staff will measure the child's



³ http://www.capegateway.gov.za/eng/directories/services/11495/6409

weight for each specific age. Figures 2.5 and 2.6 illustrate the types of scales that can be used to weigh a child.

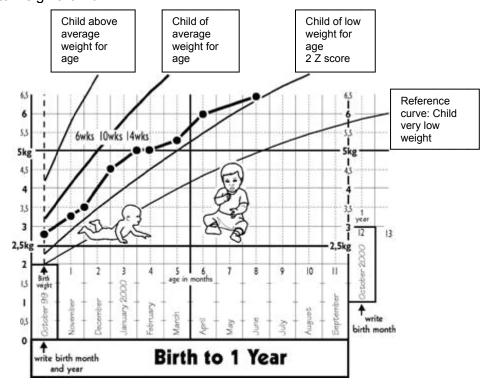


Figure 2.4 Road to Health Card⁴: Child with normal growth

A child who is constantly growing well will be healthy and free of illness. Healthy, well-nourished children grow at approximately the same *rate*. Therefore the rate at which a child grows is a good sign of the child's health and nutrition. Parents or caregivers know that children are growing because they see them becoming taller, heavier to carry and growing out of their clothes. However, parents and caregivers may not know if a child is growing at a normal healthy rate, and need help to find out.

We can make sure that young children are constantly growing well and also pick up early signs of disease, by monitoring their growth. **Growth monitoring** involves weighing young children on a regular basis and provides quick and easy information for early signs of disease or poor growth. Growth monitoring is beneficial to both healthy children and those showing slow growth. In South Africa, most growth monitoring is conducted in local clinics, where trained staff will measure the child's weight for each specific age using a suitable scale. The following two pictures show two types of scale that can be used to measure a child's weight.



⁴ http://www.doh.gov.za/docs/factsheets/guidelines/health/healthchart.htm

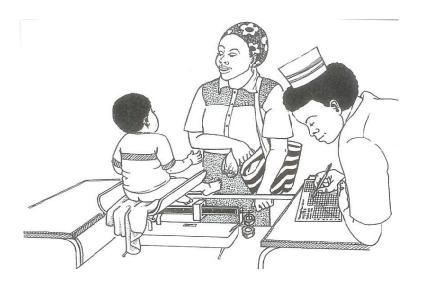


Figure 2.5 The clinic scale for weighing babies

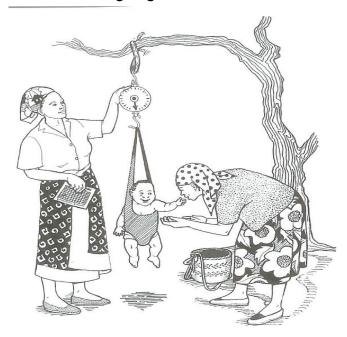


Figure 2.6 The hanging spring scale for weighing babies

The growth information is plotted on the 'Road to Health' charts, and then analyzed and interpreted. Each mother is given this chart for safe keeping at home and is requested to bring it to every clinic visit. Often these clinic visits will coincide with the need for immunization and/or Vitamin A supplementation. It is essential that the baby is taken regularly to the clinic for immunization at very specific times after birth (see detail on Road to Health chart).

Immunization will protect the baby from infections such as measles and diarrhoea. If the children receive these immunizations (also called vaccinations) at the clinic and on



specified ages many of these infectious diseases can be prevented. These immunizations are free of charge at all clinics and community health centres.

Normal growth and poor growth

A once-off weight measurement is not a good indication of growth and so a series of measurements need to be taken over an extended time period to determine growth. The measurements are plotted on a graph and form a curve. Normal growth is shown on the Road to Health chart (RHC) as a weight measure per age and falls within a narrow range.

When a nurse weighs a child, they want to know how the child's weight compares with the reference weight and the range of weights for healthy children of the same age. In order to do this they use charts which have **reference weight-for-age curves** drawn on them. The child's growth curve is compared to the reference curves. A child weighing less than 60 per cent of the reference weight-for-age is considered to be severely malnourished.

Figure 2.7 below shows part of a growth chart from India used for monitoring the growth of children aged 0 to 24 months.

Activity 2.2 Filling in a growth chart

Do this activity in your workbook

The empty chart below shows 3 reference curves.

- The **third line or curve** is that of a child of average weight for their age.
- The second line is that for children who have a low weight for their age.
- The bottom reference curve is that for children who have a very low weight for their age.
- The x-axis (horizontal axis) of the RHC reflects the age of the child in months. The y-axis (vertical axis) represents the child's weight in kilograms.

What to do

• Using the information in the table below plot the points showing baby Sipho's growth over the first 6 months on the growth chart above.



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

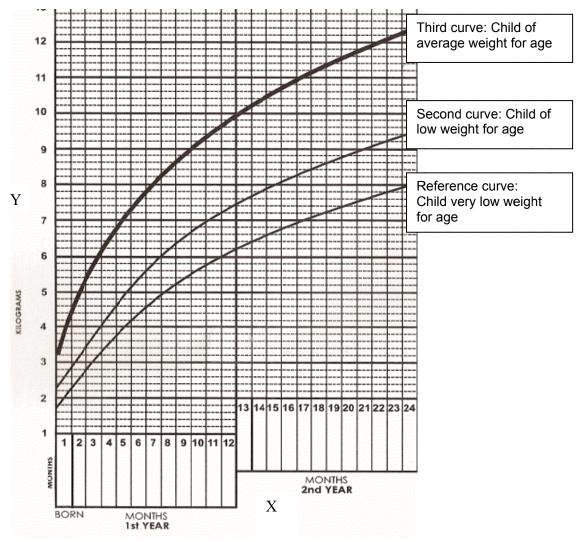


Figure 2.7 An example of a growth monitoring chart from India with only three curves (maximum for overweight has not been added as in RSA).

Note: a South African RTH Char has 4 reference curves on it however this can vary from country to country.



Comment on Activity 2.2

A child's growth curve should follow the same direction as the reference curves already existing on the graph. From the curve you have drawn you should be able to see that Sipho is growing normally for his age.

Sometimes however, a child's growth is not normal and this can be seen from their growth curve. The graphs below reflect the growth curves of 3 breastfeeding babies from birth over a number of months.

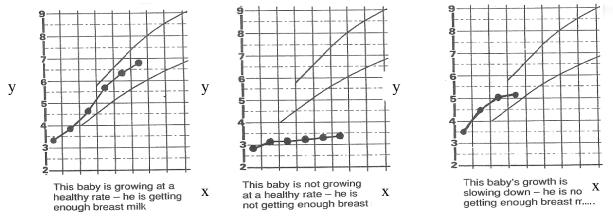


Figure 2.8 The growth curves of breastfed babies and how they are interpreted (Adapted from King and Burgess, 1995)

From the curves it can be seen that baby A is growing normally. However the curve for baby B is relatively flat in comparison to the reference curves, an indication that the child is not growing. Also note that the curve for this child falls below the bottom reference curve showing that the child is probably underweight for their age. The curve for baby C shows that initially the child was growing well but suddenly the curve starts to go down meaning that the child is losing weight. The meaning of each curve and what it means in terms of growth is explained in the table below.

Table 2.2 Growth curves and what they mean with regards to the need for possible interventions

RTH terminology	Definition	What needs to be done
Good growth	If the child's growth curve moves	No intervention is required as the
	in the same upward direction as	child is getting the nutrition
	one of the lines on the chart then	needed to grow normally
	the child is growing.	
Danger signs	If the child's curve is or becomes	Such a child needs help probably
	flat this is an indication that the	in the form of a nutrition
	child has stopped growing.	intervention
Very Dangerous	If the curve is going down this	This is an urgent sign that there is
	means that weight is being lost	a serious problem that needs
	and the child is not growing at all.	further investigation plus a health
		and nutrition intervention



There are advantages of weight for age monitoring of growth. A child's nutritional status, as reflected by weight and is considered to be a good indicator for detecting when growth is faltering (slowing down). The growth curves can be used to detect whether there are growth problems. The early detection of slow growth or weight loss is very important as it indicates that child's diet needs to be changed to ensure a more balanced and quality diet.

Activity 2.3 Interpreting data on RHC of three babies - Beauty, Thembi and Bongani

Do the activity in your study guide

Look at the RTH charts of 3 different babies (Beauty, Thembi and Bongani) that feed exclusively on breast milk, shown in Figure 2.9. Using the information given in Table 2.2 to interpret the growth of the 3 babies based on their RTH Charts answer the questions that follow in the spaces provided.

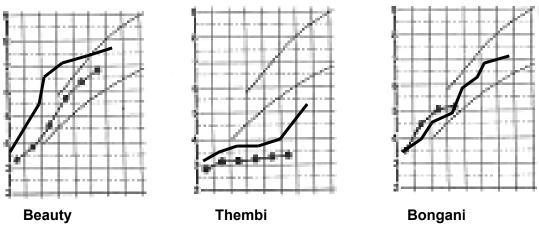


Figure 2.9 Examples of poor and healthy growth Questions

	a nutritional or other intervention for this baby at this time? When will the downwards curve become a concern? Explain your answer.
2.	Based on the chart, what kind of growth does baby Thembi show? Is there any need for a nutritional or other intervention for this baby at this time? Explain your answer



3. Based on the chart, what kind of growth does baby Bongani show? Is there any need for a nutritional or other intervention for this baby at this time? Explain your answer.	
4. How can the RTH chart assist in identifying at vulnerable at risk children that will need special care during disasters?	

Commenting on Activity 2.3

Baby Beauty was initially growing at a fast rate and picking up weight because she was possibly receiving too much breast milk and complementary feeding high in fat. Then when she started to crawl she lost some weight and now shows a healthy growth rate as she is getting enough breast milk. Baby Thembi on the other hand was not growing at a healthy rate and probably she was not getting enough breast milk. Unfortunately baby Bongani was not getting nearly enough breast milk and his growth started slowing down. He would need nutritious complementary feeding in order to start growing normally again. It is important to consult the clinic for the best advice on feeding and growth of infants.

Immunization

Because the immune systems of young children are still under-developed so they need to be immunized against certain childhood diseases that could prove fatal. Immunization will protect the baby from infections such as measles and diarrhoea. If the children receive these immunizations at the clinic at the specified ages many of these infectious diseases can be prevented. These immunizations are free of charge at all clinics and community health centres. It is essential to take the baby regularly to the clinic for immunization (also called vaccination) at very specific times after birth.

Not only are children weighed and immunized during clinic visits but they can also be given **Vitamin A supplementation** (see the glossary). You can see the detail of these times on the *Road to Health* Chart. There is now extensive evidence that vitamin A deficiency (VAD) is widespread in young children in many developing countries and that this deficiency substantially increases a young child's risk of death. Because vitamin A deficiency is common among babies and children they should receive Vitamin A capsules at specific intervals, such as every 6 months. Unfortunately many mothers and even nurses do not know and understand enough on how valuable Vitamin A supplementation is.



High-dose vitamin A supplementation (VAS) is one of the strategies used to combat vitamin A deficiency and in the past was usually considered to be a short-term deficiency control measure. However, it is currently argued that vitamin A supplementation is a sustainable public health intervention for child survival, and should not be seen as a short-term measure. The effect of VAS has primarily been associated with a reduction of diarrhoearelated mortality. VAS has been extensively documented to decrease overall child mortality (deaths) by about 30%, while the mortality reduction in hospitalized children with measles was reported to be in the region of 60% on average.

The Poverty and Human Rights report of the South African Non-Governmental Organizations Coalition (SANGOCO) in 1998 found that there was a general lack of understanding and awareness by people of their socio-economic rights, which include food and nutrition. The right of children to basic nutrition in the South African Constitution can be directly linked to the right to information of their caregivers. The need to educate the public of their rights in general and the right to food and nutrition in particular are therefore of equal importance. ⁵

2.2.3 Caring for the sick child

Before we give attention to how a sick child should be fed, it is necessary that you understand that weight loss in children can also be triggered by infections such as diarrhoea, TB and malaria. In the previous unit you learnt about malnutrition. Malnutrition and infection are closely linked often contributing to poor growth and development in children. How are these two factors linked?

The downward spiral of malnutrition and infection

Why do infections cause weight loss? There are several reasons. For example:

- Infections reduce the child's appetite.
- Some infections make eating difficult.
- Infections cause the breakdown of fat and muscle in the body.
- Infection reduces the absorption of nutrients from the child's gut.
- The body also experiences increases in metabolic demands and uses more nutrients to fight infections.

These factors cause the body to become malnourished and making the child more susceptible to further infections and further malnourishment. Often children suffering from frequent infections may not have time to regain the weight they lost during a previous infection and this leads them to become malnourished. This is referred to as the *downward spiral of malnutrition and infection*. (King and Burgess, 1995)

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⁵ http://www.sajcn.co.za/index.php/SAJCN/article/viewFile/229/231

Activity 2.4 Understanding the downward spiral of malnutrition and infection

Complete the following activity in your workbook

What to do

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

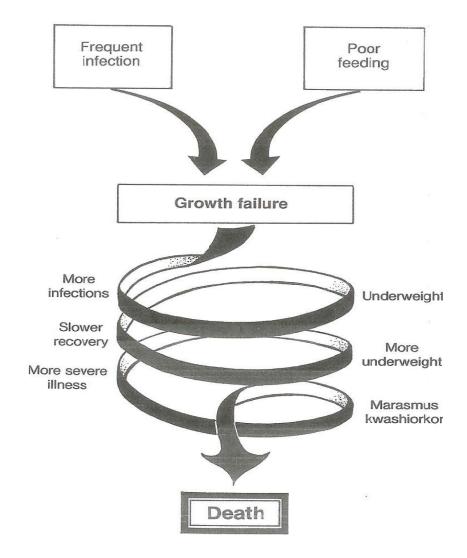


Figure 2.10 The downward spiral of Malnutrition and Infection

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



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

Comment on activity 2.3

When a child is exposed to poor feeding and at the same time suffers from frequent infections they will fail to grow normally and will lose weight. They become susceptible to more frequent infections usually resulting in further weight loss and the development of nutritional deficiency diseases such as marasmus and kwashiorkor. If this situation goes on for a long time the child becomes sicker and weaker, and can eventually result in death.

If a child becomes sick and starts to lose weight how should we take care of the child? Before you as a facilitator will be able to help the members of a household to take care of a sick child, it is important that you gain certain knowledge immediately. As you spend time with the household you will learn more. What important knowledge and skills do you need to acquire before working with households?

Caring for a sick child can be a heavy burden when the mother has very little knowledge about how to recognize the problem and what to do. A child can become seriously ill within days requiring prompt (very quick) action by the mother or caregiver. In rural and poor areas where the caregiver and sick child have to travel large distances to the nearest clinic, this can also be a problem.

One of the common first **symptoms** of a child being ill is a loss of appetite, followed by fever and vomiting with watery stools or faeces (diarrhoea). This is usually accompanied by weight loss. If the child is treated quickly they will recover and their weight will start to increase. However, if the sick child is already malnourished, this weight loss can be very serious and the child will take longer to recover.

Feeding the sick child

Feeding a sick child who is not hungry can be very difficult. It is very important for the mother to know that the child should be encouraged just to eat something, however small. It takes a lot of patience and time from the mother to persuade a sick child to eat. Often household members think that a sick child should be fed diluted foods or even no food, especially when they have diarrhoea but this is wrong. Why? Because with less food



intake, and therefore less energy and protein, this often results in even more weight being lost.

For the child to recover from an illness, extra food will be necessary, and the child must be encouraged to eat several small meals. It is most likely that a child would at this stage prefer food that they know and like such as soft, liquid and smooth foods, for example banana, mashed potatoes, fruit juice, soup or bread soaked in milk.

Box 2.2 Diarrhoea and fluid loss

Diarrhoea is an infection that is caused by specific bacteria. The bacteria are carried by human waste and water contaminated by the bacteria.

Diarrhoea is dangerous to all people, but especially so for children and the elderly. Diarrhoea is a major cause of malnutrition in infants and young children and can even result in death.

The major symptoms of diarrhoea are frequent, watery loose stools (runny tummy) with cramping. Other symptoms of severe diarrhoea are vomiting and fever. With diarrhoea and vomiting, water and other body fluids are lost and the child may become dehydrated or 'dry'. With diarrhoea there is not only a loss of water, but also a loss of sugar and minerals required for proper functioning of the body.

Why is diarrhoea such a problem, especially in developing countries? In developing countries, access to clean, hygienic toilets and safe disposal of human waste can be a problem. Often clean water is not even available to wash hands after using a toilet or before food preparation or before eating.

The symptoms that develop due to dehydration or fluid loss during diarrhoea are illustrated in the Figure 2.11below.

How to recognize the signs and symptoms of excessive water loss (dehydration) due to diarrhoea.

Signs and symptoms of dehydration in children and infants are very important to recognize because they aren't always old enough to be able to tell you how they are feeling. Look at the diagram Figure 2.11 below to learn some of the most important signs to look out for. Take note that all the symptoms may not occur at the same time. These are signs that the child's body is becoming dry and is losing water through the diarrhoea faeces, the:



- child wants to drink more than normal (thirstier)
- child cries without tears
- o urine dark, and small, usually at least after three hours
- child has a dry mouth
- o eyes and cheeks are sunken
- o lower stomach area (abdomen) sunken
- soft spot on the head (fontanelle) is sunken
- child shows pitting oedema or skin when folded stays up for two seconds and goes back slowly
- o child is unwell, sleepy and or irritable
- o child breath deep and fast
- o child's pulse is fast and weak
- child sometimes have a high fever

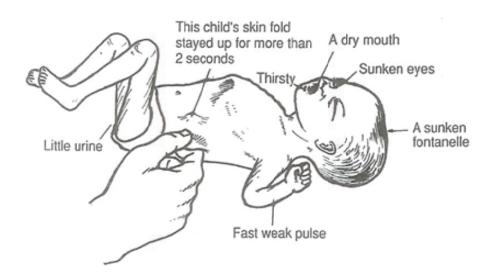


Figure 2.11 Signs of dehydration

(Adapted from King and Burgess, 1995)

What can we do when a child or any other person show symptoms of diarrhoea?

What needs to be done immediately when a child or any other sick person shows signs of dehydration? The dehydrated child/person will need **extra fluids** to replace the liquids and salts that were lost during diarrhoea. This process is called **rehydrating** the body. The most effective way to do this is to feed the child/person an **oral rehydration solution** (ORS). A child will need to drink a minimum of at least 2 cups of ORS a day.



When you work with members of your households you can show mothers and caregivers how to prepare this simple mixture of salt, sugar and water and to do so as safely as possible. It is important to remember that the ORS is a drink to replace the loss of water and that it is not a food. If the diarrhoea persists the child must immediately be taken to the nearest clinic for treatment.

Activity 2.4 How to prepare ORS

Complete the following task in your study guide

What to do

Look at the recipe for preparing ORS below and answer the questions that follow in the spaces provided.

Recipe for preparing and oral rehydration solution (ORS)

5 cups (1 litre) of clean boiled water

8 level teaspoons of sugar

Half a teaspoon of salt

Dissolve the salt and sugar in the clean boiled water using clean utensils, stir well. Keep the water covered to prevent contamination. Ensure that the water and ingredients are mixed n the correct proportions. If the ingredients are dissolved in too little water they could make the diarrhoea worse.

Add water only. Do not add ORS to milk, soup, fruit juice or soft drinks. Do not add extra sugar or other sweeteners.

Encourage the child to drink as much as possible. A child needs to drink at least $\frac{1}{4}$ or $\frac{1}{2}$ of a cup of the ORS after each watery stool.

Note: Diarrhoea usually stops in 3 to 4 days. If t does not stop take the child/person to the clinic.

	ons

1. Why should the water for preparing ORS be boiled?					



•	2. Why is it important that the measurements given must be followed carefully?				
3. How	often should the C	ORS be given to th	e sick child?		

Commenting on Activity 2.4

The water for preparing ORS needs to be boiled to prevent contamination by microorganisms. If disease - causing microorganisms are present in the water, the child or other person who suffers from diarrhoea will become even sicker and may die. If we do not use the measurements given by the ORS recipe it may also cause further harm to the sick person.

2.3 Nutrition of school aged children

Many school children of all ages go to school every day without having had anything to eat for breakfast or even supper the night before. In order to address this serious issue, Nelson Mandela introduced school feeding as a Presidential Lead Project in 1994. The purpose of National Schools Nutrition Programme (NSNP) was to provide the children with meals at school so as to enhance both their health and education performance, by combating malnutrition and improving the ability of children to concentrate during lessons.

2.3.1 Who is targeted by this programme and where does the funding come from?

At present primary schools in areas with poor households are targeted to receive school meals for 5 days a week. Funding is allocated to Provinces who then identify poverty stricken schools that would positively gain from such a feeding scheme. In 2008, 6 million children, in 18 000 public schools were fed on a budget of R 1.5 billion. The Department of Education extended this programme in 2009 to include secondary schools. The major objectives of the SA primary school feeding programme are to:

- · To feed learners at targeted schools
- To strengthen nutrition education in the school curriculum and school communities
- To facilitate the implementation of school gardens so as to encourage food production and economic activities in school communities.





Figure 3.12 A girl suffering from malnutrition (wasting and stunting) due to not receiving adequate food

By providing a snack or meal early in the school day, a child's short- term hunger can be decreased and their active learning capacity increased. *Short-term hunger* in this context refers to a situation where the child comes to school having had no breakfast and maybe even no supper the night before. *Active learning capacity* means the child's ability to concentrate and be able to tackle and solve challenging learning problems.



Figure 2.13 Preschool children eating white bread and slices of processed cheese for lunch.

Hunger is a critical problem affecting millions of South African primary school learners from poor households. In the rural provinces it can be as high one child out of four children that are malnourished with micro-nutrient deficiency. In some communities one out of three or two children can be malnourished. This is frightening if one has to think about the future of



the country which depends on today's children. There are a number of factors that contribute to this problem.

2.3.2What factors contribute to hunger in school children?

Factors that contribute to hunger in school children are:

- Poor meal patterns
- Eating food of inadequate quality and quantity,
- Lack of family time, interest and resources to prepare nutritious meals
- Walking long distances to school.

Activity 2.5 Hunger amongst primary school learners

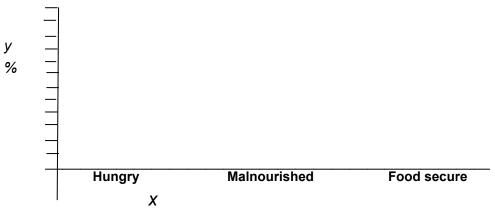
Complete this activity in your study guide

Children are often sent or go to school mainly to receive food! Without this extra food, these vulnerable children are unable concentrate and learn effectively. Just how serious is the hunger issue amongst primary school children? Read the statistics given below and then complete the tasks that follow.

In South Africa, the 1999 National Food Consumption Survey amongst children 1-9 years of age, found that 52% children experienced hunger, 25% children were chronically malnourished or stunted, and only 25% of the households were food secure.

What to do

1. Draw a bar graph (histogram) to show the statistics given in the *1999 National Food Consumption Survey*. Draw your bar graph (histogram) in the space below.



Nutritional status



2.	Write down three factors that you think contribute to hunger in school children.				

2.3.3 How does the SA NSNP work?

Schools participating in the programme are required to choose at least four menu options from those listed in the National Menu Options Document of 2006. The criteria used for the development of the menu options were determined by nutritionists at the Department of Health (DOH and were supposed to:

- Ensure nutritional balance in line with the South African Food-Based Dietary Guidelines (FBDG) (refer to Unit 3)
- Provide at least 30% of the Recommended Dietary Allowance for the 7 to 10 year old age group (one meal)
- Include only culturally and socially acceptable and locally consumed food items
- Give preference to fortified maize meal and bread baked with fortified wheat flour
- Encourage use of indigenous, seasonally-available foods
- Provide a variety of foods to choose from
- Discourage the use of highly processed foods
- Ensure the use of real dairy products
- Ensure that safe drinking water is available
- Require minimum preparation and serving time.



Figure 2.14 Parents selling popcorn, potato chips and sweets at school.



The school feeding programme in SA has experienced many problems, resulting in poor or even non - delivery of food. Some of the contributing factors are:

- provision of foods with inadequate quality
- poor food safety standards
- inadequate transport arrangements,
- lack of storage and preparation facilities at the schools
- a lack of community involvement

A well managed school feeding scheme should be able to provide 5 meals per child per week. However it is important to understand that school meals are **meal supplementation** and not full meals. The choice of menus from the DoH list should include 2 cooked and 2 non-cooked meals during the week. Some examples of standardized menu options are shown below.

Schools do not always have the facilities to store and prepare food for the feeding scheme. This is a strain on mothers that are willing to assist in feeding the children and can cause a high turnover in school cooking and community management teams.











Table 2.3 Some National School Nutrition Programme menu options

Examples of Menu Options that will provide at least 30% of the energy needs of school aged children

Option 1: Option 2:

Sunflower oil Rice

Maize meal Spinach/morogo

Option 3: Option 4:

Milk powder, full fat Maize meal Bread, brown Soya mince

Peanut butter Spinach/morogo

Option 5:

Samp

Dried beans

Spinach/morogo

Figure 2.15 Samp and dried bean relish served to school children with washed hands at lunch time.





Figure 2.16 The limited cooking and storage facilities at a school in a township in Limpopo with mothers cooking on an open fire.



Figure 2.17 The well equipped cooking and storage facilities at a school in a township in North West Province.

Reflect on the problems experienced by the NSNP. What do you suggest can be done to enhance community and parental/caregiver involvement?

2.3.4 School Food Gardens

Reflection

The long-term vision of the Department of Education is to extend the provision of school meals to include community and parental/caregiver involvement. One of these long-term goals is to have school feeding interventions contributing to Household Food Security (HFS), by producing food in school and community gardens. The aims of school and community food gardens are to:



- Provide income-generating opportunities,
- Improve access to a variety of food.
- Enhance the nutritional quality of the school meals
- Reduce chronic malnutrition among learners

The planning and implementation of school food gardens are strongly advised by government. This programme, called the *Sustainable Food Production in Schools*, will be run with the support of the Department of Agriculture, local government structures and a number of NGOs.







Figure 2.18 A school garden planted with spinach, carrots and beet root in Limpopo

The choice of which vegetables to plant in these gardens is of particular importance, and should, for example, include vegetables high in Vitamin C and Vitamin A as it is known that up to 50% o children aged 1 to 9 years may be deficient in Vitamin A. The Vitamin A content of the children's diet will be significantly increased if the choice of vegetables for planting includes orange-fleshed sweet potato and green leafy vegetables, such as spinach and *imifino or morogho*. You will learn more about food gardens in Module 5.



How successful is community involvement in HFSF?

In many provinces the involvement of community members and parents in school feeding programmes has not been successful. Why is this so? The reasons include a lack of knowledge of how and why the gardens should be cultivated, as well as a lack of interest from teachers and even the community.

Activity 2.6 Addressing the reasons for the failure of many school-based Household Food Security (HFS) interventions

Complete this activity in your study guide

Household Food Security Facilitators and the Department of Agriculture should become actively involved in such interventions and get the commitment of community members and parents. In this way

- the accessibility and affordability of nutritious food would be improved,
- short-term hunger would decrease,
- active learning and concentration would be increased and
- Household Food Security interventions could then be established at both school and community level.

Answer the questions that follow in the spaces provided

Questions

parents to become involved in interventions to address HFS? Explain



Short-term learning:			
Active learning:			

2. Explain the meaning of the terms: *short-term hunger* and *active learning*.

Commenting on Activity 2.6

At this stage you should be well aware that the approach we follow in this programme is based on the premise that some solutions to community problems already exist within the community and just need to be rediscovered. The support of HFS facilitators and agricultural extension workers could help improve the sustainability of food security interventions by setting their own example and encouraging community members to participate and develop their own solutions to existing problems.

The pictures shown in Figure 2.19 show the experimental garden of an agricultural extension technician that was working as an intern in the Waterberg district. He experimented with using deep trench methods and planting seedlings in old tyres at his home. Advice was shared with him by visiting consultants and his peers.



Figure 2.19 The home garden of the agricultural extension intern assisting the school intern in Limpopo

The agricultural extension technicians in the area assist the School Governing Body, school teachers and children at the local primary school to improve and extend the school garden to generate income and food for the children's households. A successful school



garden project depends on the participation of all local stakeholders and messages to move to the household gardens in the community.

2.4 Nutrition for the Elderly

The elderly (also like children and pregnant women) are particularly vulnerable to malnutrition and need special care to ensure a good balanced diet. The elderly and all other members of the household regularly should eat a variety of quality foods, for example, eggs, meat, milk, vegetables and fruit that will provide valuable protein and carbohydrates as well as all micronutrients.

The quantity of food portions for the elderly should be smaller because their energy needs are lower since they tend to be less active. However, the food intake of older people can sometimes be limited, because chewing and swallowing can become difficult due to teeth and gum problems. If food is not soft, the low dietary intake with lower energy and micronutrients can lead to chronic malnutrition.

With urbanization and the breakdown of large families and traditional support structures, the elderly can experience loss of appetite, loneliness, depression and poverty. And given that urbanized families often are unemployed and poor, they often send their children to live with grandparents in the rural areas. The grandparents must then stretch their very small pensions to buy not only essential food, but now also clothes and as well as school expenses for the children. In South Africa, this problem is even more difficult if the elderly are expected to become the care-givers of their children and grandchildren infected with HIV/AIDS.

2.4.1 What and how should the elderly eat?

The elderly should:

- Eat nutrient-rich foods that will provide all the needed micronutrients. Note that if food is diluted when preparing soft foods, the energy value of those foods is less and will not provide enough of the essential nutrients.
- Be given soft food that is easy to chew and swallow.
- Have access to foods safely prepared with clean water since the elderly are especially vulnerable to infections from contaminated foods and water just like young children are.
- Eat smaller meals eaten more often this could solve the problem of a loss of appetite.
- Be encouraged to take more exercise as this can help increase the appetite of the elderly person.



2.4.2 Elderly women and indigenous knowledge

Often elderly women are more interested in cultivating vegetables and other crops in food gardens. These women also have indigenous knowledge of vegetables that can be grown in food gardens and often know what indigenous plants can be collected from the wild/veld. They also know in which seasons these foods are available and would most likely practice more traditional crop planting, harvesting and storage techniques.



Figure 2.20 Harvesting indigenous food plants

Activity 2.7 Elderly women and indigenous knowledge

Complete this task in your workbook

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?
- 4. What methods do you use to grow the indigenous vegetables successfully?
- 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.
- 6. Identify and list traditional practices that lead to food availability, accessibility, utilization and stability of food in households.



2.4.3 Social support systems for elderly people

Elderly people in SA are entitled to a monthly pension from the Department of Social Services. However, many are not registered for this pension payout due to a lack of knowledge and physical problems that prevent them from registering for these services. The services are frequently difficult to gain access to, especially in rural areas. Family, friends, other caregivers and even you as a food security facilitator should assist elderly people to apply for and access these pensions. If the grandparents are also looking after grandchildren, the possibility of accessing child grants on behalf of these children should also be investigated.

2.5 What is good nutrition for people living with HIV/AIDS?

Human Immunodeficiency Virus - Acquired Immune Deficiency Syndrome also referred to as HIV/AIDS is a disease affecting the lives of a large number of South Africans. It is caused by a virus that attacks the immune system making the body vulnerable to opportunistic infections such that weaken the body and often result in premature death.

There is as yet no cure for HIV/AIDS but treatment with anti-retroviral (ARV) drugs has been found to be an effective way of delaying the onset of full blown AIDS. A lot of claims have been made that the use of specific foods and food supplements are an effective alternative treatment but there is no scientific evidence of this. However, it is true that good nutrition and a balanced diet, with a variety of foods, can help a person fight opportunistic infections and can delay the onset of end stage or full blown AIDS.

There have unfortunately been mixed messages regarding the effectiveness of particular foods that are claimed can delay or treat HIV/AIDS in South Africa. No specific foods such as garlic, olive oil, beetroot or African potato can do soon their own. It is important to remember that no specific food can destroy the virus, but can boost the immune system and prolong life. It is also known that in order for ARVs to be effective the person taking them must be eating a nutritious diet and living a healthy lifestyle.

The effect of some of the distressing symptoms, such as diarrhoea, weight loss and mouth and throat infections can be reduced if micronutrient supplements or pills such as minerals and vitamins are added to a balanced dietary intake as the nutritional status of the person with HIV/AIDS will be improved. A mix of vitamins and minerals that are taken daily and regularly are the best choice, but taking too much can also be harmful. It is important to discuss the choice of which vitamin and mineral pills to take with health workers.



2.5.1 The HIV/AIDS and Nutrition Cycle

HIV and nutrition are intimately linked. HIV infection can lead to malnutrition, while poor diet can in turn speed the infection's progress. As HIV treatment becomes increasingly available in the poorest parts of the world, critical questions are emerging about how well the ARV drugs work in people if they are short of food.

When the immune system is weakened, the virus has a bigger chance to multiply. Eating a healthy diet can boost the immune system and fight further infections, minimize muscle loss, enhance appetite, maintain body weight and muscles and help to cope with the side effects of medical treatment. If infections increase, so does the person's vulnerability, and the progress of the disease from HIV to end stage AIDS is hastened.

The relationship between HIV/AIDS and poor nutrition forms a vicious cycle as can be seen in Figure 2.21.

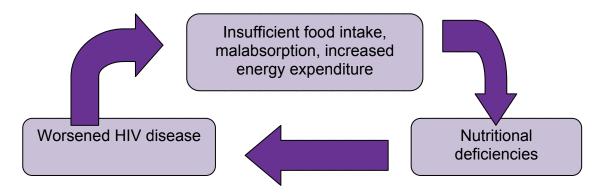


Figure 2.21 Diagram showing the vicious cycle of malnutrition and HIV

Some of the factors that can lead to poor nutritional status and chronic malnutrition are:

- Increased nutritional needs to keep the body functioning due to the need of the immune system to fight the virus and other infections
- Decreased appetite and food intake
- Poor digestion and poor absorption
- · Nausea, vomiting and diarrhoea
- Mouth sores
- Weakness and tiredness
- · Anxiety, depression and isolation
- · Medicines and side effects

Breaking the cycle: a Varied Mixed Meal

How can the vicious cycle shown in Figure 2.21 be broken?



Eating a variety of foods will ensure that people living with AIDS get quality protein, energy, vitamins and minerals. The right balance or combination of foods, are essential to promote well-being. The choice of foods, are not much different from those discussed in Unit 3 of this module and you will need to refer to that unit.

The variety of foods that is specifically important to deal with the health problems of the people living with AIDS are summarized below:

- Starchy foods for energy to control weight loss
- Fruit and vegetables for vitamins to boost immune function
- Meat and dairy foods to provide protein that will build and maintain strong muscles
- Dried beans, peas, lentils, peanuts and soya to provide quality plant proteins
- Sugars, fats and oils to provide and balance energy intake
- Safe, clean water to replace fluid loss during diarrhoea and vomiting
- No alcohol, since medication with alcohol can be dangerous.

2.5.2 HIV/AIDS and food and water hygiene

People living with AIDS (PLWA) are more vulnerable to new infections and react quickly and negatively to foods and water that is not clean and safe.

With HIV/AIDS, the immune system is vulnerable and not strong enough to cope with germs and bacteria. These are the major contaminants that can spoil food and even cause food poisoning, resulting in diarrhoea, abdominal pain, nausea and vomiting. Special care is required when buying, storing and preparing food. Unsafe food can be a health hazard not only to healthy people but even more so for people living with AIDS.

Raw or undercooked meat dishes, eggs and unpasteurised milk are the main foods that can easily be contaminated by germs. Similarly, water that comes from an unprotected source and which has not been boiled or bleached can have a devastating effect to aggravate the already decreased immune resistance with HIV/AIDS.

Hands should be washed before and after handling raw food and the work or cutting surfaces where food is prepared must be scrubbed with soap and hot water. It is also advised that a separate chopping board is used for raw met. Kitchen cloths and scourers should be washed in bleach, and similarly dishes and utensils. All fresh foods, particularly vegetables and fruits should be washed before eating. Foods that are cooked must be eaten as soon as possible or refrigerated and not be left at room temperature for another meal later in the day. Frozen foods must also be used immediately when defrosted and should not be re-frozen.



If water is collected from other sources than a tap, boiling and addition of a few drops of bleach will prevent contamination with germs. This water must be stored in a clean and covered container.

When shopping for food, only small amounts should be bought if there is no safe storing and cooling facilities. This is of particular importance when buying meat, dairy products and eggs. Growing fresh vegetables is not only less costly, but also provides a regular source of food that need not be stored when collected daily.

2.5.3 Baby feeding and HIV: the dilemma

HIV/AIDS cannot be spread by contaminated food or water and not by using the same cooking and eating utensils as the person with HIV/AIDS uses.

However, HIV can be spread from the mother to her baby through breast milk. This is an enormous problem especially in poorer communities where most poor mothers breastfeed. In richer communities many mothers do not breastfeed and when rich HIV positive mothers do breastfeed, the chances for cross-infection (infecting the baby) are only 15-20%. The reason for this is that anti-viral drugs are readily available to rich mothers. In poor communities the cross-infection can be close to 25-40%, with the infection rate increasing the longer the mother breastfeeds. Breastfeeding only up to the age of 4 months appears to be one solution, but this is a much shorter period than the usual cultural practices of breastfeeding for 1 to 2 years.

If poor women with HIV/AIDS should not breastfeed, their only alternative would then be to use bottle-feeding. This in itself can be dangerous since the water used to mix the baby formula is often contaminated and can lead to other dangerous water-borne infections such as gastro-enteritis. Furthermore, bottles and powder milk are expensive and often mothers dilute the milk to make it last longer. With poor access to clean water it is also difficult to keep baby bottles properly sterilized. However, the problem with bottle feeding can be overcome if Health Professionals can provide adequate basic anti-natal services, where mothers can be trained to mix feeds safely.

If a HIV positive mother is treated with anti-viral medication at the end of pregnancy and during birth, the chances of infecting the baby can be lowered significantly. The dilemma is that many pregnant mothers are not aware that they are HIV positive. So, what are the choices for mothers living in poor developing countries? The safer option in these circumstances appears to be to breastfeed, since the danger of water borne diseases such as diarrhoea can be even more deadly than the possible transmission or transfer of the HIV virus from the mother to the baby.



2.5.4 What is the role of home-based caregivers?

The side effects of medication and the many adverse factors that a person with AIDS has to cope with every day can become too much to handle alone. Home-based caregivers in South Africa provide an essential service to people with AIDS. Often these caregivers working as volunteers without a salary and a stipend for costs despite their huge work load and in some instances do not even have access to HIV/AIDS drugs for the patient or equipment such as gloves to protect themselves.

With the death of children and grandchildren from HIV/AIDS, the elderly frequently become the primary caregivers of orphans and dependent children and grandchildren. Many of the elderly are themselves in poor health and find the burden overwhelming. Pensions and social grants can of course help to cope with the extra financial burdens, but elderly caregivers also need the support from the community, especially when coping and caring for a sick family member or friend.

Activity 2.8 Visit to practitioners caring for People Living with HIV AIDS (PLWHA)

Do this activity in your workbook

What to do

Read the following instructions and then answer the questions that follow.

- Select any three of the following sites to visit, make an appointment if necessary:
 - The local health clinic,
 - o an NGO working with PLWHA,
 - o A care giving centre
 - The social work office in your municipality or ward.
- Ask permission to ask a few questions about the practitioner's role in terms of their work related to caring for PLWHA.
- Answer the following questions in your work book.
 - a. Does their role include food, nutrition and health related tasks?
 - b. Who did you visit, and what are their daily duties?
 - c. Which food, nutrition and health related tasks are included in their role/job?
 - d. Do the PLHWA visit them at the clinic or at counselling rooms
 - e. Do they visit the PLHWA in their homes? How often?
 - f. Do they offer or carry out any care giving at home of the PLHWA?
 - g. Do they work with orphans and what is their role?
 - h. Do they experience their work to be stressful and how do they cope?



- i. Do they work on certain tasks as a team? Name them.
- j. Does their work provide satisfaction?
- k. What role could you play in providing assistance or support given as a food security facilitator?

Comment on activity 3.

For integrated interventions to work in communities you need to know who your fellow colleagues are in the same areas so that you can work together to identify, provide care and support services to vulnerable households. Linkages with different NGOs and local government will ease the task take care of the vulnerable. Know the task of each organisation and roles of their staff so that you can make them aware of crisis and communicate tasks at hand for assistance.

Making linkages and building networks are very important activity to capacitate you in fulfilling your role as household food security facilitator. The Departments of Health and Social Development may be good partners, as well as NGO's with similar tasks.

Concluding remarks

In this unit you have learnt that there are nutrition needs for people in the different life stages but that the needs also are dependent on their health. As a household food security facilitator your role is to help educate vulnerable households about these different nutrition needs and to help them access the various facilities available to them at clinics, as well as accessing social grants, food supplements and parcels etc. In the next unit you will learn to help households assess their food behaviours and find ways of improving their access and intake of nutritious foods.

