The benefits of good nutrition for people and families living with HIV/AIDS

WE EAT FOR MANY REASONS

Food is important for everyone. Familiar foods make us feel safe and secure. Food reminds us of our childhood, home country and culture. We celebrate events by eating special foods in the company of people who are important to us. When we eat well we feel well.

Food provides the energy and nutrients that bodies need to:

- Stay alive, move and work;
- Build new cells and tissues for growth, maintenance and repair;
- Resist and fight infections.

When the body does not get enough food, it becomes weak and cannot develop or function properly. Healthy and balanced nutrition means eating the right type of foods in the right quantities to keep healthy, keep fit and enjoy ourselves. The basics of good nutrition are explained in the next chapter.

HIV/AIDS AND NUTRITION

The HIV virus attacks the immune system. In the early stages of infection a person shows no visible sign of illness but later many of the signs of AIDS will become apparent, including weight loss, fever, diarrhea and opportunistic infections (such as sore throat and tuberculosis).

Good nutritional status is very important from the time a person is infected with HIV. Nutrition education at this stage gives the person a chance to build up healthy eating habits and to take action to improve food security in the home, particularly as regards the cultivation, storage and cooking of food.

Good nutrition is also vital to help maintain the health and quality of life of the person suffering from AIDS. Infection with HIV damages the immune system, which leads to other infection such as fever and diarrhea. These infections can lower food intake because they both reduce appetite and interfere with the body's ability to absorb food. As a result, the person becomes malnourished, losses weight and is weakened.

One of the possible signs of the onset of clinical AIDS is a weight loss of about 6-7 kg for an average adult. When a person is already underweight, a further weight loss can have serious effects. A healthy and balanced diet, early treatment of infection and proper nutritional recovery after infection can reduce this weight loss and reduce the impact of future infection.

A person may be receiving treatment for the opportunistic infections and also perhaps combination therapy for HIV, these treatments and medicines may influence eating and nutrition. Good nutrition will reinforce the effect of the drugs taken.

When nutritional needs are not met, recovery from an illness will take longer. During this period the family will have the burden of caring for the sick person, paying for health care and absorbing the loss of earnings while the ill person is unable to work. In addition, good nutrition can help to extend the period when the person with HIV/AIDS is well and working.

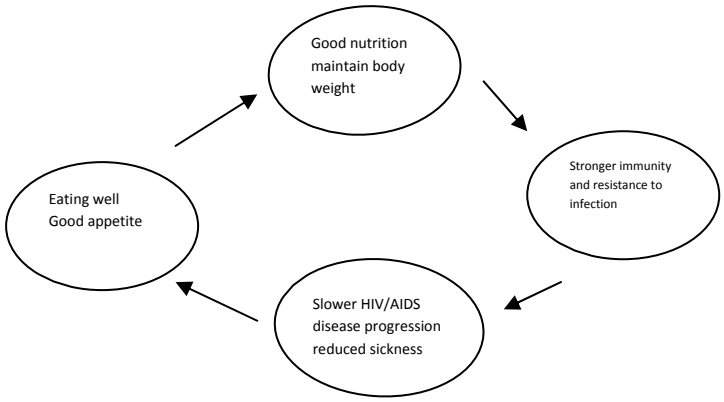
HEALTHY AND BALANCED NUTRITION IS IMPORTANT FOR PEOPLE WITH HIV/AIDS

Nutritional care and support promote well-being, self-esteem and a positive attitude to life for people and their families living with HIV/AIDS.

Healthy and balanced nutrition should be one of the goals of counseling and care of people at all stages of HIV infection. An effective programme of nutritional care and support will improve the quality of life of people living with HIV/AIDS, by:

- Maintaining body weight and strength:
- Replacing lost vitamins and minerals;
- Improving the function of the immune system and the body's ability to fight infection.
- Extending the period from infection to the development of the AIDS disease;
- Improving response to treatment; reducing time and money spent on health care;
- Keeping HIV-infected people active, allowing them to take care of themselves, their family and children; and
- Keeping HIV-infected people productive, able to work, grow food and contribute to the income of their families.

Relationship between good nutrition and HIV/AIDS



Source: adapted from Piwoz and Prebel, 2000

Special eating needs for people living with HIV/AIDS

A person who is infected with HIV/AIDS and is not showing signs of illness does not need a specific "HIV-diet". However, those infected

with HIV should make every effort to adopt healthy and balanced nutrition patterns (as explained in Chapter three) in order to meet their increased protein and energy requirements and maintain their nutritional status.

Once people with HIV/AIDS become ill they will have special needs, which are described below.

PEOPLE LIVING WITH HIV/AIDS HAVE INCREASED NUTRIENT NEEDS

When infected with the HIV virus the body's defence system-the immune system-works harder to fight infection. This increases energy and nutrient requirements. Further infection and fever also increase the body's demand for food. Once people are infected with HIV they have to eat more to meet these extra energy and nutrient needs. Such needs will increase even further as the HIV/AIDS symptoms develop.

HIV/AIDS reduces food intake

People with HIV/AIDS often do not eat enough because:

- The illness and the medicines taken for it may reduce the appetite, modify the taste of food and prevent the body from absorbing it;
- Symptoms such as a sore mouth, nausea and vomiting make it difficult to eat;
- Tiredness, isolation and depression reduce the appetite and the willingness to make an effort to prepare food and eat regularly;
- There is not enough money to buy food.

HIV/AIDS reduces the absorption of food

Food, once eaten, is broken down by digestion into nutrients. These nutrients pass through the gut walls into the bloodstream and are

transported to the organs and tissues in the body where they are needed. Once of the consequences of HIV and other infections is that since the gut wall is damaged, food does not pass through properly and is consequently not absorbed.

Diarrhea is a common occurrence in people with HIV/AIDS. When a person has diarrhea the food passes through the gut so quickly that it is not properly digested and fewer nutrients are absorbed.

Reduced food intake and absorption lead to weight loss and malnutrition.

HIV/AIDS AFFECTS WEIGHT

When a person does not eat enough food, or the food eaten is poorly absorbed, the body draws on its reserves stores of energy from body fat and protein from muscle. As a result, the person loses weight because body weight and muscles are lost.

The weight loss may be so gradual that it is not obvious. There are two basic ways to discover whether weight is being lost.

- Weight the person on the same day once a week and keep a record of the weight and date (see sample sheet in Annex 4). For an average adult, serious weight loss is indicated by a 10 percent loss of body weight or 6-7 kg in one month. If a person does not have scales at home it might be possible to make an arrangement with a chemist, clinic or local health unit to weight him or her.
- When clothes become loose and no longer fit properly.

If a person losses weight he or she needs to take action to increase weight to the normal level.

GAINING WEIGHT

Weight is gained by eating more food, either by eating larger portions and / or eating meals more frequently, using a variety of foods as described in the previous chapter. Here are some suggestions for gaining weight:

- Eat more staple foods such as rice, maize, millet, sorghum, wheat, bread, potatoes, sweet potatoes, yams and bananas.
- Increase intake of beans, soy products, lentils, peas, groundnuts, peanut butter and seed, such as sunflower and sesame.
- Include all forms of meat, poultry, fish and eggs as often as possible. Minced meat, chicken and fish are easier to digest. Offal (such as kidney and liver) can be the least expensive source.
- Eat snacks regularly between meals. Good snacks are nuts, seeds, fruit, yoghurt, carrots, cassava crisps, crab crisps and peanut butter sandwiches.
- Slowly increase the fat content of the food by using more fats and oils, as well as eating fatty foods-oilseeds such as groundnuts, soy and sesame, avocados and fatty meat. If problems with a high fat intake are experienced (especially diarrhea), reduce the fat intake until the symptoms are over and then gradually increase it to a level that the body can tolerate.
- Introduce more dairy products such as full-cream milk, sour milk, buttermilk, yoghurt and cheese into the diet.
- Add dry milk powder to foods such as porridge, cereals, sauces and mashed potatoes. However, do not use coffee and tea whiteners, which do not have the same nutritional benefits as milk. Note that some people may find milk difficult to digest. It should be avoided if it causes cramps, a feeling of being full or skin rashes.

- Add sugar, honey, jam, syrup and other sweet products to the food.
- Make meals as attractive as possible
- Recipes following these recommendations for gaining weight are provided in Annex 1.

Increasing the number of meals and snacks in a day. If poor appetite persists or the person is ill, it is a good idea to spread the food intake throughout the day. Snacks should be included in the daily meal plan.

- A snack is any nutritious food that is ready available and can be eaten without much preparation. Good snacks are nuts, seeds, fruits, yoghurt, carrots, cassava chips, crab chips and peanut butter sandwishes. With at least three meals a day and snacks in between, there is less likelihood of malnutrition or weight loss.
- If a person needs to stay in bed. Food and water should be kept within easy reach.
- Careers should ensure that sick members of the family are given preference, fed more frequently and receive extra servings to maintain their weight and strength. Food should be served in an attractive way. Careers need to be kind, while frequently encouraging people to eat.

Exercises improve well-being. Regular exercise makes a person fee more alert, helps to relieve stress and stimulates the appetite. Exercise is the only way to strengthen and build up muscles. The body uses muscles to store energy and protein that the immune system can draw upon when required. Exercise is therefore especially importantly for maintaining the health of people with HIV/AIDS.

It may be that everyday activities such as cleaning, working in the field and collecting firewood and water provide enough exercise. If a

person's work does not involve much exercise, an enjoyable exercise programme should be found that can be part of his or her daily life. Exercise should not be tiring or stressful; gentle muscle –building exercise is recommended. Walking, running, swimming or dancing are all suitable. People living with HIV/AIDS need to make an effort to find the exercise that they enjoy and that suits their situation.

Preventing weight loss during and after illness. Infection increases the body's requirements for nutrients. Illness also reduces the appetite and the ill person will eat less food, causing weight loss. Recommendations for dealing with poor appetite, diarrhea, vomiting, sore mouth and nausea are given in chapter six.

Early treatment of infection is important to maintain body weight. If infection persist and cannot be cured by nutritional management within a couple of days, advice and treatment should be sought from a doctor, nutritionist, nurse or local health worker.

Once the infection is over and the person is feeling better, he or she should start eating normally again. It is important to regain the weight lost as soon as possible and to restore the body's nutritional reserves.

Try to eat three good meals daily with frequent snacks in between.

INCREASE VITAMIN AND MINERAL INTAKE

Vitamins and minerals are essential to keep healthy. They protect against opportunistic infection by ensuring that the lining of skin, lungs and gut remain healthy and that the immune system functions properly. Of special importance are vitamin A, Vitamin C, Vitamin E, certain B-group vitamins and minerals such as selenium, zinc and iron. A mixed diet as recommend in Chapter three should provide

enough of these vitamins and minerals. Some background information or micronutrients, their nutritional role and food sources are provided in Annex 3.

Vitamin A is important to keep the lining of skin, lungs and gut healthy. Vitamin A deficiency increases the severity of diseases such as diarrhea while infection will increase the loss of vitamin A from the body. Good vitamin A sources are dark green, yellow, orange and red vegetables and fruit. These include spinach, pumpkin, cassava leaves, green peppers, squash, carrots, amaranth, yellow peaches, apricots, papaya and mangoes. Vitamin A is also contained in red palm oil, yellow maize, orange and yellow sweet potatoes, egg yolks and liver.

Vitamin C helps to protect the body from infection and aids in recovery. It is found particularly in citrus such as oranges, grapefruit, lemons and mandarins. Guavas, mangoes, tomatoes and potatoes are also good sources of vitamin C.

Vitamin E protects cells and aids resistance to infection. Foods containing vitamin E are green leafy vegetables, vegetable oils, peanuts and egg yolks.

Vitamin B-group. This group is necessary to keep the immune and nervous system healthy. Vitamins, however, may be lost from the body through the use of certain medicine for the treatment of tuberculosis. Good food sources include white beans, potatoes, meat, fish, chicken, watermelon, maize, grains, nuts, avocadoes, broccoli and green leafy vegetables.

Iron. Iron-deficiency anemia is a widespread problem in many countries, especially among women and children. Good iron sources are green leafy vegetables, seeds, whole-grain products, dried fruit,

sorghum, millet, beans, alfalfa, red meat, chicken, liver, fish, seafood and eggs.

Selenium is an important mineral it helps to activate the immune system. Good sources include whole grains such as whole meal bread, maize and millet and dairy products such as milk, yoghurt and cheese. Meant, fish, poultry, eggs and other protein-rich foods are also good sources, as are peanut butter, dried beans and nuts.

Zinc is also important for the immune system. Zinc deficiency reduces the appetite. Sources include meat, fish, poultry, shellfish, whole-grain cereals, maize, beans, peanuts and milk and dairy products.

Further recommendations

Since the vitamin content of food can be damaged during cooking, it is better to boil, steam and fry vegetables for a short time only. Boil vegetables in a little water and use it afterwards for cooking as it contains considerable amounts of vitamins and minerals. Vegetables will lose some of their vitamins and minerals if soaked for a long time.

The skins and kernels of grains and legumes contain vitamins, in particular of the B-group. Processed refined grains have lost many of their vitamins, minerals and proteins so whole grains such as brown bread and unrefined cereals are better sources than white bread and refined cereals. Fortified cereals and bread are preferred because of their higher vitamin content. If a person has diarrhea, however, whole unrefined grains and cereals should be avoided since these insoluble fibres make the diarrhea worse. Soluble fibre foods such as bananas are recommended. Fibres are contained in many plant

foods. Soluble fibres will bind water in the gut and therefore reduce diarrhea.

MICRONUTRIENT SUPPLEMENTATION – WHICH, HOW MUCH AND WHEN?

When food intake is low, multivitamin and mineral supplements – often in the form of pills – can help to meet increased requirements. However, these supplements are often not available; they are expensive and leave less money for food. It would therefore be better to provide a good mixed diet whenever possible rather than buy supplements.

If supplements are considered necessary, the following guidelines should be adhered to:

- Discuss you intake of vitamin and mineral supplements with your health worker or nutritionist.
- Always take vitamin pills on a full stomach. Be consistent and take them regularly.
- It is probably cheaper to take a combined product with minerals rather than several pills containing different vitamins and minerals. However, iron may be a problem for people with HIV/AIDS as it can increase the activity of some bacteria. Supplements that do not contain iron are therefore better.
- Take any vitamin or mineral supplementation according to the advice on the label. More is not better. Taking high doses can cause nausea, vomiting, decreased appetite and liver and kidney problems as well as interfere with the immune system. This is particularly true of Vitamin A, Vitamin E, zinc and iron.