

SESSION 5 NUTRITIONAL MANAGEMENT OF HIV/AIDS-RELATED SYMPTOMS

Purpose

The purpose of this session is to give students knowledge and skills for the nutritional management of HIV/AIDS-related symptoms.

Learning objectives

By the end of the session, students will be able to:

- Describe the appearance of HIV/AIDS-related symptoms in the progression of the disease.
- Describe the dietary management of HIV/AIDS related symptoms.

Estimated time: 60 minutes

Prerequisite knowledge

- Knowledge of infant, child, and adult nutrition
 - Basic counseling skills
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Outline

Content	Methodology	Timing
<ol style="list-style-type: none"> 1. Review of the relationship between nutrition and HIV/AIDS <ul style="list-style-type: none"> • Use of the RCQHC/FANTA model to show that malnutrition weakens the immune system and HIV exacerbates the situation • Review of the effects of HIV on nutrition and vice versa 2. Evolution of HIV/AIDS and the nutritional repercussions: The importance of nutrition to prevent the repercussions at all stages of the illness 3. HIV/AIDS-related symptoms and their dietary management <ul style="list-style-type: none"> • Nutritional management for illnesses such as diarrhea, anorexia, nausea or vomiting, fever, anemia, wasting, and constipation: What foods to take and avoid • Assessing a client with different HIV/AIDS dietary related symptoms 	<p>Facilitate an interactive lecture using PowerPoint 5 presentation</p> <p>Facilitate a question and answer session to master dietary management of symptoms</p> <p>Use Exercise 5 role-play on counseling clients presenting with different symptoms</p> <p>Distribute and explain the use of Handout 5.1</p>	50 minutes
Discussion on the presentation	Use Exercise 5 to help students master key concepts	10 minutes

Required materials

- LCD or overhead projector
- Flipchart stand and paper
- Writing pens

Recommended preparation

- Be familiar with **Lecture Notes 5: Nutritional Management of HIV/AIDS-Related Symptoms**.
- Allocate time for each activity considering students' backgrounds and the coverage of the content elsewhere
- Prepare to divide class into pairs for **Exercise 5** role-plays on counseling people presenting with HIV/AIDS-related symptoms. For this manual, names for the role-plays were selected arbitrarily, the names and any other aspects (e.g., foods, medication, symptoms) of the following case studies should be modified appropriately for country and community contexts.

Materials provided

PowerPoint Presentation

- **PowerPoint 5/overhead presentation: Nutritional Management of HIV/AIDS-Related Symptoms**

Handouts

- **Handout 5.1: Caring for Symptoms Associated with HIV in Adults**

Suggested reading materials

Bijlsma, M. 1996. Living positively: A nutrition guide for people with HIV/AIDS. Mutare, Zimbabwe: Mutare City Health Department.

Health Canada/Santé de Canada. 2002. A comprehensive guide for the care of persons with HIV disease. Canadian Strategy on HIV/AIDS. Ottawa.

Fan, H, R Conner, and L Villareal. 2000. The biology of AIDS. 4th ed. Boston: Jones and Bartlett Publishers.

Food and Nutrition Technical Assistance (FANTA) Project. 2001. HIV/AIDS: A guide for nutrition, care and support. Washington, DC: FANTA Project, Academy for Educational Development.

Miller, TL, and SL Gorbach. 1999. Nutritional aspects of HIV infection. New York: Oxford University Press.

Piwoz, E, and EA Preble. 2001. HIV/AIDS and nutrition: A review of the literature and recommendations for nutritional care and support. , DC: SARA Project, Academy for Educational Development/SARA Project.

Scrimshaw, NS. 1977. Effect of the infection on nutrient requirements. *Am J Clin Nutr* 30: 1536-44.

LECTURE NOTES 5: NUTRITIONAL MANAGEMENT OF HIV/AIDS-RELATED SYMPTOMS

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Introduction

Malnutrition remains a public health challenge in resource-limited settings. There are various forms of malnutrition with complex and subtle causes. Malnutrition affects all age groups in sub-Saharan Africa.

Purpose (slide 2)

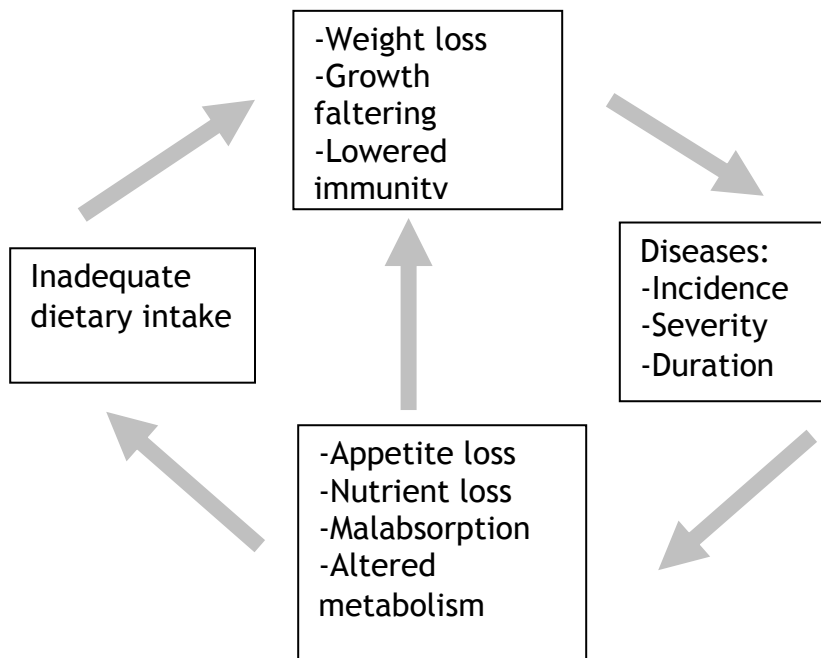
The purpose of this session is to give students knowledge and skills for the nutritional management of HIV/AIDS-related symptoms. The session:

- Discusses the appearance of HIV/AIDS-related symptoms in the progression of the disease
- Describes the dietary management of HIV/AIDS related symptoms

Malnutrition and infection

As illustrated in figure 1, malnutrition increases vulnerability to and severity of infections, and infections aggravate malnutrition. Inadequate dietary intake leads to malnutrition and lowered immune system function. Malnutrition reduces the body's ability to fight infections and therefore contributes to increased incidence, severity, and length of infections. Symptoms that accompany infections, such as loss of appetite, diarrhea, and fever, lead to reduced food intake, malabsorption, nutrient losses, and altered metabolism, which lead to weight loss, growth faltering, and further weakening of the immune system.

Figure 1 Vicious cycle of malnutrition and infection



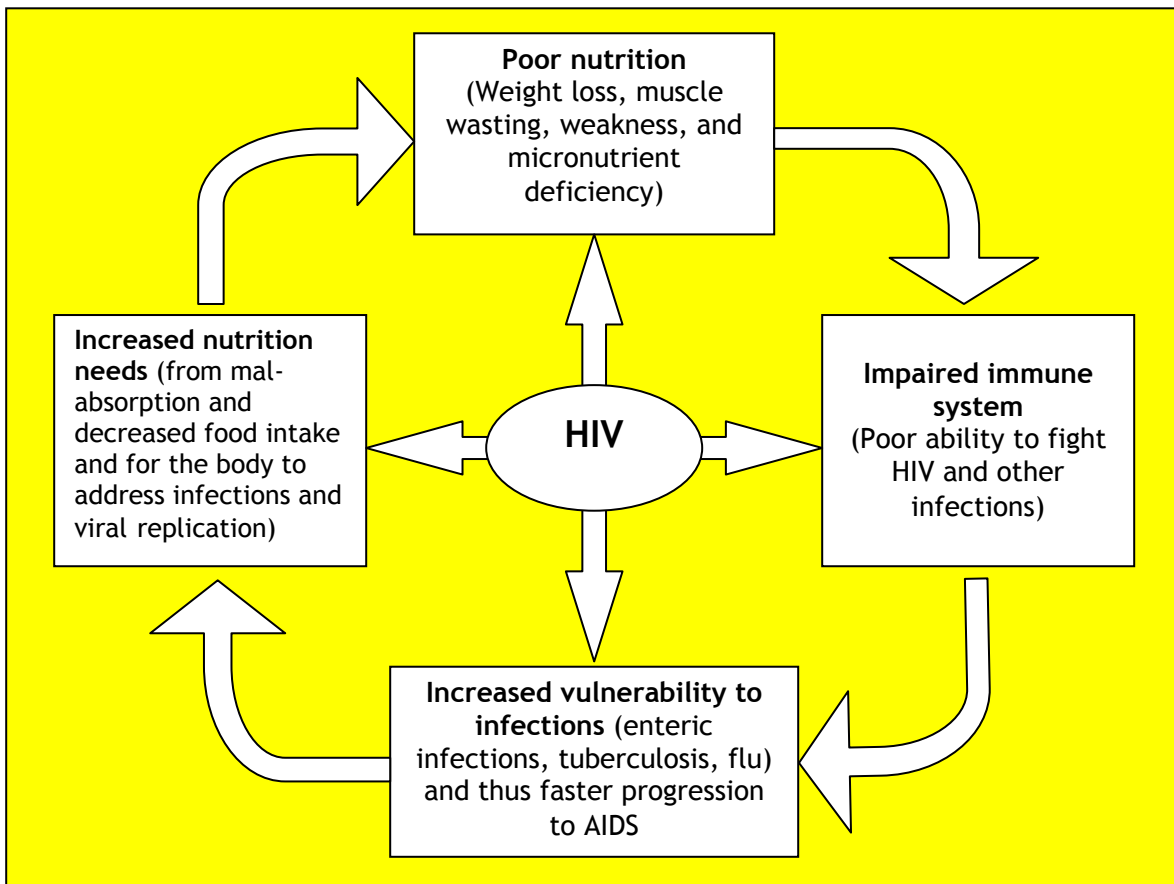
Source: Tomkins and Watson 1989

In resource-limited settings, HIV infection is often contracted by people who may already be malnourished. Their lowered immune systems increase their vulnerability to infections.

Relationship between nutrition and HIV/AIDS (slide 4)

HIV infection has long been recognized to have a possible negative impact on the nutritional status of people living with HIV/AIDS and lead to malnutrition. The relationship between HIV/AIDS and malnutrition is a classic example of the vicious cycle of immune dysfunction, infectious diseases, and malnutrition. As illustrated in figure 2, malnutrition can weaken the immune system and increase vulnerability to infections, and may speed up the progression of the disease.

Figure 2 Cycle of malnutrition and infection in the context of HIV/AIDS (slide 5)



The nutritional needs of HIV-infected people and the effects of HIV infection on their nutritional status may vary according to the stage in the disease.

I. Acute phase

Initial infection. As soon as HIV enters the body, it replicates rapidly. This rapid replication requires energy and nutrients taken from the host's body. The virus relies entirely on the host for survival and will deplete the host of whatever is required for its multiplication and survival. The HIV infection may have a rapid onset leading to hypermetabolism with catabolism. Although some infected people may not have any symptoms at this stage, the host's energy and nutrient needs increase, and food intake should increase accordingly. If the host's food does not increase, there will be a nutrient negative balance. The period during which this occurs varies from 1 to 6 weeks, depending on the person.

Seroconversion. During the seroconversion phase, the body produces antibodies to fight the virus. The body needs additional energy and nutrients to mount this immune response. If these are not provided by the diet, the host will use fat and muscle to provide the necessary nutrients. The host will lose weight and will gradually develop malnutrition that will weaken the immune system and make the host vulnerable to opportunistic infections. The seroconversion phase occurs after 6-12 weeks.

II. Asymptomatic phase

The length of the asymptomatic phase varies and may last several years, depending on the host's health and nutritional status before the infection. The asymptomatic phase is marked by hypermetabolism and increased energy needs.

III. Symptomatic phase (slide 6)

Initial symptoms are marked by the onset of opportunistic infections. Common symptoms include fever, night sweats, tuberculosis, fungal infection of the mouth, chronic diarrhea, and weight loss. The onset of opportunistic infections is a sign of a weakened immune system. Negative nitrogen balance occurs early in acute infections because of the decrease in food intake and increased urinary protein losses. Immunologic response to infection activates cytokines, which causes fever and anorexia, thereby leading to increased energy expenditure and decreased caloric intake. The opportunistic infections further increase the nutritional needs of the host and continue to weaken the immune system and hasten the progression of the disease.

The persistence of symptoms and opportunistic infections lead to increased energy, and nutrient needs, reduced food intake, malabsorption of nutrients, weight loss, and wasting. Wasting is defined as a profound involuntary weight loss > 10 percent of baseline body weight plus either chronic diarrhea (> 30 days) or chronic weakness and documented fever (> 30 days) in the absence of a concurrence illness or condition other than HIV infection (Macallan 1999). Wasting is often accompanied by changes in lean body mass and body cell mass (Babameto and Kotler 1997). The persistence of reduced food intake, malabsorption of nutrients, weight loss, and wasting will lead to full-blown AIDS.

IV. Late symptomatic phase (full-blown AIDS)

The late phase is marked by metabolic alteration, weight loss, and wasting. Other characteristics include high viral load, decreased CD4 count, pneumonia, Kaposi's sarcoma, systemic fungal infection, bacterial infection, and certain types of cancer.

Table 1 briefly describes the symptoms that occur at each stage of the disease and the nutritional repercussions. The stages and the symptoms described are indicative and may vary from one individual to another or overlap.

Table 1 Progression of symptoms in HIV infection and nutritional impact

Stage	Symptoms	Nutritional impact
I. Acute infection Initial infection	Transient early acute symptoms: fever, body ache High concentration of virus in the blood (1-6 weeks)	Hypermetabolism Increased energy, and nutrient needs. Nutrient depletion
Seroconversion	Body starts producing antibodies (6-12 weeks) or after 15 months for HIV-infected baby	
II. Asymptomatic (includes also initial infection and seroconversion)	No symptoms Declined number of CD4 Varied length (can last several years)	
III. Symptomatic phase Initial symptoms (onset of opportunistic infections)	First symptoms, illustrating a weakened immune system: lymphadenopathy, fever, night sweats, tuberculosis, and chronic fatigue	Increased energy and nutrient needs, nutrient malabsorption and depletion, and weight loss
Early immune failure	Shingles, thrush, chronic diarrhea, chronic fatigue	Hypermetabolism Increased energy and nutrient needs Nutrient malabsorption Weight loss and wasting
IV. Late symptomatic, full-blown AIDS	High viral load, marked decreased in CD4, pneumonia, Kaposi's sarcoma, systemic fungal infection, bacterial infection (tuberculosis), cancer	Hypermetabolism Increased energy and nutrient needs Nutrient malabsorption and depletion Metabolic alteration Weight loss and wasting

Source: Adapted from Piwoz 2000

Importance of good nutrition at all times (slide 10)

Good nutrition is critical for people living with HIV/AIDS (box 1). Good nutrition has the greatest impact at the early stages of the disease because it strengthens the immune system to fight opportunistic infections and delays the progression of the disease. Good nutritional status before contracting the virus is also important. A person with good nutritional status is resistant to many infections. Even at the onset of symptoms, good nutrition helps reduce the severity of infections and the likelihood of weakening the immune system. Good nutrition also contributes to weight gain, stops wasting, and enables the host's body to fight opportunistic infections.

Box 1 Positive impact of adequate nutrition for people living with HIV/AIDS (slide 11)

- Prevents malnutrition and wasting
- Achieves and maintains optimal body weight and strength
- Enhances the body's ability to fight opportunistic infections
- May help delay the progression of the disease
- Improves the effectiveness of drug treatments
- Improves the quality of life

HIV/AIDS symptoms and nutritional implications (slide 12)

Symptoms appear in an HIV-infected person at a critical time when the virus has already caused some damage to the body, such as the reduction of the CD4 cells, and is gradually hindering the capacity of the body to fight opportunistic infections. CD4 cells, also known as T4 cells, which are a sub-category of T-lymphocyte cells, are the primary cells to which HIV binds during HIV infection, resulting in cell death. The progression of HIV disease is marked by a progressive depletion of CD4 cells or T-lymphocyte cells. Monitoring the number of CD4 cells helps to monitor the progression of the disease (Fan et al 2000). Symptoms such as skin rash and headache may require medical treatment.

The following symptoms may also negatively affect nutritional status:

1. **Reduced food intake** during loss of appetite or anorexia, nausea, oral thrush, constipation, and bloating or heartburn
2. **Poor nutrient absorption** during diarrhea and vomiting
3. **Increased nutrient needs** during fever and anemia

Medical treatment is critical to treat symptoms and opportunistic infections, and good nutrition complements medical treatment. Good nutrition enhances the capacity of the body to fight opportunistic infections and therefore maximizes the effectiveness of medical treatment. Nutrition can help people without access to medical treatment manage symptoms and strengthen immune function.

Reduced food intake will result in insufficient energy and nutrient intake at a time of increased nutritional needs. A person living with HIV/AIDS who was in good nutritional status at the beginning of the infection might have to use fat storage to meet energy needs and will gradually lose weight. If the reduced food intake persists, the body will use muscle to produce energy. If the person was not in good nutritional standing at the onset of infection, the effect of HIV/AIDS-related symptoms on food intake would be compounded by opportunistic infections and very quickly lead to weight loss and wasting.

People living with HIV/AIDS tend to present various oral conditions that may affect food intake. They may suffer from bacterial infections such as gingivitis or periodontal disease, viral infections such as herpes, and fungal infections such as thrush. Other oral diseases such as cavities that are not HIV/AIDS-related but that can also affect food intake should be treated promptly. This will help avoid the drastic reduction in food intake that increases the negative impact on nutritional status.

Poor nutrient absorption prevents the body from using the nutrients provided by foods and contributes to energy and nutrient losses, which will increasingly hamper the capacity of people living with HIV/AIDS to meet their increased nutritional needs. If malabsorption of nutrients is not properly addressed, the deficit in energy and nutrients will increase and further weaken the person and their immune system and speed up the progression of the disease.

Increased nutrient needs result from the additional needs the body requires to replicate the virus and compensate for nutrient losses during the many disease processes, such as fever and anemia that are often present in people living with HIV/AIDS. During fever the resting energy expenditure increases, and consequently the total energy expenditure increases, increasing the likelihood of weight loss. Often people living with HIV/AIDS gradually decrease their level of physical activity to maintain their energy balance, further limiting their capacity to carry out regular daily activities. Additionally, the nutrients from food intake are poorly used, increasing the energy and nutrient gaps and helping to increase the severity of opportunistic infections and speed up the progression of the disease.

Anemia is common in people living with HIV/AIDS and may result from cytokine-induced suppression of red blood cell production, chronic inflammation, reduction in food intake, the effect of antiretroviral therapy such as Zidovudine, or nutritional deficiencies of iron, folate, riboflavin, vitamin A, and vitamin B₁₂.

Reduced food intake, poor nutrient absorption, and increased nutrient needs occur simultaneously to further debilitate the immune systems of people living with HIV/AIDS, prevent them from meeting their nutritional needs, and worsen their health and nutritional status. Health workers and counselors should advise using available foods and nutrients to address HIV/AIDS-related symptoms, either to maintain food intake or to compensate for nutrient losses.

Dietary management of HIV/AIDS-related symptoms (slides 13, 14, 15)

Dietary management of HIV/AIDS-related symptoms refers to the strategy of using food and nutritional practices to manage the effects of HIV/AIDS-related symptoms on food intake and nutrient absorption. The goal of dietary management of HIV/AIDS-related symptoms is to prevent malnutrition and improve the health and nutritional status of people living with HIV/AIDS, thereby slowing the progression of the disease. The specific objectives are to reduce discomfort, alleviate symptoms, and ensure adequate food intake using locally available foods. Dietary management of HIV/AIDS-related symptoms has the following advantages:

- Enables greater food intake by adding more flavor, encouraging consumption of small but frequent quantities of food, or presenting foods in a texture that can be easily eaten
- Increases comfort and reduces pain while eating
- Provides more nutrients to compensate for nutrient losses
- Prevents dehydration during diarrhea and fever
- Complements and strengthens medical treatment
- Reduces the severity of symptoms by providing specific nutrient needs and strengthening the immune system

Handout 5.1 provides information on coping with HIV/AIDS symptoms. This dietary advice has been used successfully in some countries but should be adapted to specific food habits and regional constraints and availability (slide 16). Each country should compile and capitalize on these experiences by making them available to people living with HIV/AIDS, caregivers, and affected households and communities. Health workers and counselors should refer to national guidelines on nutritional responses to HIV/AIDS-related symptoms when they are available.

The dietary management of HIV/AIDS-related symptoms should be integrated in all services at health centers and in outreach activities where health workers and counselors meet people living with HIV/AIDS (e.g., counseling, testing, and antenatal visits). During counseling sessions, health workers and counselors should always assess how clients are managing diet-related HIV/AIDS symptoms and, when needed, help identify alternative options. See Session 6 for additional information on how to counsel people living with HIV/AIDS.

Conclusion

The dietary management of HIV/AIDS-related symptoms helps improve nutritional status by maintaining food intake and compensating for nutrient losses. Dietary management complements medical treatment and enhances the capacity of the body to fight opportunistic infections. Health workers and counselors should carefully monitor the client's symptoms and food and drug regimen to ensure that nutritional status is maintained.

EXERCISE 5

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Management of HIV/AIDS-related symptoms

Use **Lecture Notes 5** to discuss the PowerPoint slides. After the PowerPoint presentation, depending on the time available for the class, use one or more of the following tasks.

TASK 1: Divide students into two groups of equal number for a question and answer session. Distribute **Handout 5.1** to students for reference. Give group 1 a list of the following dietary symptoms: Fever, anorexia, nausea, and vomiting. Give group 2 a list of the following dietary symptoms: Diarrhea, thrush, and constipation. Give each group 10 minutes to master the dietary management of its list of symptoms. In plenary have each group present the dietary management of its symptoms and correct any misinformation. If scores are recorded, the group with the most correct answers will be the winner.

If time allows, ask each group to master the dietary management of a different set of symptoms and present it in plenary.

When the students have mastered the dietary management of all the symptoms, quiz them on the dietary management of all symptoms and ask them to give the reasons for the recommended food and nutrition and care practices.

TASK 2: Using the case study below, divide students into pairs for a role-play on nutritional assessment to help them master this task. Ask two students to role-play a counseling session between an HIV-infected client who has HIV/AIDS-related symptoms including nausea, thrush, and fever and a counselor who will assess the dietary management of the symptoms. The first volunteer will be the client with fever, nausea, and thrush. The second volunteer, the counselor, will focus on the assessment during the counseling.

John, 35, was tested for HIV 2 years earlier when he donated blood to his brother, who just had an accident. John was informed the day after the blood donation that he was HIV positive. He had attended several counseling sessions to help him cope

with the infection and remembered that the counselor insisted that he seek prompt treatment for any symptom. John has not been feeling well for the past 2 days. He is suffering from nausea, thrush, and fever, and has decided to go to the counselor.

After the counseling session, the counselor will explain how to use the information that was collected.

Distribute the observation checklist to the students to record their observations and provide feedback to the volunteers. Ask the students to write their comments in the appropriate column. After the role-play, ask the counselor to share what was easy or difficult during the assessment. Ask other students to provide feedback following the order of the checklist. They should start by saying what the counselor did well, then add what the counselor should improve, and finally suggest how the counselor can improve.

Summarize the session, highlighting the importance of considering food security issues in the dietary management of the symptoms. Remind students to use the related resource materials.

HANDOUT 5.1 Caring for symptoms associated with HIV in adults

Illness	Diet	Care and nutrition practices
Anorexia (appetite loss)	<ul style="list-style-type: none"> • Try to stimulate appetite by eating favorite foods. • Eat small amounts of food more often. • Select foods that are more energy dense. • Avoid strong-smelling foods. 	<ul style="list-style-type: none"> • If appetite loss is a result of illness, seek medical attention for treatment.
Diarrhea	<ul style="list-style-type: none"> • Drink a lot of fluids (soups, diluted fruit juices, boiled water, and light herbal teas) to avoid dehydration. • Avoid strong citrus fruits (orange, lemon) because they may irritate the stomach. • Consume foods rich in soluble fiber (millet, banana, peas, and lentils) to help retain fluids. • Consume fermented foods such as porridges, and yogurt. • Consume easily digestible foods such as rice, bread, millet, maize porridge, potato, sweet potato, and crackers. • Eat small amounts of food frequently and continue to eat after illness to recover weight and nutrient loss. • Eat soft fruits and vegetables such as bananas, squash, cooked and mashed green bananas, mashed sweet potato, and mashed carrots. • Eat eggs, chicken, or fish for protein. • Drink nonfat milk if there is no problem with lactose. • Boil or steam foods. <p>Avoid or reduce intake of these foods:</p> <ul style="list-style-type: none"> • Some dairy products such as milk • Caffeine (coffee and teas) and alcohol • Fatty foods • Fried foods and extra oil, lard, or butter • Gas-forming food such as cabbage, onions, carbonated soft drinks (sodas) 	<p><u>Prevention</u></p> <ul style="list-style-type: none"> • Drink plenty of clean boiled water. • Wash hands with soap and water before handling, preparing, serving, or storing foods. • Wash hands with soap and water after using a toilet or latrine or cleaning a child after defecation. <p><u>Treatment</u></p> <ul style="list-style-type: none"> • Drink more fluids to prevent dehydration. Prepare rehydration solutions using oral rehydration salt packets or a home-made solution of 1 liter of boiled water, 4 teaspoons of sugar, and 1/2 teaspoon of iodized salt. • Go to a health center if symptoms such as severe dehydration (low or no urine output), fainting, dizziness, shortness of breath, bloody stools, high fever, vomiting, severe abdominal pain, or diarrhea) persist for more than 3 days.

Illness	Diet	Care and nutrition practices
Fever	<ul style="list-style-type: none"> • Eat soups rich in foods that give energy and nutrients, such as maize, potatoes, and carrots. • Drink plenty of liquids. • Drink teas from lemon, guava, and gum tree. • Drink more than usual, beyond thirst. • Continue to eat small, frequent meals as tolerated. 	<ul style="list-style-type: none"> • Drink fluids to prevent dehydration, particularly clean boiled water. • Bathe in cool water. • Rest. • Take two aspirin or Panadol, if available, with a meal three times a day (morning, afternoon, and evening). • Go to the health center in case of: <ul style="list-style-type: none"> ➢ Fever that last several days and is not relieved with aspirin ➢ Loss of consciousness ➢ Severe body pain ➢ Yellow eyes ➢ Severe diarrhea ➢ Convulsion seizure ➢ Convulsion seizure
Nausea and vomiting	<ul style="list-style-type: none"> • Eat small and frequent meals. • Eat foods such as soups, unsweetened porridge, and fruits such as bananas. • Eat lightly salty and dry foods such as crackers to calm the stomach. • Drink herbal teas and lemon juice in hot water. • Avoid spicy and fatty foods. • Avoid caffeine (coffee and tea) and alcohol. • Drink liquids such as clean boiled water. 	<ul style="list-style-type: none"> • Avoid an empty stomach; nausea is worse if nothing is in the stomach. • Avoid lying down immediately after eating; wait at least 20 minutes to avoid vomiting. • Rest between meals.
Thrush	<ul style="list-style-type: none"> • Eat soft, mashed foods such as carrots, scrambled eggs, mashed potatoes, bananas, soups, and porridge. • Eat cold or room-temperature foods. • Avoid spicy, salty, or sticky foods; these may irritate mouth sores. • Avoid sugary foods; these cause yeast to grow. • Avoid strong citrus fruits and juices that may irritate mouth sores. • Avoid alcohol. • Drink plenty of liquids. 	<ul style="list-style-type: none"> • Seek medical attention for treatment. • If a spoon or cup is available, use it to eat small amounts of foods. • Tilt head back when eating to help with swallowing. • Rinse mouth with boiled warm salt water after eating to reduce irritation and keep infected areas clean so yeast cannot grow.
Anemia	<ul style="list-style-type: none"> • Eat more iron-rich foods such as animal products (eggs, fish, meat, and liver) green leafy vegetables (collard greens, spinach), legumes (beans, lentils, groundnuts), nuts, oil seeds and fortified cereals. • Take iron supplements. 	<ul style="list-style-type: none"> • If available, take one iron tablet once a day with some food. Take with a source of vitamin C such as tomatoes or orange juice to help with absorption. • Drink fluids to avoid constipation. • Treat malaria and hookworm.

Illness	Diet	Care and nutrition practices
Muscle wasting	<ul style="list-style-type: none"> • Increase food intake by increasing quantity of food and frequency of consumption. • Improve quality and quantity of foods by providing a variety of foods. • Increase protein in diet. • Increase intake of starchy foods in cereals and other staples. • Eat small, frequent meals. 	<ul style="list-style-type: none"> • Do regular weight-bearing exercise to build muscles.
Constipation	<ul style="list-style-type: none"> • Eat more foods that are high in fiber, such as maize, whole-wheat bread, green vegetables, and washed fruits with the peel. • Drink plenty of liquids. • Avoid processed or refined foods. 	<ul style="list-style-type: none"> • Avoid using cleansing practices such as enemas and medications. • Drink plenty of fluids, including boiled water.
Bloating or heartburn	<ul style="list-style-type: none"> • Eat small, frequent meals. • Avoid gas-forming foods (cabbage, soda). • Drink plenty of fluids. 	<ul style="list-style-type: none"> • Eat long enough before sleeping so food can digest.
Tuberculosis	<ul style="list-style-type: none"> • Consume foods high in protein, energy, iron, and vitamins. 	<ul style="list-style-type: none"> • Seek medical attention immediately. • Consult medical personnel about taking food with medications. • If taking Isoniazid for treatment, take a vitamin B₆ supplement to avoid deficiency of this micronutrient.
Loss of taste or abnormal taste	<ul style="list-style-type: none"> • Use flavor enhancers such as salt, spices, herbs, and lemon. • Chew food well and move it around in mouth to stimulate receptors. 	

HANDOUT 5.2 Observation checklist for nutritional assessment

	Yes	No	Comments
1. Did the counselor ask the client about:			
Feeding practices			
Foods frequently eaten?			
Number of meals per day?			
Period(s) of food shortage?			
Foods affected by food shortage?			
Coping strategy during food shortage?			
Most available and affordable foods?			
Symptoms			
Different symptoms and their frequency?			
Coping strategy?			
2. Did the counselor find out from his knowledge and from the information collected about:			
Food to use to address each symptom?			
Alternative options?			
Care and nutritional practice for each symptom?			