ASSIGNMENT 5

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

* Not all HIV-positive individuals have AIDS, as HIV can remain [in a latent state](https://en.wikipedia.org/wiki/AIDS#Clinical_latency) for many years.If undiagnosed or left untreated, HIV usually progresses to AIDS, defined as possessing a CD4+ lymphocyte count under 200 cells or HIV infection plus co-infection with an AIDS-defining opportunistic infection.

1. Early Stage (Asymptomatic) is regarded is characterized by:

* Weight loss of less than 5%.
* Increased energy requirement (10% more)
* Largely no related symptoms (except in the first few weeks)
* Generalized lymph glands enlarged.
* Immune system weakening and recurrent upper respiratory tract infections.
* The individual does normal activities. All the above are indicators for people living with HIV but not AIDS

1. Intermediate Stage (Early symptomatic) is characterized by.

Increased energy requirement (20% more)

* Weight loss greater than 10%/failure to thrive.
* Persistent fever and diarrhea.
* Early opportunistic infections.
* Mucous membrane and skin infections (e.g. Candidiasis).
* Recurring respiratory tract infections.
* Normal or partial activity (bed ridden for less than 50% of the time).

All the above are indicators for people living with HIV but not AIDS

1. Late Stage (Full-blown AIDS).

* Increased energy requirement (30% more).
* Weight loss greater than 10% and wasting.
* Multiple signs and symptoms.
* AIDS defining OIs: Chronic diarrhea, Pneumonia, Candidiasis, Tuberculosis (TB), Kaposi sarcoma.
* Weak and low activity (bed ridden for more than 50% of the time)

The above are typical signs of full-blown AIDS.

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

1: A person can contract HIV from touching someone who has it

It is not possible to transmit or contract HIV by touching. **Fact**: People cannot transmit or contract HIV simply by touching. Shaking hands, hugging, high-fiving, or other types of physical contact will not transmit the virus. A person can only contract the virus if they come into contact with the following fluids from a person who already has HIV:

* Blood, breast milk, pre-seminal, rectal, semen, vaginal. These fluids must come into contact with another person's mucous membranes, such as in or on their rectum, vagina, penis, or mouth, for a person to be at risk of contracting HIV. Transmission can also occur via broken skin or by using infected needles.

2: A person can contract HIV from infected insects and animals

**Fact**: Some people believe that they can contract HIV from infected insects. While insects can transmit some illnesses, HIV is not one of them. To transmit HIV, a mosquito or another insect would have to bite a person with HIV, then inject the blood back into another person's body. Insects do not re-inject old blood into a new person, so it is impossible for them to transmit HIV.

1. A person can contract HIV from infected water

**Fact**: HIV cannot survive in water. As a result, a person cannot contract the virus from swimming, drinking, bathing, or other activities involving water.

Also, a person cannot contract HIV from the saliva, sweat, or tears of a person with HIV, providing these water-based components do not have blood in them.

4: If a couple has HIV, they do not need to protect themselves

People with different strains of HIV can transmit them to one another.

**Fact**: Different strains of HIV exist. Therefore, if a person and their partner have two different strains of HIV, they can transmit these to each other.

Having more than one strain of HIV can make treating it more challenging, as medications target specific strains to prevent them from replicating.

Also, a person can still transmit and contract [sexually transmitted infections](https://www.medicalnewstoday.com/articles/246491.php) from sex without a condom. Using a condom or another form of barrier protection during sex and taking antiretroviral medications to prevent HIV transmission are vital. This is the case even if both partners already have HIV.

5: Blood transfusions raise the risk of HIV

**Fact**: Doctors rigorously test the blood supply for a variety of blood-related conditions, including HIV. Banked blood that is available for transfusion does not contain HIV. A person also cannot contract HIV from organ and tissue donations, as these have also undergone testing.

6: A person cannot contract HIV from oral sex or deep-mouth kissing

In rare cases, it is possible to contract HIV from open-mouth kissing if a person has blood in their mouth.

**Fact**: HIV transmission via open-mouth kissing and oral sex are rare but possible.

During oral sex, placing the mouth on the penis, vagina, or anus can potentially expose a person to infected fluids that could enter mucus membranes in the mouth. While the risk of contracting HIV as a result of oral sex is [low](https://www.cdc.gov/hiv/basics/transmission.html), a person can still take steps to protect themselves if their partner is has HIV.7: A person cannot contract HIV from an old needle

A person should use new a needle each time they inject themselves with prescription or recreational drugs. They should also ensure that a tattooist uses fresh needles before getting a tattoo.

1. Describe the relationship between HIV/AIDS and nutrition

* The relationship between HIV/AIDS and nutrition is a vicious cycle, similar to the relationship between nutrition and other infections. HIV compromises nutritional status, and poor nutrition further weakens the immune system, increasing susceptibility to opportunistic infections (OIs) (CRHCS and SARA Project 2001).
* Potential impact of poor nutritional status leads to
* Increased HIV disease progression
* Further immune decline
* Increased infectious disease morbidity
* Anemia, fatigue, reduced productivity
* Low Birth weight, growth failure
* increased mortality
* Poor nutrition increases the body’s vulnerability to infections, and infections aggravate poor nutrition. Inadequate dietary intake leads to poor nutrition and lowers immune system functioning. Poor nutrition reduces the body’s ability to fight infections and therefore helps increase the incidence, severity, and length of infections. Symptoms that accompany infections such as loss of appetite, diarrhea, and fever lead to reduced food intake, poor nutrient absorption, nutrient loss, and altered metabolism. All of these contribute to weight loss and growth faltering, which further weaken the immune system. An adequate nutrient dense diet, proper hygiene, food safety, and nutrition management of symptoms are critical interventions to break the cycle of infection and poor nutrition.
* HIV and nutrition. HIV infection progressively destroys the immune system, leading to recurrent opportunistic infections and death. Opportunistic infections 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.
* Malnutrition weakens the immune system making the body susceptible to infections
* Infections sometimes make it difficult to eat food and results to mal-absorption of nutrients worsening the status of the immune system.
* Malnutrition can affect the effectiveness of drugs.
* Medication used to manage opportunistic infection sometimes cause negative side effects making food consumption difficult and also interact negatively with nutrients.
* HIV and AIDS can cause stress and depression, which can further depletes nutrient stores in the body.

The relationship between malnutrition and HIV and AIDS results in a cycle, known as the nutrition and HIV cycle.

1. Describe the dietary advice you would give to a mother on the following
2. Nutrition
3. Pregnancy

* The pregnant/lactating woman should eat a wide variety of foods to make sure that her own nutritional needs as well as those of her growing fetus are met.
* There is no particular need to modify the usual dietary pattern. However, the quantity and frequency of usage of the different foods should be increased.
* She can derive maximum amount of energy (about 60%) from rice, wheat and millets. Cooking oil is a concentrated source of both energy and polyunsaturated fatty acids.
* Good quality protein is derived from milk, fish, meat, poultry and eggs. However, a proper combination of cereals, pulses and nuts also provides adequate proteins.
* Mineral and vitamin requirements are met by consuming a variety of seasonal vegetables particularly green leafy vegetables, milk and fresh fruits.
* Bioavailability of iron can be improved by using fermented and sprouted grams and foods rich in vitamin C such as citrus fruits.
* Milk is the best source of biologically available calcium.
* Though it is possible to meet the requirements for most of the nutrients through a balanced diet, pregnant/lactating women are advised to take daily supplements of iron, folic acid, vitamin B and calcium.

1. Breastfeeding

Include protein foods 2-3 times per day such as meat, poultry, fish, eggs, dairy, beans, nuts and seeds.

* Eat three servings of vegetables, including dark green and yellow vegetables per day.
* Eat two servings of fruit per day.
* Include whole grains such as whole wheat breads, pasta, cereal and oatmeal in your daily diet.
* Drink water to satisfy your thirst. Many women find they are thirsty while breastfeeding; however, forcing yourself to drink fluids does not increase your supply.
* Dietary restrictions from pregnancy do not apply to breastfeeding moms.
* Vegetarian diets can be compatible with breastfeeding. If you avoid meat, make sure you eat other sources of iron and zinc such as dried beans, dried fruit, nuts, seeds and dairy. If you avoid all animal products (vegan diet) you will need to take a B12 supplement to make sure your baby does not develop a B12 deficiency.

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

* Frequent questions and comments from neighbors, relatives and financial difficulty are some of the major obstacles a HIV positive mother may encounter in feeding her infant.

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

* Nutrition assessment is the first step in the nutrition care process. Nutrition assessment is the establishment of an individual’s nutritional status using different methods.

Nutrition assessment is useful in;

* Identifying clients with specific nutrition needs (nutritional care/support, dietary/nutrient supplements, medical treatment, referral for further assessment)
* To measure changes in nutritional status to inform optimal approaches, motivate clients to continue practices, and understand program impacts.
* To catch nutritional problems and infections early for quick action to prevent from them worsening.
* To inform/advice on medication and management of drug related side effects.

References:

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2. Fawzi, W. W., G. I. Msamanga, D. Spiegelman, et al. 2004. Randomized Trial of Multivitamin Supplements and HIV Disease Progression and Mortality. New England Journal of Medicine 351:23–32.
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