ASSIGNMENT 5

**Registration number: Aipms 274/2019**

1. Explain why people living with HIV do not necessarily have AIDS

The human immunodeficiency virus (HIV) infects cells of the immune system, destroying or impairing their function. Infection with the virus results in progressive deterioration of the immune system, leading to "immune deficiency." The immune system is considered deficient when it can no longer fulfil its role of fighting infection and disease. Infections associated with severe immunodeficiency are known as "opportunistic infections", because they take advantage of a weakened immune system.

Acquired immunodeficiency syndrome (AIDS) is a term which applies to the most advanced stages of HIV infection. It is defined by the occurrence of any of more than 20 opportunistic infections or HIV-related cancers.

Proper treatment plans and early intervention mean those with HIV can enjoy a good quality of life. Treatment will be provided by a team of professionals, not only doctors.

In the past, a person with HIV [could develop](https://www.aids.gov/hiv-aids-basics/hiv-aids-101/what-is-hiv-aids/) AIDS within a few years. Now, many people with HIV will never develop AIDS, because effective treatment is available. Without treatment, a person who develops AIDS can expect to live for another 3 years, unless they experience a life-threatening complication.

Treatment consists primarily of medication, including antiretroviral therapy (ART). Once treatment starts, it is important to continue, or [drug resistance can develop](https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/21/56/drug-resistance).

People with either HIV or AIDS normally use a combination of highly active antiretroviral therapy (HAART) drugs that help to slow the progression of the virus.

This medication is adjusted to suit each individual, and it needs to be taken for life. A person who has a diagnosis of HIV can delay or prevent AIDS from developing by seeking early treatment and following the treatment plan as recommended.

People who follow an effective treatment regimen are unlikely ever to develop AIDS.

Left untreated, however, HIV continues to damage the immune system.

1. In your community, what are the myths associated with HIV infection?

**I'm HIV-positive. My life is over.**

In the early years when the disease was epidemic, the death rate from AIDS was extremely high. But today's drugs allow HIV-positive people -- and even those with AIDS -- to live much longer, normal, and productive lives.

## If I'm getting treatment, I can't spread the virus.

When [HIV treatments](https://www.webmd.com/hiv-aids/understanding-aids-hiv-treatment) work well, they can lower the amount of virus in one`s blood to a level that doesn't show up in blood tests. This is called an undetectable viral load. However, this doesn't mean zero viral load, and there can be intermittent increases in the virus level. So while one are less contagious with an undetectable viral load, the risk of spreading HIV is not zero.

One should practice [safe sex](https://www.webmd.com/hiv-aids/safe-sex-preventing-hiv-aids-stds) so one won't make someone else HIV-positive.

## AIDS is genocide.

HIV isn't a government conspiracy to kill minorities. Rates of infection are higher in African-Americans and Latinos, but that may be due, in part, to less access to health care and other social and economic factors.

## My partner and I are both HIV-positive, so we don't have to practice safe sex.

Wearing of condoms or using dental dams can protect one both from other, possibly drug-resistant, strains of HIV.

## I could tell if my partner was HIV-positive.

One can be HIV-positive and not have any symptoms for years. The only way for one or one`s partner to know if one is positive is to get tested.

## One can't get HIV from oral sex.

It's true that oral [sex](https://www.webmd.com/sex-relationships/default.htm) is less risky than some other types of [sex](https://www.webmd.com/sex-relationships/rm-quiz-sex-fact-fiction). The rate of transmission is 0 to 4 cases in 10,000 acts. But one can get HIV by having oral sex with either a man or a woman who is HIV-positive. Always use a latex barrier during oral sex.

## Mosquitoes spread HIV.

Because the virus is passed through [blood](https://www.webmd.com/a-to-z-guides/rm-quiz-blood-basics), people have worried that they could get it from biting or bloodsucking insects. Several studies show that doesn't happen -- even in areas with lots of [mosquitoes](https://www.webmd.com/skin-problems-and-treatments/illnesses-mosquito-bites) and cases of HIV.

When bugs bite, they don't inject the blood of the person or animal they bit before one. Also, HIV lives for only a short time inside them.

## I can get HIV by being around people who are HIV-positive.

HIV isn't spread through touch, tears, sweat, [saliva](https://www.webmd.com/oral-health/what-is-saliva), or pee.

1. Describe the relationship between HIV/AIDS and nutrition

HIV and nutrition (slide 6) HIV infection progressively destroys the immune system, leading to recurrent OIs, debilitation, and death. OIs are infections that take advantage of a weak immune system. Poor nutritional status is one of the major complications of HIV and a significant factor in full-blown AIDS. In resource-limited settings, many people who become infected with HIV may already be undernourished. Their weakened immune systems further increase their vulnerability to infection.

Poor nutrition and HIV:

The relationship between HIV and nutrition is multifaceted and multidirectional. HIV can cause or worsen undernutrition by causing reduced food intake, increased energy requirements, and poor nutrient absorption. Undernutrition in turns further weakens the immune system, increasing vulnerability to infection and worsening the disease’s impact. This cycle can result in the following: Weight loss, the most common and often most disturbing symptom of HIV, reported in most people with AIDS (RCQHC and FANTA Project 2003b)

Loss of muscle tissue and fat.

Vitamin and mineral deficiencies.

Increased nutritional needs because of infections, metabolic changes, viral replication, and poor nutrient absorption.

Weakness and reduced productivity.

Reduced immune function.

Increased susceptibility to OIs

Malnutrition and HIV:

**Poor Nutritional Status**

Weight loss, muscle wasting, and macronutrient deficiency

**Increased Nutritional needs**

Due to malabsorption, decrease food intake, infectious, and viral replication

**Impaired Immune System**

Poor ability to fight HIV and other infections.

In HIV

**Increased vulnerability to infections**

Increased frequency and duration of opportunistic infections and possibly faster progression to AIDS

Nutrition care and support helps break this cycle by helping people living with HIV (PLHIV) maintain and improve their nutritional status, boost their immune response, manage the frequency and severity of symptoms, and improve their response to antiretroviral therapy (ART) and other medical treatment.

Effective nutrition interventions can help transform the vicious cycle of HIV and undernutrition into a positive relationship between improved nutritional status and stronger immune response.

Nutrition and HIV/AIDS:

**Good Nutritional Status**

Weight regained or maintained and no macronutrient deficiency

**Nutritional Need met**

Additional energy need met, consumption of adequate diet with food from all food groups, nutritional management of symptoms.

**Strengthened Immune System.**

Improved ability to fight HIV and other infections.

NUTRITION

INTERVENTIONS

**Reduced vulnerability to infections.**

Reduced frequency and duration of opportunistic infections and possibly slower progression of AIDS

Effects of poor nutrition on HIV;

Poor nutritional status can affect HIV in the following ways:

Weakened immune system.

Increased susceptibility to OIs.

Slower healing process.

Possibly faster progression of disease.

Poorer response to treatment.

Despair and worsening depression.

Improving and maintaining good nutrition may prolong health and delay the progression of HIV to AIDS. The impact of proper nutrition begins early in the course of HIV infection, even before other symptoms are observed.

Effects of HIV on nutrition:

HIV affects nutritional status in three distinct ways, listed below. These effects can occur simultaneously in the same person.

Reduced food consumption.

Symptoms of OIs can result in reduced food intake because of the following:

Inability to eat or swallow because of nausea or painful sores in the mouth or throat.

Loss of appetite because of fatigue, depression, and other changes in mental state.

Side effects of medications including nausea, appetite loss, taste changes, diarrhea, vomiting, and abdominal cramps.

Reduced quantity or quality of household food because of inability to work or absenteeism resulting from HIV-related illness or the need to divert money to pay for treatment or other HIV-related expenses.

Increased energy needs.

The body’s response to HIV infection and viral replication uses additional energy. As the disease progresses and OIs occur, infections and symptoms such as fever further increase energy expenditure. When infection is prolonged, muscle wasting occurs and muscle tissue is broken down.

Reduced absorption of nutrients.

HIV interferes with the body’s ability to absorb nutrients, an effect that occurs with many infections. Poor absorption is also caused by OI symptoms such as diarrhea and vomiting. Poor absorption can occur in any phase of HIV infection in both adults and children and leads to excess nutrient loss. Poor fat absorption reduces the absorption and use of fat-soluble vitamins such as A and E, which can further compromise nutritional and immune status.

1. Describe the dietary advice one would give to a mother on the following
2. Nutrition

Good nutrition is important for everyone, and it’s especially important for new moms who are recovering from pregnancy, labor and delivery and are working hard to keep her family healthy and happy. Here are some tips all new moms can use to make sure they get proper nutrition.

Don’t diet. Stay away from fad diets and calorie counting, and focus more on getting enough of the good stuff and limiting the junk. One need to get plenty of calories, but most of those calories should come from whole foods.

Stock up on healthy foods. If one cabinets and refrigerator are full of healthy foods, one will be more likely to eat the way one should be eating. Focus on nutrient-rich foods, such as:

Whole grains, lean meats and proteins, fresh fruits and vegetables (the darker the color, the more nutrients it likely has), low-fat dairy (unless doctor recommends full-fat dairy for one), nuts and beans and other legumes.

Choose healthy snacks, such as whole, fresh fruit, nuts, fresh vegetables, cottage cheese and whole grain crackers.

Plan head and cook in bulk to save oneself time. This can help one avoid convenience foods.

Go to the grocery store with a list of healthy choices and stick to it. And don’t shop when you’re hungry if one can avoid it.

Read labels, and avoid processed foods with more than five easily identifiable ingredients.

Drink plenty of water.

1. Pregnancy

Good nutrition during pregnancy can help to keep one and one developing baby healthy. The need for certain nutrients, such as iron, iodine and folate, is increased at this time.  
  
A varied diet that includes the right amount of healthy foods from the five food groups generally provides our bodies with enough of each vitamin and mineral each day. However, pregnant women may need supplements of particular vitamins or minerals.

It is important to choose a wide variety of healthy foods to make sure that the nutritional needs of both mother and baby are met.  
  
A pregnant mother can eat well during pregnancy by:

Enjoying a variety of fruits and vegetables of different types and colours

Increasing ones intake of grain and cereal foods to 8-8 ½ serves a day. Choose mostly wholegrain and high fibre options

Choosing foods that are high in iron, such as lean red meat or tofu. Iron-rich foods are important for pregnant women

Making a habit of drinking milk, and eating hard cheese and yoghurt, or calcium-enriched alternatives. Reduced-fat varieties are best

Drinking plenty of water (fluid needs are about 750 to 1,000 ml extra per day)

Foods and drinks that are high in saturated fat, added sugar and salt are not a necessary part of a healthy diet and should be limited.

1. Breastfeeding

Breastfeeding mothers or women who are pumping breast milk frequently ask if there are special dietary considerations during this time. In most cases, the answer is no. **Nutrition for breastfeeding mothers**should consist of a well-balanced diet and enough liquids. Although shedding those extra pounds gained during pregnancy may be one of ones concerns, strict weight-loss programs are not recommended, especially during the first few months of breastfeeding.

There are no special diets a breastfeeding mother must eat, but the following suggestions may help one focus on ones eating patterns while breastfeeding:

***Get adequate fluids***

Drink enough liquids. Most mothers do notice they are thirstier when breastfeeding. Drink plenty of liquids, such as juice, water and milk, to quench ones thirst. Liquids can be in any form, but limit ones intake of any that contain caffeine. It is not necessary to force fluids beyond ones thirst, but it is a good idea to drink something whenever one feel thirsty. Grab something to drink while breastfeeding, or keep a glass of liquid near ones favorite breastfeeding spot.

***Choose a variety of foods, and take in enough calories***

Ones own appetite is usually the best guide for how much one should eat. In general, mothers are hungrier during the first several months of breastfeeding, and one should not ignore feelings of hunger when producing milk for ones baby. Grab a one-handed snack to eat while breastfeeding, or keep wrapped snacks near ones favorite breastfeeding spot.

Eat a variety of foods to get the calories, vitamins and minerals one need to remain healthy. Experts recommend that one eat at least 2,000 calories per day while breastfeeding, with one`s optimal caloric intake being 500 calories above what was recommended for one before one became pregnant (for total calories between 2,300 and 2,700). For reference, a peanut butter sandwich and a glass of milk contains about 500 calories.

Foods from the following food categories offer the most nutritional value:

Meats

Beans

Vegetables (especially leafy green vegetables)

Fruits or 100 percent fruit juice (not fruit drinks)

Breads, cereals and grains

Milk, cheese and eggs

***Other nutrition considerations for breastfeeding mothers***

**Spicy or “gassy” foods.** Spicy or gas-producing foods are common in the diets of many cultures, and these kinds of foods do not bother most babies. A few babies will develop gas or act colicky when their mothers eat certain foods. However, there is no one food or food group that creates problems for all babies. Unless one notice that one`s baby reacts within six hours every time one eat a certain food, there is no need to avoid any particular foods.

**Vegetarian diets.** Vegetarian or mostly vegetarian diets have been the mainstay of many cultures for centuries, and the breast milk of vegetarians is usually as nutritionally appropriate as that of other mothers. While one’re breastfeeding, one will want to be sure that one`s diet includes complete proteins, so eat a wide variety of foods. Many vegetarians, including some lacto-ovo vegetarians (who eat eggs and dairy products), may require supplemental vitamin D, iron and calcium during the period they are breastfeeding.   
  
Women who are eating vegan or macrobiotic diets may produce milk that is deficient in vitamin B12. These mothers often require supplements of vitamin B12 so their breast milk will contain a sufficient amount.

**Coffee, tea or sodas.** Drinking caffeinated beverages may make one`s baby jittery or irritable and can make him or her have difficulty sleeping, especially if one drink too much caffeine or drink it very quickly. Drink mainly caffeine-free beverages when breastfeeding. If one cannot give up one`s caffeine, limit one`s intake to about two eight-ounce servings per day.

**Alcohol:** It is best to avoid drinking alcoholic beverages while breastfeeding or pumping for milk. Alcohol does enter the milk supply and can affect one`s baby. If one do have an alcoholic drink while breastfeeding, one may need to pump and discard the milk.

**Smoking/tobacco use:** It is best to avoid tobacco use when breastfeeding or pumping. Nicotine and its byproducts pass into milk, and tobacco use may cause a baby to have a more rapid heartbeat, restlessness, vomiting or diarrhea. In addition to its possible effects on the baby, tobacco use can interfere with milk let-down and it may reduce the amount of milk one produce.

1. Explain the challenges a HIV positive mother may encounter in feeding her infant.

Replacement, or formula, feeding is one option for HIV-positive mothers to consider.  However, in other parts of the world, formula is expensive and can present health dangers to infants if unclean water is used to prepare it.  Replacement feeding can also be a source of stigma in places with high HIV prevalence, as it can single women out as potentially being HIV-positive in their community if they do not follow culturally accepted breastfeeding practices.

Breastfeeding can be challenging no matter where one live in the world, but HIV presents special difficulties for women and their families when it comes to ensuring that infants receive proper, safe nutrition during their first year of life.

For infected mothers living in poor conditions in developing countries, however, it is important to consider very carefully the risks related to not breastfeeding and whether there are alternative feeding methods. In a rural community, where access to clean water and sanitation is inadequate, where families are too poor to afford enough fuel to prepare food and to sterilise feeding bottles or to buy sufficient infant formula, deaths from diarrhoea and respiratory infections could far outnumber those from HIV.

Infants who are fed foods or liquids in addition to breast milk (mixed feeding) or instead of breast milk (replacement feeding) during the first 6 months of life are at increased risk of morbidity and mortality from unsafe water, inadequate formula preparation or storage, unsanitary conditions and formula shortages, particularly in low-resource settings.

1. Explain the importance of periodic nutrition assessment in the nutritional management of HIV and AIDS.

 The importance of nutrition in the management of HIV and AIDS is now well established. Achieving and maintaining optimal nutrition is purported to improve the immune function, reduce the incidence of HIV-related complications including metabolic disorders, attenuate disease progression, and improve survival of people living with HIV.

Nutrition counselling and support are recommended to enable PLHIV to achieve an adequate nutrient and energy intake for as long as possible, enhance their quality of their lives, improve and minimise symptoms. This can be achieved through nutritional assessment and screening, interventions such as nutrition education and lifestyle counselling, and by providing psychosocial support. Nutritional supplements and ready-to-use therapeutic foods are also re- ported to be beneficial in improving the nutritional status of people living with HIV.

Good nutritional status is very important from the time a person is infected with HIV. Nutrition education at this early 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 infections such as fever and diarrhoea. 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, loses weight and is weakened.

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