Operation Triple Zero Plus:
HIV Literacy Package for Adolescents
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<td>DOT</td>
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<td>IPV</td>
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<td>PrEP</td>
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<td>PID</td>
<td>Pelvic Inflammatory Disease</td>
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<td>VMMC</td>
<td>Voluntary Medical Male Circumcision</td>
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<td>WHO</td>
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Introduction

Around 1.2 billion people or 1 in 6 of the world’s population, are adolescents aged 10 to 19 (WHO, 2018). Globally, adolescents represent a significant demographic and socio-economic force and are also a major factor in influencing public health trends. Adolescence is a special stage in any person’s life, representing a period of transformation from childhood into adulthood. It is characterized by major biological, physical, psychological and behaviour changes, which if not properly managed, could lead to significant exposure to risky behaviours with high consequences on the individual’s immediate and long-term health and socio-economic life (AHSP, 2011-2015).

In Zambia, adolescents account for over a quarter (27%) of the total population and have a significant influence on the health trends. They are highly affected by various health problems, including communicable and non-communicable diseases (NCDs), particularly Sexually Transmitted Infections (STIs), including HIV and AIDS; and behaviour-related health problems, including early and unprotected sex, sexual abuse, early marriages and pregnancies, substance and alcohol abuse, accidents and violence, mental health, and unsafe cultural practices. About 32% of adolescents in Zambia aged 15-17 and 60% of those aged 18-19 are sexually active, and therefore face risks from HIV and other Sexually Transmitted Infections (STIs), especially that only 40% of them report regular condom use. HIV prevalence in the adolescent population stands at 3.8% and when further disaggregated according to sex, the prevalence in females is 3.8% versus 1.8 in their male counterparts (ZDHS, 2018)
Operation Triple Zero Plus Programme

In response to these concerning rates of HIV in adolescents and young people, the Centre for Infectious Disease Research in Zambia (CIDRZ) with support from the MAC AIDS FUND is implementing the Operation Triple Zero Plus (OTZ Plus) project which was adapted from a similar intervention in Kenya. OTZ Plus aims to empower Adolescents Living with HIV (ALHIV) between the ages of 13 to 24 with information, skills and tools to adopt behaviours that result in better health outcomes i.e., zero viral load, zero mother-to-child-transmission (MTCT) among pregnant and breastfeeding adolescent girls, and zero teen pregnancies. The OTZ Plus Project's objective is to recruit ALHIV from within the Ministry of Health (MOH) facilities into OTZ clubs and deliver this HIV literacy package to enhance their ability to participate in the management of their own health for better results. In addition to the OTZ clubs, the project is also running an emergency response mobile application (OTZ App) providing a platform where adolescents can obtain quick information on HIV, Sexual and Reproductive Health Rights, chat with a counsellor, and other topics of interest such as healthy diet plans, job opportunities and internships, training opportunities, quizzes, and entertainment updates.

This HIV literacy package was prepared in consultation with ALHIV, and the package relies heavily on a peer-based approach where adolescents are assigned an adolescent peer and together share HIV-related information and tips on getting the most out of their treatment experience through self-monitoring and peer support.
Chapter One: ADOLESCENCE

Purpose:

This chapter explains the physical, social and emotional changes that take place during adolescence, and describes the meaning of adolescence so that adolescents understand themselves better. Adolescents will be able to identify which changes similarly happen in girls and boys and which changes differ by sex; and to identify ways to cope with feelings during adolescence.
What is adolescence?

Adolescence is the time in life when we move from being a child to becoming an adult. It is a period of physical, emotional, and social change. It is a period of sexual development and a time for finding out who you are and what is important to you. A time to think about and plan for your future. Adolescence is both challenging and exciting. It can be a confusing time because sometimes you feel you are treated more like an adult and sometimes you feel you are treated more like a child. You also experience unpredictable emotions and want to test your boundaries as an individual in order to explore and assert your personal identity, learn to navigate peer relationships, and transition to independence.

Who is an adolescent?

An adolescent is a young person who is no longer a child but who has not yet become an adult usually between the ages of 10-19, but also includes young people in the age range of 20-24 years. Therefore, adolescents are not all the same. They exist in a variety of circumstances and have different needs.

Changes during adolescence

The teenage or adolescent years bring many changes, not only physically, but also mentally and socially. During these years, adolescents increase their ability to think abstractly and eventually make and set long-term goals. Each child may progress at a different rate and may have a different view of the world. Adolescence is also a time for growth acceleration and puberty changes. An adolescent may grow several inches in several months followed by a period of very slow growth, and then have another growth acceleration. Changes with puberty (sexual maturation) may happen gradually or several signs may become visible at the same time. There is a great amount of variation in the rate of changes that may happen. Some teenagers may experience these signs of maturity sooner or later than others. If you notice something different with you compared to your age mate, do not despair, it does not necessarily mean there is something wrong with you.

Physical changes

Sexual and other physical maturation that happens during puberty is a result of hormonal changes. In boys, it is difficult to know exactly when puberty is coming. There are changes that happen, but they happen gradually and over a period of time, rather than as a single event. While each male adolescent is different, the following are average ages when puberty changes may happen:

- Beginning of puberty (9.5 to 14 years old)
- First pubertal change (enlargement of the testicles)
- Penis enlargement (begins approximately 1 year after the testicles begin enlarging)
- Appearance of pubic hair (13.5 years old)
- Nocturnal emissions or “wet dreams” (14 years old)
- Hair under the arms and on the face
- Voice change
- Acne (15 years old)

Girls also experience puberty as a sequence of events, but their pubertal changes usually begin before boys of the same age. Each girl is different and may progress through these changes differently. The following are average ages when puberty changes may happen:

- Beginning of puberty (8 to 13 years old),
- First pubertal change (breast development)
- Pubic hair development (shortly after breast development)
- Hair under the arms (12 years old)
- Menstrual periods (10 to 16.5 years old)
There are specific stages of development that both boys and girls go through when developing secondary sexual characteristics. These are the physical characteristics of males and females that are not involved in reproduction, such as voice changes, body shape, pubic hair distribution, and facial hair.

The following is a brief overview of the changes that happen:

In boys, the initial puberty change is the enlargement of the scrotum and testes. At this point, the penis does not enlarge. Then, as the testes and scrotum continue to enlarge, the penis gets longer. Next, the penis will continue to grow in both size and length.

In girls, the initial puberty change is the development of breast buds. This is when the breast and nipple elevate. The areola (dark area of skin that surrounds the nipple of the breast) increases in size. The breasts then continue to enlarge. Eventually, the nipples and the areolas will elevate again. They then form another projection on the breasts. At the adult state, only the nipple remains elevated above the rest of the breast tissue.

Physical Changes
Secondary sex characteristics are changes not directly related to sexual reproduction.

Boys
- The voice becomes deeper
- the Adam’s apple becomes bigger
- The shoulders become wider than the hips
- Hair grows on the face, body and pubic area
- The skin on the upper arms and thighs becomes rough

Girls
- Breasts develop
- The hips become wider than the shoulders
- Hair grows on the underarm and pubic area
Neurodevelopmental changes

Important neuronal developments are also taking place during the adolescent years. These developments are linked to hormonal changes but are not always dependent on them. Developments are taking place in regions of the brain, such as the limbic system, that are responsible for pleasure seeking and reward processing, emotional responses and sleep regulation. At the same time, changes are taking place in the prefrontal cortex, the area responsible for what are called executive functions; decision-making, organization, impulse control and planning for the future. The changes in the prefrontal cortex occur later in adolescence than the limbic system changes.

Psychological and social changes

Linked to the hormonal and neurodevelopmental changes that are taking place are psychosocial and emotional changes and increasing cognitive and intellectual capacities. Over the course of the second decade, adolescents develop stronger reasoning skills, logical and moral thinking, and become more capable of abstract thinking and making rational judgements.

Emotional disorders also emerge during adolescence. In addition to depression or anxiety, adolescents with emotional disorders can also experience excessive irritability, frustration or anger. Symptoms can overlap across more than one emotional disorder with rapid and unexpected changes in mood and emotional outbursts. Younger adolescents may additionally develop emotion-related physical symptoms such as stomach-ache, headache, or nausea.

Changes taking place in the adolescent’s environment both affect and are affected by the internal changes

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<td>Many have temporary breast growth</td>
<td>Breasts develop</td>
<td>Genitals get bigger</td>
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<tr>
<td>First Ejaculation</td>
<td>First Ovulation &amp; Menstruation</td>
<td>Hair grows on body, in armpits and on genitals</td>
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<tr>
<td>Wet Dreams</td>
<td>increase in vaginal &amp; cervical secretions</td>
<td>Become taller &amp; gain weight</td>
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<tr>
<td>Gain in muscular strength</td>
<td>Fat tissue increases</td>
<td>Voice changes</td>
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<td>Shoulders broaden &amp; chest gets wider</td>
<td>Hips, thighs &amp; bottom widen</td>
<td>Skin becomes oiler; may get pimples &amp; acne</td>
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<tr>
<td>Growth of facial hair</td>
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<td>Sweat glands develop</td>
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<td>Moods change quickly</td>
<td>Try to know &amp; understand yourself</td>
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<td>Start feeling sexual attraction</td>
<td>Develop own value</td>
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<tr>
<td>Concerned about being normal &amp; fitting in</td>
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<th><strong>SOCIAL CHANGES</strong></th>
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<tr>
<td>Start having romantic relationships</td>
<td>Become part of peer groups</td>
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<tr>
<td>Become more independent from parents &amp; family</td>
<td>Feel closer to friends</td>
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of adolescence. These external influences, which differ among cultures and societies, include social values and norms and the changing roles, responsibilities, relationships, and expectations of this period of life.

**Stage in Adolescence**

**Early Adolescence (Ages 10 to 14)**

During this stage, children often start to grow more rapidly. They also begin to notice other body changes, including hair growth under the arms and near the genitals, breast development in females and enlargement of the testicles in males. They usually start a year or two earlier in girls than boys, and it can be normal for some changes to start as early as age 8 for females and age 9 for males. Many girls may start their period around age 12, on average 2-3 years after the onset of breast development.

These body changes can inspire curiosity and anxiety in some—especially if they do not know what to expect or what is normal.

Early adolescents have concrete, black-and-white thinking. Things are either right or wrong, great or terrible, without much room in between. It is normal at this stage for young people to center their thinking on themselves (called “egocentrism”). As part of this, preteens and early teens are often self-conscious about their appearance and feel as though they are always being judged by their peers.

Pre-teens feel an increased need for privacy. They may start to explore ways of being independent from their family. In this process, they may push boundaries and may react strongly if parents or guardians reinforce limits.

**Middle Adolescence (Ages 15 to 17)**

Physical changes from puberty continue during middle adolescence. Most males will have started their growth spurt, and puberty-related changes continue. They may have some voice cracking, for example, as their voices lower. Some develop acne. Physical changes may be nearly complete for females, and most girls now have regular periods.

At this age, many teens become interested in romantic and sexual relationships. Many middle adolescents have more arguments with their parents as they struggle for more independence. They may spend less time with family and more time with friends. They are very concerned about their appearance, the opinions of their friends, and peer pressure may peak at this age.

**Late Adolescents (18-19)/ Young adults 20-24**

Late adolescents generally have completed physical development and grown to their full adult height. They usually have more impulse control by now and may be better able to gauge risks and rewards accurately.

Teens entering early adulthood have a stronger sense of their own individuality now and can identify their own values. They may become more focused on the future and base decisions on their hopes and ideals. Friendships and romantic relationships become more stable. They become more emotionally and physically separated from their family. However, many re-establish an “adult” relationship with their parents, considering them more as an equal from whom to ask advice and discuss mature topics with, rather than an authority figure.
Implications for health and behaviour

In many ways, adolescent development drives the changes in the disease burden between childhood to adulthood—for example, the increase with age in sexual and reproductive health problems, mental illness and injuries. The appearance of certain health problems in adolescence, including substance use disorders, mental disorders and injuries, likely reflects both the biological changes of puberty and the social context in which young people are growing up.

Many of the health-related behaviours that arise during adolescence have implications for both present and future health and development. For example, alcohol use and obesity in early adolescence not only compromise adolescent development, but they also predict health-compromising alcohol use and obesity in later life, with serious implications for public health.
Chapter Two: THE REPRODUCTIVE SYSTEM

Purpose:

This chapter explains the male and female reproductive organs, their makeup and how they function. Adolescents will be able to understand their own bodies better.
Chapter Two: The Reproduction System

The reproductive system, also known as the genital system, is the biological system made up of all the anatomical organs involved in the human sexual reproduction.

**Male Reproductive System**
- prostate gland
- seminal vesicle
- penis
- vas deferens
- testis
- scrotum
- urethra

**Female Reproductive System**
- fallopian tube
- uterus
- ovary
- cervix
- vagina

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Female Reproductive System

The female reproductive system is designed to carry out several functions. It produces the female egg cells necessary for reproduction, called the ova or oocytes. The system is designed to transport the ova to the site of fertilization. Conception, which is the fertilization of an egg by a sperm, normally occurs in the fallopian tubes. The next step for the fertilized egg is to implant into the walls of the uterus, thus beginning the initial stages of pregnancy. If fertilization and/or implantation does not take place, the system is designed to menstruate (the monthly shedding of the uterine lining). In addition, the female reproductive system produces female sex hormones that maintain the reproductive cycle.

What Parts make up the female reproductive system?

The female reproductive anatomy includes parts inside and outside the body.

The function of the external female reproductive structures (the genitals) is twofold: To enable sperm to enter the body and to protect the internal genital organs from infectious organisms. The main external structures of the female reproductive system include:

- **Labia majora:** The labia majora enclose and protect the other external reproductive organs. Literally translated as “large lips,” the labia majora are relatively large and fleshy, and are comparable to the scrotum in males. The labia majora contain sweat and oil-secreting glands. After puberty, the labia majora are covered with hair.

- **Labia minora:** Literally translated as “small lips,” the labia minora can be very small or up to 2 inches wide. They lie just inside the labia majora and surround the openings to the vagina (the canal that joins the lower part of the uterus to the outside of the body) and urethra (the tube that carries urine from the bladder to the outside of the body).

- **Bartholin’s glands:** These glands are located beside the vaginal opening and produce a fluid (mucus) secretion.

- **Clitoris:** The two labia minora meet at the clitoris, a small, sensitive protrusion that is comparable to the penis in males. The clitoris is covered by a fold of skin, called the prepuce, which is similar to the foreskin at the end of the penis. Like the penis, the clitoris is very sensitive to stimulation and can become erect.
The Male Reproductive System

- The purpose of the organs of the male reproductive system is to perform the following functions:
  - To produce, maintain, and transport sperm (the male reproductive cells) and protective fluid (semen)
  - To discharge sperm within the female reproductive tract during sex
  - To produce and secrete male sex hormones responsible for maintaining the male reproductive system.

Unlike the female reproductive system, most of the male reproductive system is located outside of the body. These external structures include the penis, scrotum, and testicles.

- **Penis:** This is the male organ used in sexual intercourse. It has three parts: the root, which attaches to the wall of the abdomen; the body, or shaft; and the glans, which is the cone-shaped part at the end of the penis. The glans, also called the head of the penis, is covered with a loose layer of skin called foreskin. This skin is sometimes removed in a procedure called circumcision. The opening of the urethra, the tube that transports semen and urine, is at the tip of the penis. The glans of the penis also contains a number of sensitive nerve endings.

  The body of the penis is cylindrical in shape and consists of three circular shaped chambers. These chambers are made up of special, sponge-like tissue. This tissue contains thousands of large spaces that fill with blood when the man is sexually aroused. As the penis fills with blood, it becomes rigid and erect, which allows for penetration during sexual intercourse. The skin of the penis is loose and elastic to accommodate changes in penis size during an erection.

  Semen, which contains sperm (reproductive cells), is expelled (ejaculated) through the end of the penis when the man reaches sexual climax (orgasm). When the penis is erect, the flow of urine is blocked from the urethra, allowing only semen to be ejaculated at orgasm.

- **Scrotum:** This is the loose pouch-like sac of skin that hangs behind and below the penis. It contains the testicles (also called testes), as well as many nerves and blood vessels. The scrotum acts as a "climate control system" for the testes. For normal sperm development, the testes must be at a temperature slightly cooler than body temperature. Special muscles in the wall of the scrotum allow it to contract and relax, moving the testicles closer to the body for warmth or farther away from the body to cool the temperature.

- **Testicles (testes):** These are oval organs about the size of large olives that lie in the scrotum, secured at either end by a structure called the spermatic cord. Most men have two testes. The testes are responsible for making testosterone, the primary male sex hormone, and for generating sperm. Within the testes are coiled masses of tubes called seminiferous tubules. These tubes are responsible for producing sperm cells.
Chapter Three: SEXUALLY TRANSMITTED INFECTIONS

Purpose:

To learn how sexually transmitted infections (STIs) are spread and how they can be prevented; and to discuss the effects and consequences of STIs; to correct wrong information; and to discuss what to do if you have an STI.
OBJECTIVES:

By the end of the activity, participants will be able to:

☑️ Explain what an STI is and how they are transmitted
☑️ Name at least four different STIs
☑️ List at least three signs or symptoms of an STI
☑️ Explain the link between untreated STIs and HIV
☑️ List at least one possible consequence of not getting treated when you have an STI
☑️ Describe what a person should do if they think they have an STI.
**Chapter Three: Sexually Transmitted Infections**

**Icebreaker**

Materials needed: flip chart paper, marker pens, tape, scissors and Bostik or Prestik, Optional: music player

**Preparation**

Make three signs marked ‘True’, ‘False’ and ‘Don’t Know’ and post them at different places in the room where participants will be able to stand. Find out where people can get tested and treated for STIs in your community and identify any places that provide youth-friendly services.

**Steps**

- Write ‘STI’ at the top of flipchart paper. Ask the participants:
  - What does STI stand for? Write their responses on flipchart paper.
  - How do you get an STI? (Answer: By having unprotected sexual intercourse).
  - Explain that STIs are usually transmitted through unprotected sex, but some can be transmitted from skin to skin contact alone (e.g., herpes and genital warts (HPV)).

- Ask the group to brainstorm the following and list their responses on the flipchart paper:
  - List STIs they know and add any other names for those infections (slang)

If any of the following are missing, add them: gonorrhea; chlamydia; syphilis; herpes; genital warts or human papillomavirus; hepatitis B; pubic lice; and scabies.

- **Note that these are the most common STIs.**

- Point out the signs labelled ‘True’, ‘False’ and ‘Don’t Know/Unsure’ that you posted in the room. Ask the participants to stand up and explain that you are going to read a statement and they should move to the sign that shows how they feel about each statement – if they think it is true, they will move to the ‘true’ sign and so on.

- Read the first statement below and give participants time to move. Ask each group why they are standing under that sign. Then give the correct answer and add to the explanations or information given by the participants as needed. Use the Facilitator Answer Key: STIs – True or False below as a guide to the answers.

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Statements Answer Key

- You will not get an STI if you only have oral sex.

**False:** STIs can be transmitted through oral sex. You can get gonorrhea, in your throat, for example. Herpes and syphilis can also be spread through oral sex.

- Only people who have lots of sex partners get STIs

**False:** Anyone who has unprotected sexual intercourse can get an STI, even if you have only one partner.

- You cannot get STIs from toilet seats.

**True:** The germs that cause STIs cannot live in the open air or outside the human body so you cannot get an STI from a toilet seat.

- Many STIs can be transmitted to babies during pregnancy or birth.

**True:** Some STIs, like gonorrhea, chlamydia, syphilis, herpes, HIV, and hepatitis B and C, can be passed to a baby during pregnancy or birth.

- You can have an STI even if you do not have any signs or symptom.

**True:** In more than half of all cases, a person with an STI has no signs or symptoms that they notice.

- You can tell if someone has an STI by looking at their genitals.

**False:** Because many people do not have signs or symptoms that are noticeable, just looking at their genitals will not tell you if they have an STI or not. However, some people will have signs of STIs that you can see, like sores or warts.

- Some common signs of STIs on or around the genitals include unusual sores or lumps, itching, pain, pain when urinating, bad smells, and/or an unusual discharge.

**True:** These are the most common signs of having an STI.

- Women have more noticeable signs and symptoms than men.

**False:** Women are more likely not to have any noticeable signs or symptoms than men. They may have signs that are inside the vagina or they may have no signs at all.

- STIs caused by viruses cannot be cured.

**True:** STIs caused by viruses (herpes, genital warts (HPV), hepatitis B and HIV have no cure. Those caused by bacteria (gonorrhea, chlamydia, and syphilis) or by parasites (pubic lice and scabies) can be cured.
Basic facts about Sexually Transmitted Infections (STIs)

How STIs are spread: STIs are spread mostly through unprotected vaginal or anal sex. Some can be spread through oral sex, like herpes, genital warts and gonorrhea. Some STIs, like herpes and genital warts (HPV), can be spread through skin-to-skin contact of the genitals. Some STIs, like gonorrhea, chlamydia, syphilis, herpes, HIV, and hepatitis B and C, can be passed to a baby during pregnancy or birth. STIs are passed more easily from men to women than the reverse (because of women’s anatomy). Types of STIs: STIs are caused by bacteria, viruses and parasites. The most common STIs caused by bacteria are: gonorrhea, chlamydia, chancroid and syphilis. They can be cured. The most common STIs caused by viruses are: human papillomavirus or genital warts, herpes, hepatitis B and C, and HIV. They cannot be cured, but most can be treated. The most common STIs caused by parasites are: trichomoniasis, scabies and pubic lice. They can be cured.

Signs and symptoms of STIs: In more than half of all cases, STIs do not have any noticeable signs or symptoms. The most common signs & symptoms of STIs on or around the genitals are: soreness, unusual sores or lumps, itching, pain when urinating, bad smells, and/or an unusual discharge. Women have fewer noticeable signs and symptoms than men. Because STIs often do not have signs and symptoms, many people are not aware that they have one. So, if you have had unprotected sex, you could have an STI and not know it. STIs and HIV: STIs that cause sores (like chancroid, syphilis and herpes) or inflamed or irritated skin make it easier for HIV to be transmitted. When a person has HIV and an STI, they are more likely to pass the virus to their sexual partners.

Consequences of untreated STIs: Having an STI can be irritating, uncomfortable and very embarrassing. Because of shame and embarrassment, some people do not seek testing and treatment and hope the STI will go away on its own. This can lead to serious problems. When STIs are not treated early, they may cause problems like serious infection of the reproductive system (pelvic inflammatory disease (PID) in women or inflammation of the testicles in men), infertility (not being able to get pregnant), cervical cancer (HPV), liver cancer (Hepatitis B and C), serious damage to the nervous and cardiovascular system (syphilis) and even death (syphilis and HIV).

Genital warts (HPV) and cervical cancer: The virus that causes genital warts (HPV) is an important cause of cervical cancer in women. There is now a vaccine against genital warts, so all young women should get vaccinated for genital warts, if possible. Women who have not been vaccinated can get a test, called a Pap smear, to make sure that they do not have signs of cervical cancer. All women should get this test every three years if they can, but it is especially important for women who have genital warts and for women who are HIV positive because they are at higher risk for cervical cancer.

Preventing STIs: Abstinence or not having sex is the surest way to avoid getting an STI. For those who are having sex, using male or female condoms correctly every time you have sex is the only way to reduce the likelihood of getting an STI. In addition to the vaccine for genital warts (human Papillomavirus), there is a vaccine for Hepatitis B.

Unless you are in a monogamous relationship with one partner, you should be tested regularly for STIs. This is even more important if you are not using condoms. At a routine sexual health appointment, you will be tested for a range of infections.

Chlamydia

- This often has no symptoms. If you do have symptoms, they can include pain when peeing or discharge from the penis, vagina or anus. Chlamydia can also infect the throat, causing it to be sore.
- Tests will include a urine sample and swabs of the rectum, vagina and throat, depending on the kinds of sex you are having. A swab of the penis may be taken if you have discharge.
- If you have chlamydia, it can be cured with a short course of antibiotics.
Chapter Three: Sexually Transmitted Infections

Syphilis

- Syphilis involves several stages but often has no symptoms. If you do have symptoms, these can include a painless red sore, rash or fever.
- Your blood will be taken to test for infection, and if you have a rash or sore this will be swabbed.
- If you have syphilis, it can be cured with antibiotics. However, if it is left untreated for a long time, it can cause serious complications.

Gonorrhea

- This often has no symptoms. If you do have symptoms, they can include pain when peeing or discharge from the penis, vagina or anus. Gonorrhea can also infect the throat, causing it to be sore.
- Tests will include a urine sample and swabs of the rectum, vagina and throat, depending on the kinds of sex you are having. A swab of the penis may be taken if you have discharge.
- If you have Gonorrhea, it can be cured with antibiotics. Some strains of Gonorrhea have become resistant to some antibiotics, which can sometimes make treatment a little more complicated.

Hepatitis C

- If you have sex without a condom, you may be tested for hepatitis C. This often has no symptoms.
- Your blood will be taken to test for infection.
- If you have hepatitis C, it can be treated with direct-acting antivirals (DAAs). These are highly effective and cure over 95% of people with hepatitis C.

Candidiasis

Candidiasis, also called yeast infections, candida, white discharge or thrush, is usually not sexually transmitted. In women it is the result of an increase in the natural yeast in the vagina. It is rare in men. Signs of candida include thick white, lumpy discharge; bright red skin on the vulva and in the vagina; intense itching of the vulva and vaginal opening; and discomfort or pain during sex. It can be easily treated and will go away on its own.

Some STIs, like genital herpes and genital warts, are not tested for unless you have symptoms such as sores, blisters or warts on your genitals or anus. These cannot be cured, but symptoms can be managed with treatment. You may also be offered vaccinations. These vary depending on who you are and the kind of sex you have. Anyone, regardless of gender, may be offered vaccination against human papillomavirus (HPV).
Chapter Three: Sexually Transmitted Infections

A sexual health check-up can also identify other rare but potentially serious infections such as the following:

**Lymphogranuloma Venereum (LGV)**
- This is caused by a more invasive type of chlamydia.
- Symptoms may include rectal or anal pain with bloody discharge, fever, swollen lymph nodes (“glands”) in the groin, and pain or discharge from the vagina or penis.
- Testing will usually include a swab from the affected area.
- If you have LGV, it can be cured with a course of antibiotics.

**Shigella**
- Symptoms may include diarrhea, abdominal pain and stomach cramps.
- Antibiotics can cure Shigella, but they may not always be necessary.

**Trichomoniasis**
- Screening is usually not recommended on a penis, as the infection is often transient and symptomless in these cases.
- If you have symptoms, these can include discharge from the vagina or penis, itching, and pain when peeing.
- Tests can include a physical exam and urine sample or swabs from the affected area. Trichomoniasis may also be diagnosed during a Pap test.
- If you have trichomoniasis, it can be cured with antibiotics.

STIs can cause illness, even if you don’t have any symptoms. Left without treatment, they can cause long-term health issues. Also, you can be re-infected after having been treated successfully. Regular sexual health check-ups will help you to keep on top of the situation.

**If you think you may have an STI, do the following:**

1. Go for testing and treatment as soon as you think something is wrong or you notice something that is not right or normal with your body.
2. Tell anyone with whom you’ve had unprotected sexual intercourse. Both of you must be treated to avoid re-infection.
3. Take all of the medicine given to you by the doctor, even if you feel better. You can start to feel better before the infection is completely gone.
4. Go back for a check-up to make sure the infection is gone, even if you feel better.
5. Avoid sex or use a condom each time you have sexual intercourse until you are cured. After you are cured, continue to use condoms to protect yourself from getting another STI.
6. If you get an STI that cannot be cured, always tell your sex partners about the infection before you have sex with them and always use condoms. Remember that anyone can get an STI.

STIs happen because people are still engaging in unprotected sexual activity. They are common among adolescents. If a person suspects that s/he may have an STI, s/he should go for treatment rather than ignoring it. A person with an STI is more likely to get HIV and to spread HIV to others.

Although you may feel scared or nervous to go to a clinic, it is the best thing to do to make sure that you are properly treated.
Chapter Three: Sexually Transmitted Infections

If a person suspects that s/he may have an STI, s/he should go for treatment rather than ignoring it.
Chapter Four: HIV and AIDS

Purpose:

This chapter explains some basic but complex issues about HIV and AIDS, including how the immune system works and the way that HIV makes people sick.
**What is HIV?**

HIV is a virus that weakens the immune system, which is the internal system that defends the body against disease. Your immune system is supposed to protect you from infections, but HIV can sneak past it and then attack the body from the inside. If the immune system becomes weak enough, you can become sick from other infections.

HIV stands for human immunodeficiency virus. The term immunodeficiency means a weakened immune system. People who have been infected with HIV are called HIV-positive (sometimes written HIV+).

**What is a virus?**

Viruses (like HIV) are the very simplest and smallest of all living things—even smaller than bacteria and other germs. In fact, it’s hard to say whether viruses even count as living things at all, since they can’t reproduce on their own. To reproduce, viruses need to infect living cells and fool them into making more viruses. These newly formed viruses then go on to infect other cells. When describing how viruses like HIV reproduce, we use the term “replicate”.

HIV is a virus that can infect cells of the immune system, including CD4+ cells—the very cells that are supposed to fight off infections. That is what makes HIV dangerous.

**What is AIDS?**

AIDS stands for acquired immunodeficiency syndrome. If HIV is not treated with anti-HIV drugs, the immune system generally becomes weaker over time. Eventually, you can become sick with a life-threatening infection, at which point you are said to have AIDS.

With early diagnosis and proper treatment with anti-HIV drugs, people with HIV can avoid getting AIDS and stay healthy for a long time.

Many people now refer to HIV disease or chronic HIV infection instead of AIDS. This reflects the fact that AIDS is now a much less common outcome of HIV infection.

Before effective anti-HIV drugs were available, progressing to AIDS and eventually death was the inevitable outcome of HIV infection for most people. However, with effective anti-HIV drugs (ARVs), HIV disease can be controlled and does not progress toward life-threatening illnesses. Anti-HIV drugs can halt the progression toward AIDS in people with HIV who are healthy, and it can also help people who have become sick with AIDS-related life-threatening infections to get better and stay healthy.

**How is HIV transmitted?**

HIV infection happens when enough HIV from an HIV-positive person gets into an HIV-negative person’s body. This cannot happen through casual contact, such as shaking hands, sneezing or touching a doorknob or toilet seat. HIV infection only happens when body fluids with a high enough amount of virus get into the HIV-negative person’s body.

Only four body fluids may contain enough virus to infect someone else: blood, semen (including pre-cum), vaginal fluid and breast milk. Infection can happen during sex, sharing needles and other equipment used to inject drugs and during pregnancy, childbirth or breastfeeding.

There is little or no risk of HIV being transmitted through unbroken skin. However, transmission can happen much more easily through the mucosal membranes. These are the wet linings of body cavities like the vagina, rectum and urethra (the “pee hole” in a man’s penis or a woman’s vulva). HIV can infect cells in the lining of the vagina, rectum and penis even if the tissues are healthy. Having a sexually transmitted infection like herpes, gonorrhea or syphilis can make it even easier to transmit (or be infected by) HIV. So can any other damage to these tender tissues, which can easily happen during sex.
Sexual activities that can easily lead to HIV transmission are called high risk. High-risk sexual activities include vaginal or anal intercourse:

- without a condom, or
- without effective treatment with anti-HIV drugs to reduce to undetectable the amount of HIV in the blood of a person with HIV and make them unable to transmit HIV, or
- without the use of certain anti-HIV drugs to protect an HIV-negative person from HIV (often referred to as PrEP, or pre-exposure prophylaxis)

Some sexual activities, such as oral sex, pose only a low risk of HIV transmission. While these activities can lead to HIV transmission, the chances are much smaller than they are with high-risk activities. Other sexual activities pose no risk for HIV transmission. These include kissing (if no open sores in the mouth), hugging, etc.

HIV can also be transmitted if you share needles or other equipment to inject drugs such as heroin, crack, steroids or hormones.

It is important to be aware of these risks, and ways to minimize them, so that you can prevent HIV infection or passing it on to your sexual partners or anyone you share drugs with. It is also important for you to protect yourself from reinfection with HIV, as this could further damage your immune system or expose you to a strain of HIV that is resistant to certain kinds of anti-HIV drugs (see HIV Treatment).

How do you know if you have HIV?

In order to find out if you have been infected with HIV, you need to have a blood test or perform an HIV self-test (using oral fluids). Both the blood test and oral tests test for HIV antibodies.

Antibodies are produced by the body as a reaction to infection with HIV. An HIV antibody test looks for the presence of these antibodies in the blood. In a standard HIV test, a needle is inserted into a vein in the arm and a sample of the blood is taken. It is sent to a lab to be tested for the presence of these antibodies. Rapid HIV tests are also available. The entire process with the rapid tests, including taking a drop of blood from the finger, along with HIV counselling before and after the test, takes about 20 minutes. The results that you receive from the rapid test are very accurate.

Since HIV antibody tests look for antibodies and not the virus itself, you need to wait to be tested until HIV antibodies are made by the body.

The period of time from when you are infected with HIV to when antibodies appear in the blood is often called the window period. During the window period, the HIV test may give a negative result even though you have HIV.

Current HIV antibody tests can detect HIV infection in 50% of people by 18 days after infection; 95% of people by 34 days after infection; and 99% of people by one and a half months after infection. Some tests used have an even shorter window period, but the rapid test has a slightly longer window period. Talk to the doctor or HIV tester about the window period for the test being used.

A positive test result means that you have been infected with HIV. You can transmit the virus to people if you have unprotected sex or share needles or other drug-use equipment with them. A positive test does not mean that you have AIDS or that you will get it. It does not give you any additional information about the state of your health.
How to prevent HIV infection

In Zambia, the most common mode of HIV transmission is heterosexual sexual intercourse followed by mother to child infection. Steps that people can take to reduce the risks of HIV transmission:

- Abstain from sex unless one can effectively use condoms
- Use condoms consistently whenever they have sexual intercourse even with a trusted partner
- Reduce the number of sexual partners to just one, but still using condoms unless their HIV status (negative) is verified
- Avoid sex with people who may have multiple partners
- Women should start their antenatal clinic as soon as they discover that they are pregnant
- Be faithful to one sexual partner and ensure that s/he is safe and protected
- Teach adolescents about reproductive health issues; waiting until they are much older may be too late

How the immune system works

Germs are all around us (and often inside us). They are not always bad. Some are even helpful; for instance, the intestinal tract is loaded with “friendly” bacteria that you need for proper digestion.

Many kinds of germs, however, can make you sick—from mild, passing illnesses like a cold, to serious or even fatal infections. Fortunately, the immune system usually protects you from germs by recognizing those that do not belong in the body and destroys them.

Your body’s first line of defence is the skin. The skin covers the outside of the body, acting as a physical barrier to germs. If there are breaks in the skin, even very small ones, they can provide vulnerable spots where viruses and other germs can enter the body.

Your mucous membranes are the soft, wet linings of the mouth, nose, genitals and anus. The mucous membranes also defend the body on the cellular level against germs. This cellular-level defence is called mucosal immunity. But mucous membranes are not a perfect barrier. Small breaks and thinning in these membranes can create entry points into the inside of the body for viruses and germs. And some germs can pass through a healthy membrane.

Luckily, there’s far more to the immune system. The immune system is made up of chemicals, cells, tissues and organs. The most important elements are white blood cells. These white blood cells patrol the body, moving through the blood and lymphatic system.

Your circulatory system, made up of the heart and blood vessels, carries blood to all the organs and tissues of the body. Your lymphatic system carries a clear fluid called lymph to different parts of the body. Lymph sweeps germs into the lymph nodes located in the armpits, neck, abdomen and groin. There, immune cells attack the germs.

When you are fighting off the flu or other infection, you can often feel swollen lymph nodes in the throat and groin. This is a sign that the immune system is actively fighting the infection.
Chapter Four: HIV and AIDS

CD4+ cells play a central role in the immune system. Different kinds of white blood cells work as a team to recognize and destroy intruding germs. They also co-ordinate all the other parts of the immune system to provide an organized response. Specialized white blood cells also search for any of the cells that are already infected. They destroy these cells to prevent infection from spreading further.

How can HIV make you sick?

Unfortunately, CD4+ cells are also one of HIV’s favourite targets. HIV attacks and destroys CD4+ cells, which are one of the most important parts of the immune system. This eventually leaves the immune system weak and unable to defend you against serious illnesses.

When the immune system becomes weakened enough by HIV infection, other infections can become serious or deadly problems.

The body fights back by constantly producing new immune cells. However, over time, the virus tends to win out. The immune system becomes less and less able to suppress HIV and other infections. It also becomes less able to control the spread of certain types of cancer cells. When the immune system becomes weakened enough by HIV infection, these other infections and cancers can become serious or deadly problems.

If you are not treated with anti-HIV drugs after being diagnosed, HIV moves or progresses through several distinct phases. Some people progress very quickly, while others live with HIV for years without developing a life-threatening infection.

With effective HIV treatment now available, most people diagnosed with HIV and treated with anti-HIV drugs remain healthy.
First stages of HIV infection

Primary infection refers to the time when you are first infected with HIV. Many people are not aware that they are even infected with HIV at this point. Nonetheless, during this stage the virus multiplies rapidly. Within two to four weeks after infection, you may experience flu-like symptoms such as fatigue, fever, sore throat, swollen lymph nodes, headache, loss of appetite or skin rash. During this period, the immune system is learning to recognize HIV. This illness usually lasts less than two weeks, although it can last as long as 10 weeks. Not everybody has these symptoms, so they are not a reliable way to tell whether or not you have been infected. However, if you have these symptoms after unprotected sex or share needles or other drug-use equipment, speak to the doctor immediately and arrange for an HIV test. Research shows that the sooner you are diagnosed and begin treatment after infection with HIV, the healthier the body will likely remain.

During this period of seroconversion, the immune system is learning to recognize HIV. It has not yet developed killer proteins known as antibodies to attack the virus in any significant way. This means that:

- the amount of virus in the blood (the viral load) may be very high.
- the CD4+ counts may drop until the body responds to the new infection.
- standard HIV tests could show that you are not infected even though you actually are. This is because the tests look for HIV antibodies, which the body has not developed at this stage.
- you can still pass HIV on to someone else. In fact, you are more likely to pass the virus on to others if you are newly infected and untreated, because there is so much HIV in the body.

When the body develops antibodies to HIV, this is known as seroconversion. This usually happens one to three months after infection. The blood test for HIV, which actually looks for the antibodies, not the virus itself, will only give positive results after you seroconvert.

Around this time, the viral load will come back down after the high spike seen during the primary infection period.

Next stages of HIV infection

If untreated, HIV rapidly makes copies of itself and infects new CD4+ cells. The body tries to counterbalance this loss of CD4+ cells by creating new, healthy ones. In most cases, the virus eventually overburdens the immune system.

Even if undiagnosed and untreated for HIV, you may feel perfectly well for a long time during the stage of HIV infection that follows seroconversion. Although the immune system has not eliminated the infection, it is able to more or less hold its own against it, meaning the virus and the body now co-exist in a kind of standoff. Your CD4+ cell counts, and viral load will remain relatively stable, although the viral load may go up if you are fighting off other infections such as a cold or the flu. Many people have no symptoms of HIV disease, which is why this stage is sometimes called asymptomatic infection.

This is the longest stage of HIV infection. In many people, it can last 10 or more years, while in others, it may be a shorter period of time. During the asymptomatic infection phase, HIV is rapidly making copies of itself (replicating) and infecting new CD4+ cells. Your body is trying to counterbalance this loss of CD4+ cells by creating new, healthy ones. As long as the body can replace those CD4+ cells infected by HIV with healthy ones, the immune system will remain strong. In most cases however, if left untreated, HIV eventually starts to win this battle. The strength of the immune system is measured by the number of CD4+ cells or CD4+ count.

Without anti-HIV treatment, the virus overburdens the immune system, the CD4+ cell count drops and you are at increased risk for developing symptoms of HIV infection. These can include swollen lymph nodes, night sweats, fever, diarrhoea, weight loss and fatigue. You may develop infections like thrush or persistent vaginal yeast infections. These are all signs that HIV infection is progressing.
Statements about how you get HIV:

- A person can get HIV if they have sex without using a condom. (True)
- A person can get HIV by using needles or razors that were used by someone else. (True)
- A person can get HIV from a mosquito that bit someone with HIV before. (False)
- An HIV positive woman who is pregnant can pass HIV to her baby. (True)
- An HIV positive woman who breastfeeds can pass HIV to the baby. (True)
- HIV can be transmitted through witchcraft. (False)
- I can get HIV by being around people who are HIV positive. (False)
- Condoms can spread HIV. (False)
- A person with a sexually transmitted infection can get infected with HIV more easily. (True)

Statements about preventing HIV:

- Not having sexual intercourse is one way to protect yourself from HIV. (True)
- Using contraceptive injections is one way to protect yourself from HIV. (False)
- Always using condoms correctly and consistently with sex partners greatly reduces your risk of getting HIV. (True)
- Pulling the penis out before the man ejaculates is one way to protect yourself from HIV. (False)
- Having sex with only your regular partner will protect you from HIV. (False)
- If a person is not in a high-risk group, they do not need to worry about getting HIV. (False)
- A person does not need to worry about getting HIV because there is now a cure. (False)
- There is a vaccine to prevent HIV infection. (False)
- A person taking medicines for HIV cannot spread the virus. (False)
- A pregnant woman who is HIV positive can take medicine to protect her baby from HIV. (True)
- If a person and their partner both have HIV, they do not need to use condoms. (False)
- Having unprotected sex with a person who is healthy, and fit is safe. (False)

Tiebreaker statements:

- If you have HIV, you will know you have it. (False)
- Getting circumcised will protect a man from HIV. (False)
- An HIV positive woman can have a baby who does not have HIV. (True)
- HIV can survive outside the body for about a day. (False)
- If you have a negative HIV test, you may still be HIV positive. (True)
- If you have HIV, you can get infected with HIV again. (True)
Chapter Four:
HIV and AIDS

Be faithful to one sexual partner and ensure that s/he is safe and protected
Chapter Five: HIV TREATMENT

Purpose:

This topic talks about how Antiretroviral drugs work, goals and benefits of taking them and how they improve immunity. At the end of this topic, you should know how HIV treatment affects immunity, what causes some drugs not to work and how some drugs affect you.
Antiretroviral Drugs (ARVS)

Antiretroviral drugs are medicines which are prescribed to help eliminate HIV particles from the blood. If taken correctly, with good adherence, antiretroviral drugs often result into significant viral suppression to a stage where the HIV becomes undetectable in the blood. According to 2018 HIV Treatment Guidelines by the Ministry of Health, persons who test HIV positive must be commenced on treatment immediately. When taken correctly, ARVs are known to improve the quality of life thereby enabling the person to continue living a healthy and productive life. Antiretroviral drugs should be taken every day for life, following the health care provider’s instructions. Like all medicines, antiretroviral drugs have side effects, however, these do not last for a long time and can easily be dealt with if one follows instructions on how to deal with them.

How do ARVs work?

1. ARVs reduce the viral load: (Stop HIV from invading immune cells, Slow down the viral replication in the infected immune cell)
2. ARVs improve the immune functioning
3. ARVs reduce the occurrences of opportunistic infections
4. ARVs increase vitality
5. ARVs improve the general health status of an individual

Goals of ART

- Maximal and durable suppression of HIV replication
- Restoration and preservation of immune function
- Restoration of normal growth and development in children
- Reduction of HIV related illnesses and death
- Improved quality of life
- Back to school, work, business.

Advantages of Starting ART Earlier:

1. You prevent CD4 decline
2. You prevent escalation of opportunistic infections
3. You protect the brain & other vital organs
4. You preserve immune response to HIV (HIV immune response does not improve on therapy)
5. Children generally respond very well to ART

Important considerations when taking ART

1. ART is life long
2. Requires adherence and discipline (compliance & commitment to treatment)
3. Regular medical check-up for infections, allergies, drug interactions. etc.
4. Regular biochemical check-ups:
   • Full Blood Count
   • Viral load count
   • CD4 count
   • Liver Function Test
   • Kidney Function Test.

5. Requires good diet, plenty of fluids and rest
6. Should use condoms to reduce chances of re-infection and cross resistance of ARVs.

**Causes of ARVs drug resistance**

1. Incomplete treatment
2. Inadequate dosage
3. Mutation (changing characteristics of the HIV virus).
4. Mono therapy (using a single drug)
5. Being infected with a drug resistant type of HIV

**What do ARVs do to the body?**

The main treatment for HIV is a class of drugs called antiretrovirals. These drugs do not cure HIV, but they can reduce the amount of virus in the body of someone with HIV. This keeps the immune system strong enough to fight off disease.

**Can ARVs make me sick?**

Many people experience some mild side-effects, particularly in the first few days and weeks of starting treatment. For example, you might feel sick or have a headache. Although unpleasant, most side-effects should improve and go away altogether as the body gets used to taking the drug. Some of these side effects include headaches, stomach pain, dizziness, shivers or tremors, loss of energy, fainting, sweating, and rapid heartbeat.

**Common side effects of ARVs**

- Stomach upset leading to nausea, vomiting, diarrhoea or constipation
- Anemia (associated with AZT)
- Skin rashes, Dizziness and or drowsiness
- Headaches, Increased appetite
- Anxiety, dysphoria and bad dreams (associated with Efavirenz)
- Rheumatism - Pain, stiffness or soreness in joints (associated with Lamivudine)

Other side effects include Immune Reconstitution Inflammatory Syndrome (IRIS), which is a condition that happens when a previously suppressed immunity becomes reactivated using ARVs. When the reactivated immune system starts fighting dormant opportunistic infections (OIs), the individual will experience symptoms of ill health such as headaches, diarrhoea, sweating, high fever and vomiting. To avoid IRIS, all clients who are eligible for ART must be thoroughly screened and treated for OIs prior to initiating ART.
Body Weight Changes

The causes of body changes in HIV are not fully understood. In some cases, body changes may result from some combination of drug side effects, changes in the body that occur when antiretroviral therapy leads to a stronger immune system and the effects of HIV disease itself, especially how HIV affects the ways in which the body stores and uses blood fats. In other cases, these body changes are the same type seen in HIV-negative people and are the result of an unhealthy diet, lack of exercise and aging.

Along with the gradual slowing of metabolism that is common as we grow older, weight gain can happen in people with HIV in the same way and for the same reasons as it does in people who do not have HIV. People with HIV, like everyone else, can simply gain weight as a result of eating too much of the wrong foods, not exercising or both. However, there are several factors related to HIV disease that can lead to weight and body changes that are part of the lipodystrophy syndrome.

Some people with HIV will lose weight. Planned weight loss can be the result of exercise and diet. Unintentional weight loss has many possible causes and can be HIV-related or not. Common causes include:

- depression, which can cause you to lose interest in eating
- hyperthyroidism, a condition caused by an overactive thyroid that causes you to burn calories quickly
- problems with the mouth, teeth or throat that make eating painful
- using street drugs
- infections, including those caused by parasites
- cancer

The most extreme form of weight loss is HIV-associated wasting. Although this is seen much more rarely than in the past due to improvements in HIV diagnosis and treatment, it does occur, especially in those who are diagnosed late. HIV-associated wasting is a complex problem that requires a multi-step approach, including antiretroviral therapy; appetite stimulation, if needed, and appropriate diet supplementation to boost calories and provide nutrients; hormone replacement therapy, particularly testosterone, as appropriate; glutamine supplementation; treatments for anything that affects food intake and absorption, such as nausea or problems of the mouth; treatments for any infections; and in advanced cases, human growth hormone therapy.

Drug interactions

Sometimes when people take medications for more than one condition at the same time, these medications react with each other. This reaction is called a drug interaction. An example of a drug interaction occurs when one medication affects how another is absorbed, used or flushed out of the body. In some cases, this can be a problem.

Drug interactions can have several effects. One is that one drug can slow down the breakdown of another drug in the body. This can increase the level of that drug in the body, which can improve its efficacy but can also lead to more intense side effects or even toxicity. A drug interaction can also have the opposite effect. Sometimes one drug will speed up the breakdown of another. In this case, the second drug’s effectiveness can be diminished. If the affected drug is an antiretroviral medication, this can lead to drug resistance and fewer treatment options for the future.

Drug interactions are not always obvious and can take various forms. Some occur immediately after the drugs are combine and other interactions do not cause any noticeable problem for weeks or longer.

Ask your doctor, or pharmacist to check for possible interactions with other drugs or treatments, including herbs and supplements, that you may be using. Many pharmacies now have on-line programs that check for possible drug interactions. However, if you obtain your prescriptions at more than one pharmacy, be sure each pharmacist is aware of all the other drugs you are taking.
Chapter Six: ADHERENCE

Purpose:

This topic looks at what adherence is, benefits and barriers of adherence. At the end of this topic, you should be able to understand the importance of adherence, factors affecting adherence as well as how to overcome barriers to adherence.
What is Adherence

Adherence means sticking to the agreed mode of operation or procedure. In HIV treatment, it refers to:

- Taking the right drug with the right dose at the right time and with the right frequency and in the right way
- Adherence implies an informed choice. It involves a relationship of trust between the child/family/caregiver and healthcare provider
- Compliance is different from adherence. It means following instructions or orders without the option of asking questions

In terms of HIV counselling, adherence may also imply that the client sticks to the game plan to:

- Notify their sexual partner about their status
- Protect their sexual partners from infection
- Use protection such as condoms, PrEP or abstaining if not sure
- Support their partners through an HIV test
- Protect themselves from getting reinfected

Adherence counsellors

Adherence counsellors are primarily psychosocial counsellors. Their main roles are to:

- Encourage and support clients to go through the treatment process
- Fix clinic appointments for the clients
- Trace and encourage defaulting clients
- Diffuse stigma related to being HIV positive
- Carry out differentiated HIV Testing Services

Adolescent issues affecting Adherence

Adolescence is often a time of confusion, Sexual & mental development, time of rapid growth and development. Hence when it comes to HIV treatment adherence, the main factors that affect adolescent adherence include:

- Peer pressure
- Low self-esteem
- Alcohol and substance abuse
- Fear
- Lack of understanding
- Drug side effects

Benefits of adherence

- Reduced viral load
- Increased immunological status (CD4 count)
- Improved quality of live
- Longer life to become an adult
- Able to participate in normal activities

NB: Adherence Counselling is important. Support groups also play a vital role in supporting adherence among group members.
Chapter Six: Adherence

Strategies to promote Adolescent Adherence

- Ensure disclosure especially to those who are significant to his/her life e.g. best friend, school teachers, youth group leader etc.
- Connect them with an HIV adolescent support group
- Help them to become confident in taking their ART and to maintain a positive attitude towards their treatment
- Make them responsible for their medication with support from an adult
- Get them to document when they take their medication: self-report
- Ensure that they understand why their medication is so important

Consequences of Poor ART Adherence

- Drug resistance: This creates limited options for future therapy
- Treatment Failure: This leads to the following problems: susceptibility to potentially fatal opportunistic infections
- High viral load which increases the probability of transmission
- Unnecessary healthcare costs

**NB:** Adolescents are vulnerable and easy to manipulate through things such as false prophets and internet or false information on social media. It is very important that adolescents only get HIV information from reliable sources e.g doctor, nurse, peer educators at clinic or youth friendly space, health programs on TV and radio, etc.

**SUMMARY**

- Effective adherence counseling requires the combined support of the client, family and health care provider
- Adherence counseling and disclosure are important when starting ARV
- Assessing for adherence and identifying potential barriers is necessary before commencing ARVs
- Potential barriers need to be addressed and acted on
- Adherence counseling for adolescents requires a multidisciplinary team approach
- Ongoing assessment and counselling should be part of follow-up of patients for ARV adherence
Talking to your doctor about side effects

Many people do not bring up all their current problems when they meet with their doctors. This can be because of the limited time available during a clinic visit. Some people feel that all they have time to discuss with their doctors is their latest lab results, and not all doctors will specifically ask questions about side effects.

If you feel you want more time to discuss the side effects of your treatment, book a separate appointment to discuss the issue. Or consider your pharmacist as another source of information. Pharmacists have a broad base of knowledge about drug side effects and most have computerized systems that put a great deal of information at their fingertips. Your pharmacist can be a valuable resource.

It is crucially important that you bring up the topic of side effects. If you don’t mention that you regularly experience diarrhea or that your fatigue never seems to go away, then your doctor can’t offer help. Do not minimize your symptoms when you are discussing them. Be very clear on the extent of the problem. Feeling like you don’t want to make a fuss, or vaguely mentioning a problem without really describing how difficult it is for you, is not appropriate in this situation. Your doctor could conclude the problem is minor when, in fact, it’s a big concern for you. The one problem that is certain not to be addressed by your doctor is the one that you don’t mention.

With full information, your doctor can fully understand what could be contributing to a side effect and develop a plan to treat it. This can include multiple steps, depending on what possible causes have been identified.

Tracking how you are feeling

You must be in touch with your body so that you’re clear on what you are experiencing and can describe it to your doctor. This leads us to the two most important rules:

**Rule #1:** Tell your doctor everything, from beginning to end. If a symptom appears, changes, disappears or reappears, tell your doctor what’s up. Write it down so you do not forget.

**Rule #2:** Always apply Rule #1.

It can be helpful to keep a symptom diary so you can show your doctor a record of everything you have been experiencing. Keeping a daily record as you experience symptoms is better than trying to remember them later.

The key things to report to your doctor about any given symptom are these:

**Frequency:** How often do you experience it? Is it something you only notice a couple of times a month? Multiple times every day? All day, every day?

**Intensity:** Is this a minor problem or something severe? If you rank it on a scale from one to five, where does it fall? If the intensity varies, noting this in detail with each occurrence can be part of the daily record you keep.

**Duration:** Is this a problem that lasts only a few minutes, or does it continue over many hours or days? When it happens, does it come and go, or does it continue without a break?

**Pattern:** Can you identify any pattern related to when and why the symptom occurs? Does it only happen at a certain time of day? Does it occur shortly after you take your drugs? If it’s a stomach or gastrointestinal symptom, is there any pattern related to eating particular foods or beverages? Does your level of physical activity affect it? Does it only occur at night?

**Treatment:** Is there anything you have found that helps? Perhaps most importantly, tell your doctor if
a side effect is adversely affecting your life in important ways. If you have taste changes that make food unappealing, with the result you don’t want to eat, that’s important. If you have diarrhea so often it keeps you from leaving the house, that’s important. This is true for the whole list of symptoms that can cause undesirable changes in your life.

The benefits of subduing side effects

The goal here is to create an approach that will allow you to benefit from your drugs while avoiding the side effects that can make taking them difficult. There are two potentially huge benefits to this approach:

First, you are much more likely to properly adhere to your antiretroviral therapy, which means sticking to your drug schedule and taking your drugs exactly as prescribed and directed. Always taking your drugs as directed (instead of skipping the Sunday morning pills because you’ve been invited to lunch and don’t want to be sick to your stomach) means you’re much less likely to experience drug resistance. That means the ability of your drugs to keep you healthy can remain effective for years.

And last, but most assuredly not least, your quality of life can be immensely improved when difficult side effects are eliminated or lessened. It’s all about living well with HIV, not just longer.

The other consideration is the possibility of drug side effects on the developing fetus in someone who is pregnant. National guidelines recommend antiretroviral therapy during pregnancy, both for the health of the parent and to help prevent HIV transmission to the baby. However, certain drugs are known to cause side effects in pregnancy and others may harm the foetus and so should be avoided. If you are pregnant, consult your Doctor on this.
Chapter Six:
Adherence

The key things to report to your doctor about any given symptoms include Frequency, Intensity, Duration, Pattern and Treatment.
Purpose:

This chapter focuses on Viral Load and viral load testing. It defines what viral load is and it explains why it is very vital for an HIV positive person to know their viral load. By the end of this chapter, one must clearly understand how important viral load suppression is and how one can successfully suppress their viral load.

For a person living with HIV, knowing the Viral Load in the body is an important part of their care and treatment plan. The Viral Load test should be done at least once every year, and it will be one of several factors that the person living with HIV and the Doctor (or Clinician) will look at when deciding how to manage the health of the client.
What is a Viral Load Test?

A Viral Load test is the measurement of the amount of HIV in a person’s blood. A sample of blood is sent to a laboratory, where the number of copies of the virus is measured. A viral load test result is given as the number of copies/milliliter (copies/ml) of blood. The lower the number, the less virus there is in the blood. Numbers can range from over 1,000,000 copies/ml to undetectable.

Types of Viral Load tests include:

- PCR – Polymerase Chain Reaction (written as PCR RNA). This is the most widely used type of test.
- DNA – branched DNA.
- NASBA – Nucleic Acid sequence-based amplification.

Viral Load Suppression

Viral Load suppression is about ensuring a person’s Viral Load is kept below 1000 copies/ml. This is a good indication that the person is adhering well to ARVs and well on their way to achieving an undetectable viral load.

Unsuppressed Viral Load

Many different factors can affect viral load, such as the progress of HIV infection, a person’s overall health, and whether or not treatment is working. An Unsuppressed Viral Load is one whose result indicates that there are 1000 copies/ml or more present in a person’s body. A physician/doctor will try to find the cause of the rise in viral load by looking at the clients past viral load tests and by searching for other clues. Once a rise in viral load has been noticed, the physician may ask the client to have another test done right away. The second test helps to check whether the rise in the viral load is temporary or a consistent trend.
Temporary changes in viral load can have many causes. For example:

- Sometimes, the viral load may become detectable on a single test and then go back to undetectable on the next test. This is called a “blip” and it is normal.
- The viral load may rise temporarily if one has a cold or other brief illness, or after a vaccination. One might need to wait a month after a vaccination (or an illness) before doing another viral load test.

If the rise in viral load cannot be explained any other way, it might be a sign that the client and the doctor (or clinician) need to look at the client’s treatment plan.

**What does a consistent rise in Viral Load mean?**

A consistent rise in viral load for a person on treatment may be a sign that the ARV drug combination they are on is failing. Together, the client and the doctor (or clinician) will discuss the possible reasons for this and what to do next.

A person’s viral load may rise if they are not taking all doses of their medication, every day, as prescribed. Most people on treatment take pills only once or twice a day and find they can fit taking ARVs into their lives. However, missing doses can still happen, especially if one is depressed, anxious, frustrated or using alcohol or street drugs. If a person is having difficulties taking medications as prescribed and directed, they should seriously consider getting help because sticking to the pill schedule (or “adhering” to it) is one of the most important aspects of HIV treatment. Missing even one dose can let drug levels in a person’s blood drop so low that the virus can start to replicate again.

Sometimes the side effects of an ARV drug can make it difficult to take all the doses as prescribed. Nausea is an example. It is important to talk to a physician about side effects, because they can be managed.

Sometimes, even if all the doses are taken, there is something stopping the drug from working in the body. It may be that the body cannot absorb the drug, or that another drug that the person is taking is blocking the anti-HIV drug from working. The doctor or clinician must be informed about all the prescription medications, over-the-counter products, herbal therapies, supplements and any street drugs that a client is taking.

Finally, a significant rise in viral load may be a sign that the virus is replicating even in the presence of ARV drugs. This means a person has become resistant to at least one drug in the combination. Resistance to an anti-HIV drug is a problem because it means that the drug cannot not be used to keep the viral load low. Poor adherence can lead to drug resistance.

**What is an Undetectable Viral Load?**

An undetectable Viral Load is where consistent adherence to prescribed treatment results in the reduction of the HIV to such small quantities that it can no longer be detected by standard blood tests. An undetectable viral load does not mean that a person has been cured of HIV, the virus is still in the body!

However, people who are adherent to care, taking HIV treatment and have an ongoing undetectable viral load are substantially less likely to transmit HIV to others. In fact, studies show that people who maintain an undetectable viral load do not pass HIV to their sexual partners.
Why is Viral Load Testing Important?

The viral load is a measure of how active HIV is in the body. The virus kills white blood cells called CD4 cells, which are an important part of a person's immune system. When the viral load is high then the CD4 count goes down, the immune system weakens, and the person is more likely to become sick.

When a person starts anti-HIV treatment (commonly called ART), the viral load test is used to measure how well the treatment is working. One of the goals of ART is to have an undetectable viral load, so that the immune system can begin to repair itself. A person with HIV should have a viral load test every three to six months (initially) and then yearly for those whose Viral Load is 'Suppressed' or 'Undetectable'. The test results are used to monitor how well the HIV treatment is working and determine whether or not one may need to be put on a different ARV drug.

It is important for people to note that even low levels of HIV in the body can cause inflammation (illness) which can cause damage to the body. It is recommended that people start treatment as early as possible after they have tested HIV Positive. This helps reduce the damage that can be caused by HIV-related inflammation.

Where can one get more information?

Doctors, clinicians, nurses and other healthcare workers are good sources of information. They are best placed to answer questions about viral load testing. If you are on HIV treatment, you can ask the clinician or doctor about your viral load at your next clinical visit. Its your right to know and track your viral load status. You can even ask for a viral load test to be done for you if it was not recently done.

THINGS TO KNOW ABOUT VIRAL LOAD (SUMMARY)

- A viral load test measures the number of copies of the virus present in a blood sample. It is reported as copies/ml.
- Viral load is a sign of how active HIV is in a person's body. A lower number means the virus is less active.
- Viral Load should be tested regularly (at least once a year).
- Even low levels of HIV in the body can cause inflammation and cause damage. This is one reason why early treatment is always recommended.
- If a person is taking ART and has an undetectable viral load, they are significantly less likely to transmit HIV to others.
- If a person is on HIV treatment, a consistent increase in their viral load may be a sign that the virus is developing resistance to one of the ARV drugs. The client and their doctor will discuss what to do next.
Purpose:

This topic is focused on what disclosure is, barriers to disclosure, how to overcome the barriers to disclosure, importance and benefits of disclosure.
Chapter Eight: Disclosure

Notification Vs Disclosure: Notification means informing others about one’s situation while Disclosure is revealing one’s health status to a partner or significant others.

Purpose of disclosure: The purpose of disclosure is to promote personal responsibility in the prevention of HIV, care and support.

1. It is the responsibility of the person infected with HIV to protect his/her partners and prevent re-infections.
2. Disclosure as a risk reduction plan
3. Disclosure is taking personal responsibility to protect oneself from getting re-infected and avoiding infecting others
4. Disclosure is the first step during contact tracing to ensure that one’s sexual partners are notified/treated
5. Disclosure is a Positive Living strategy: It enables client to exploit ways of enjoying life despite being infected.
6. Disclosure leads to de-stigmatization: reducing the shame that is attached to HIV/AIDS.

Types of disclosure

1. Voluntary disclosure happens without coercion (Free will or own accord). It comes as an act of informed decision when one has seen the benefits of disclosing.

2. Involuntary disclosure happens without freewill due to the following reasons:
   - Mitigation purposes: When the court of law requires disclosure to be made
   - Mandatory: When the law requires persons to disclose against their will as part of contact tracing during an outbreak e.g. contact tracing, as prerequisite for insurance/work, marriage, sponsorship etc.
   - Accidental or when the results are revealed without intention

3. Self-disclosure mainly refers to one’s ability to share his/her own experiences
   - Direct self-disclosure happens when a person discloses a situation that affected him/her directly
   - Indirect self-disclosure happens when a person discloses a situation as though it happened to another person without mentioning that person’s name.

4. Family based disclosure is disclosure which takes place within a family context in the presence of a counsellor. During their visit, the counsellors should explain that the family plays an important role in the management of HIV infection.
   - The family protects one another against outside stigma and discrimination
   - The family unit is the backbone of the disclosure process
   - No matter what happens in the world, the family has a responsibility to remain focused
   - Clients have a right to collect their medicines using a trusted family member
   - When the family is with the client, every other person will him/her well
Benefits of disclosure

- Disclosure confers peace of mind because if everyone knows already, then fear does not become a factor any more
- Disclosure increases acceptance and adjustment
- With disclosure, one to becomes a role model to others (many more role models are needed)
- Disclosure promotes focus in terms of life priorities (future plans)
- Disclosure bridges access to medical care and social support
- Disclosure Enhances family bonds
- Disclosure helps children to cope better with HIV and adhere to treatment
- Disclosure increases self-esteem among children & adolescents
- Disclosure helps adolescents make informed choices regarding safe-sex with a partner
- Disclosure helps children & caregivers to adjust to living with HIV/AIDS
- Disclosure helps to reduce stigma, discrimination, & misconceptions/myths regarding HIV/AIDS

Limitations of disclosure

- Disclosure can be challenging. It requires courage to champion
- The prospect of experiencing shame, discrimination, abandonment or even rejection is real.
- There is the possibility of suffering a broken relationship
- Some people may blow one's disclosure out of context

SUMMARY

- Adolescents have a right to know their status;
- Parents and caregivers should be prepared for the disclosure process.
- Health workers should have the knowledge and skills to equip the parent/caregiver to disclose HIV status to the adolescent
The purpose of disclosure is to promote personal responsibility in the prevention of HIV, care and support.
Purpose:

This chapter comprehensively looks at emotional wellness. It explains what emotional wellness is, the causes of some of the emotional problems HIV positive adolescents may face, and the solutions to those problems are also discussed. By the end of this chapter, one should be able to understand their emotions clearly, the reasons for certain emotions and how to deal with them.
Chapter Eight: Disclosure

Figuring out the cause of emotional problems

Some people with HIV experience emotional problems such as anxiety, depression, sleep disorders and nightmares, or mental problems such as foggy thinking, memory difficulties and loss of the ability to concentrate or focus. If you are experiencing these symptoms or have friends, family or co-workers telling you they are observing such problems in you, it is important to work with your doctor and possibly other health professionals to obtain an accurate diagnosis and to establish a treatment plan.

There are several possible causes of emotional problems in people living with HIV. Sometimes, multiple causes can interact to create problems. The causes may or may not be associated with HIV disease and its treatments.

It is normal to have feelings of worry or anxiety about different issues in your life from time to time. However, if anxiety persists, symptoms can intensify beyond general worrying and include irritability, changes in appetite and weight, difficulty falling or staying asleep and sexual problems. Anxiety is a health problem that can and should be treated. Moreover, if anxiety does not resolve, it can, in some cases, turn into depression.

People may say they are depressed when they experience sadness or “the blues”. Such short-term feelings of sadness are part of everyday life for most people. However, true clinical depression is a serious condition that has emotional, physical and behavioural effects, including long-term feelings of sadness, the inability to feel pleasure, disinterest in previously pleasurable activities, low self-esteem, the loss of the ability to concentrate on tasks, fatigue, poor quality of sleep, feelings of hopelessness and, in the most extreme cases, thoughts of suicide.

Many people with HIV at some point experience depression, anxiety or other mental problems not caused by HIV disease but rather by their life experiences, lifestyle or biochemical imbalances in the brain. However, it is very important to remember that there are specific HIV-associated causes that should always be considered as you seek answers for depression and other emotional or mental problems. If any of the following HIV-associated issues are contributing to your emotional or mental symptoms, they will need to be addressed in order to restore your emotional health.

Antiretroviral drugs

Many antiretroviral medications can cause emotional or mental problems as side effects. These side effects may diminish or disappear after a period of days, weeks or months but can also remain long-term. In some cases, changing drugs may be the only option.

The drug most likely to be a cause of mental health problems is the non-nucleoside analogue efavirenz (Sustiva and in Atripla). This medication can cause fatigue, unfocused thinking, feelings of paranoia and disorientation, depression, anxiety, insomnia, vivid dreams and nightmares. Though many people do not experience any of these side effects on this medication, those who do these side effects typically disappear gradually after several weeks on the drug, so waiting out the problem for at least a month is advisable, if possible. For others, the problems continue and changing drugs may be the only solution. Consider beginning efavirenz on a weekend or taking a few days off from work since it can take a few days to get used to this drug. Also, it is best to avoid street drugs and alcohol when starting efavirenz because they can worsen some of the central nervous system side effects of this medication. Taking efavirenz on an empty stomach can also help, as food (especially fat) can increase levels of the drug in the blood and thus worsen side effects.

Although rare, serious psychiatric disorders have occurred in some people taking efavirenz, including severe depression, aggressive behaviour, delusions, paranoia, psychosis-like symptoms and suicide attempts. Patients with a prior history of psychiatric disorders appear to be at greater risk for these serious problems.
**Nutrient deficiencies**

Deficiencies of certain nutrients, especially vitamin D, vitamin B12 and other B vitamins, are common in people with HIV and can cause a variety of emotional and mental symptoms.

Vitamin D deficiency has been linked to depression. It is very important to get your vitamin D level tested regularly and use supplements when necessary to boost vitamin D to an optimal level. Studies have shown that vitamin D deficiency is a common problem in people with HIV, so this is a possibility in anyone who has developed depression, especially in the winter. With proper supplementation, depression and associated problems caused by vitamin D deficiency can usually be reversed.

Vitamin B12 has been shown in studies to be deficient in many people with HIV, and the deficiency can begin early in the disease. Vitamin B12 deficiency can result in a deterioration of mental function that can cause symptoms such as foggy thinking, memory loss, confusion, disorientation and psychiatric disorders, including depression and paranoia. If you have developed such emotional or mental symptoms, especially when combined with chronic fatigue, it is very possible that vitamin B12 deficiency could be contributing. Other symptoms that this deficiency can cause include weakness and difficulty with balance or walking.

Other B vitamins are also sometimes deficient in people with HIV. Deficiency of almost any individual B vitamin or of the whole B complex can cause anxiety, depression, lack of focus or difficulty concentrating. Most important in this regard is vitamin B6. Always accompany an individual B vitamin supplement with another supplement that contains the whole B vitamin complex in order to maintain the proper balance of these important vitamins.

**Reducing stress**

Stress may be causing your anxiety or depression. Many people face stressors in their relationships, finances and work. Living with a disease like HIV or other chronic illness can add to that stress. Stress reduction can come from a combination of behavioural strategies and counselling with a good mental health professional, along with meditation, other relaxation techniques or homeopathic remedies.

There are many simple self-help techniques that can help deal with anxiety, including:

- **Deep, slow breathing** – Concentrate on taking slow, steady breaths. Breathe into the count of four, pause and breathe out to the count of four. Repeat. Find some time every day to focus on your breath and slow it down.
- **Relaxing** – Tense up each muscle in your body, one at a time, and then release it to see how a relaxed muscle feels. A hot bath with aromatherapy oils or Epsom salts or getting a massage also helps to relax muscles.
- **Laughing** – Studies show that laughter reduces stress.
- **Living in the here and now** – Life with HIV can be all about living in the past with regrets or in the future with worry about what lies ahead. Find some time every day to try to let go of the past and future and live in the moment.
- **Appreciating the good things** – Every day, try to count five things in your life that you are grateful for. This reinforces a positive attitude.
- **Problem solving** – If the source of your stress is something you have control over, try to address it and eliminate the root cause.
- **Talking about your fears** – Keeping your fears bottled up makes them worse. Find a friend, a counsellor or an elder you can talk to about your biggest fears and worries.
- **Learning about stress reduction** – Many complementary therapies teach relaxation and stress reduction e.g. massage, yoga and meditation classes.
Eating, sleeping, exercising and socializing

A healthy lifestyle contributes to mental and emotional health. Eating a nutrient-rich healthy diet is important for mental and physical health in people with HIV. Many studies have shown that regular exercise can help to improve mood and counter anxiety, stress and depression. Getting a good night’s sleep is also very important for maintaining a good mood in general, as well as for ensuring you have sufficient energy to address your health and well-being.

Socializing with friends and family and finding social support can contribute significantly to emotional wellness, too. People with HIV who are isolated or have little social support are more likely to experience depression and anxiety. Making the effort to socialize or joining a peer support group can be very helpful for restoring and maintaining good emotional health.

Seeking professional help

In addition to finding support within your circle of family and friends, you may want to reach out to healthcare providers. A good place to start is with your family doctor or HIV specialist. They can work to uncover any medical causes, and they can refer you to mental health professionals such as counsellors, psychologists or psychiatrists for more help.

Talk therapy, either one-on-one or in a group, can be very effective in dealing with emotional problems. If you are feeling emotionally unwell, it is crucial you have someone to listen to you, understand your feelings, give you support and help you understand what is troubling you. Antidepressant medication may also be part of the solution.

How to support someone diagnosed with HIV

A lot is said on how to deal with HIV however very few talk about how to deal with HIV when a loved one gets it, you do not know what to say to the person or even how to react to the news. Here are some things you can do to help.

- Talk. Be available to have open, honest conversations about HIV. Follow the lead of the person who is diagnosed with HIV. They may not always want to talk about it or may not be ready. They may want to connect with you in the same ways they did before being diagnosed. Do things you did together before their diagnosis; talk about things you talked about before their diagnosis. Show them that you see them as the same person and that they are more than their diagnosis.

- Listen. Being diagnosed with HIV is life-changing news. Listen to your loved one and offer your support. Reassure them that HIV is a manageable health condition. There are medicines that can treat HIV and help them stay healthy.

- Learn. Educate yourself about HIV: what it is, how it is transmitted, how it is treated, and how people can stay healthy while living with HIV. Having a solid understanding of HIV is a big step forward in supporting your loved one. This website is a good place to begin to familiarize yourself with HIV. Have these resources available for your newly diagnosed friend if they want them. Knowledge is empowering, but keep in mind that your friend may not want the information right away.

- Encourage treatment. Some people who are recently diagnosed may find it hard to take that first
Step to HIV treatment. Your support and assistance may be helpful. By getting linked to HIV medical care early, starting treatment with HIV medication (called antiretroviral therapy or ART), adhering to medication, and staying in care, people with HIV can keep the virus under control, and prevent their HIV infection from progressing to AIDS. HIV treatment is recommended for all people with HIV and should be started as soon as possible after diagnosis. Encourage your friend or loved one to see a doctor and start HIV treatment as soon as possible. If they do not have an HIV care provider, you can help them find one.

- Support medication adherence. It is important for people living with HIV to take their HIV medication every day, exactly as prescribed. Ask your loved one what you can do to support them in establishing a medication routine and sticking to it. Also ask what other needs they might have and how you can help them stay healthy. Learn more about treatment adherence.

- Get support. Take care of yourself and get support if you need it. Turn to others for any questions, concerns, or anxieties you may have, so that the person who is diagnosed can focus on taking care of their own health.
Clinical depression is a serious condition that has emotional, physical and behavioural effects.
Chapter Ten: SELF-AWARENESS AND HUMAN DEVELOPMENT

Purpose:

This topic talks about what self-awareness is, our feelings, types of personalities as well as ego states to help us understand how our personalities are shaped. At the end of this topic, you should be able to understand what causes anxiety, and what influences your behaviour patterns, as well as know why self awareness is vital for everyone. Self-awareness is a very vital life awareness skill. It is intended to give individuals an opportunity to explore and discover more of who they are. The topic also helps one to explore his/her personality or character with a view to understanding one’s strengths and weaknesses.
What is self-awareness?

Self-awareness or self-concept is knowledge and understanding of oneself (strengths and weaknesses). It is sometimes also referred to as insight into one’s character and personality traits. Self-awareness also means introspection or self-examination of how one’s character affects others. If we are aware of pain, we want to do something about it, be it physical or emotional. Self-awareness helps us to be drivers of our lives, rather than passengers. If we are aware of how we feel, we can deal with these feelings, rather than suppress them and let them drive us to some actions which are not acceptable to us or others.

Feelings

Feelings are emotions that we experience nearly every moment of our lives. As humans, we always experience a variety of feelings such as hate, fear, shame, anger, joy and many others. Feelings have the following characteristics:

- Feelings are natural and neutral.
- There is nothing good or bad about them.
- Feelings can be pleasant or unpleasant.
- The outcome of certain feelings can be helpful or harmful, depending on how we deal with them.

It is therefore very important to know our feelings and decide what we want to do. We need to do the following:

- Identify the feeling
- Know the feeling
- Name it
- Claim it
- Tame it
- Aim it
- Do not ASSUME!

Feelings are supposed to be dealt with each time they come, in a positive way. When feelings are not attended to adequately or immediately, they become unfinished business.

The Unfinished Business

Every time we deny a feeling, that feeling does not go away. Instead, it becomes unfinished business waiting to manifest at a least expected moment of life. Sooner or later, such unfinished business will manifest in the form of either inappropriate behaviour or unexplained bodily ailments. Therefore, if we do not express feelings directly, they have a way of manifesting themselves. Unfinished business can also affect our health in so many ways. Unexpressed feelings can lodge in our muscles, tissues and nervous system and if not expressed can eventually make us sick. Fortunately, we have an indicator of unfinished business which is FEAR. We live in fear because we do not deal with feelings effectively.

Personality and behaviour

Personality is the sum of one’s character: temperament, attitude, likes and dislikes, habits including genetic traits. Behaviour on the other hand is any observable activity of an organism (humans included) such as walking, jumping, eating, smiling, crossing one’s legs e.t.c.
Types of personalities

- **Extrovert**: Outgoing and sociable, talker (talks quite a lot) and optimistic (positive about the future), doer (practical).
- **Introvert**: In-door person, thinker (analytic), pessimist (low esteem), watcher (observer).

**NB:** *Which one of these personalities do you associate with?*

### The self-concept

- **Self-image**: The type of person you perceive yourself to be e.g., mother, pupil, fighter, pastor, leader, worker, lover or politician.
- **Body image**: how one views his physical body e.g. slim, well built, beautiful, ugly or fat.
- **Self-esteem**: The inner confidence that drives one to assert him/herself. People with low self-esteem tend to withdraw or surrender easily
- **Ideal self**: What one wishes to become (fantasies, ambitions, dreams)

### Self-awareness window (JOHARI window)

<table>
<thead>
<tr>
<th>What I know and others know (public domain window): Aspects of one’s character that are easily shared with others.</th>
<th>What I do not know, others know: The things I do not know myself which others know.</th>
</tr>
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<tbody>
<tr>
<td>Only I know, others do not (Private window): What is only known to you, mainly secrets.</td>
<td>Hidden window: No one knows (blind spots, hidden abilities, dreams)</td>
</tr>
</tbody>
</table>
Chapter Ten: Self-Awareness and Human Development

Self-awareness helps us to be drivers of our lives, rather than passengers.
Chapter Eleven: ADOLESCENT MENTAL HEALTH

Purpose:

This topic will help you understand some mental health problems that arise during adolescence such as depression, stress anxiety, substance abuse and how to manage them. It will help you understand yourself and others better.
Chapter Eleven: Adolescent Mental Health

What is mental health?

Mental health refers to the psychological or emotional well-being of an individual. This can be further captured in four main aspects of mental functioning. These are:

- An appropriate awareness of self,
- An awareness of one's abilities,
- An ability to work productively (whether in school or in their own environments),
- The ability to contribute to their communities (social, family or otherwise).

Most mental health problems can emerge in late childhood and early adolescence. Mental health problems and in particular depression is the largest cause of the burden of disease among young people. Poor mental health is associated with several health and social outcomes such as:

- Higher alcohol, tobacco and illicit substances use
- Adolescent pregnancy
- School dropout
- Delinquent behaviour

Healthy development during childhood and adolescence contributes to good mental health and can prevent mental health problems. Enhancing social skills, problem-solving skills and self-confidence can help prevent mental health problems such as conduct/behaviour disorders, anxiety, depression and eating disorders as well as other risk behaviours including those that relate to sexual behaviour, substance abuse, and violent behaviours.

In addition to the typical emotional changes that occur during adolescence, adolescents living with HIV must deal with a number of other stressors such as emotional disorders, adjustment disorders, the potential loss of loved ones, stigma and isolation, gender-based violence, challenges of sexual orientation, and the responsibility of taking care of oneself and/or others in the presence of a chronic illness. Adolescents who suffer from depression are more likely to be non-adherent to their HIV medication and have other self-care issues and thus require extra attention in both assessment and planning of their care.

What is mental illness?

Mental illness is any disease or condition affecting the brain that significantly influences or disrupts a person's thinking, feeling, mood, ability to relate to others and daily functioning. Many people have mental health concerns from time to time. But a mental health concern becomes a mental illness when ongoing signs and symptoms cause frequent stress and affect your ability to function. A mental illness can make you miserable and can cause problems in your daily life, such as at school or work or in relationships. In most cases, symptoms can be managed with a combination of medications and talk therapy (psychotherapy).

Depression

Depression is a feeling of intense sadness, including feeling helpless, hopeless, and worthless that lasts for days to weeks; loss of interest in activities that usually give pleasure. It is one of the more common illnesses in outpatient clinics, but it is often overlooked. Very few adolescents will present with a straightforward complaint of depression. Majority of the adolescents will present with other complaints and may never mention depressed mood unless questioned specifically for the symptoms. If the adolescent presents with vague somatic (bodily) complaints or numerous complaints that do not fit
any clear clinical pattern, consider depression as a diagnosis. It is also important to know that depression can come in different forms, that can either be mild, moderate or severe. It is important to seek clarity from the individual, asking them what they are usually doing or thinking before they start feeling this way.

Common Symptoms of Depression:

- Sleep disturbance
- Interest/pleasure reduction
- Guilt feelings or thoughts of worthlessness
- Energy changes/fatigue
- Concentration/attention deficiency
- Appetite/weight changes
- Suicidal thoughts

Treatment of Depression

1. Psychotherapy and Counselling: Psychotherapy is the first line therapy for depression in adolescents and children.

2.ii. Medications: For adolescents who may not respond to psychotherapy/Counselling refer to a psychiatrist for further assessment and antidepressants.

Other common mental health disorders include:

1. Behavioural disorders: violent behaviour, aggression, regression, withdrawal and impulsivity (the tendency to do things without adequate forethought).

2. Anxiety: feelings of nervousness, fear, or worry that interfere with the ability to sleep or otherwise function; a lack of appetite; tremulousness, and sweating. In addition, the adolescents may complain of a racing heart, difficulty breathing, headaches, difficulty falling asleep, and difficulty concentrating.

3. Stress: Stress describes a person’s physical or emotional response to the demands or pressures of daily life. Common causes of stress include work, money, relationships, school and illness. Stress usually manifests physically such as headaches, stomach problems, blood pressure becoming high, chest pains or even dizziness. We can manage stress by either changing the situation or changing the thoughts if we cannot change the situation.

4. Eating disorders: overeating, not eating enough, dieting to the point of starvation (anorexia nervosa), Bulimia nervosa-binge eating and then purging (vomiting).

5. Somatic complaints: complaints relating to the body, not the mind or spirit: Anxiety and depression affect the mind and the body and, when severe, may be accompanied by physical (or somatic) complaints. These may include fatigue, headaches/migraines, abdominal pain/gastrointestinal problems, back aches, difficulty in breathing/chest pain. Somatic symptoms can also occur as indicators of distress in the absence of obvious depression and anxiety. Among adolescents living with HIV it is always important to rule out medical causes.

6. Neurocognitive impairments: HIV positive adolescents are at increased risk of loss of memory which includes attention deficit, verbal memory, visual memory, reaction time and complex auditory information processing.

7. Suicidal ideation: thinking about suicide (desire to end own life)

8. Drug, alcohol and substance abuse: Uncontrollable intake of alcohol and other drug substances that alter one’s normal temperament.

9. Problems resulting from side effects of ARVs or negative experiences with medications: some ARVS, like Efavirenz, are known for their effect on the central nervous system, resulting in sleep disturbance, mood changes and perceptual abnormalities including hallucinations. Symptoms usually resolve but clients still need encouragement and support.

10. General problems coping with HIV diagnosis which include social withdrawal, loneliness, anger, confusion, fear and guilt.
How to prevent mental illness

Mental illness is common. About 1 in 5 adults has a mental illness in any given year. Mental illness can begin at any age, from childhood through later adult years, but most cases begin earlier in life especially during adolescent years. The effects of mental illness can be temporary or long lasting. You also can have more than one mental health disorder at the same time. For example, you may have depression and a substance use disorder.

There's no sure way to prevent mental illness. However, if you have a mental illness, taking steps to control stress, to increase your resilience and to boost low self-esteem may help keep your symptoms under control. Follow these steps:

1. Pay attention to warning signs. Work with your doctor or therapist to learn what might trigger your symptoms. Make a plan so that you know what to do if symptoms return. Contact your doctor or therapist if you notice any changes in symptoms or how you feel. Consider involving family members or friends to watch for warning signs.
2. Get routine medical care. Don't neglect checkups or skip visits to your doctor or clinician, especially if you aren't feeling well. You may have a new health problem that needs to be treated, or you may be experiencing side effects of medication.
3. Get help when you need it. Mental health conditions can be harder to treat if you wait until symptoms get bad. Long-term maintenance treatment also may help prevent a relapse of symptoms.
4. Take good care of yourself. Sufficient sleep, healthy eating and regular physical activity are important. Try to maintain a regular schedule. Talk to your doctor or clinician if you have trouble sleeping or if you have questions about diet and physical activity.

When to see a doctor

If you have any signs or symptoms of a mental illness, see your doctor or clinician or a mental health professional. Most mental illnesses don't improve on their own, and if untreated, a mental illness may get worse over time and cause serious problems.

If you have suicidal thoughts and suicidal behaviour get help right away. Call 911 or your local emergency number immediately. Call your mental health specialist. Seek help from the health facility or clinic near you. Reach out to a close friend or loved one. Contact a minister, pastor, spiritual leader or someone else in your faith community. Suicidal thinking doesn't get better on its own — so get help.

Helping a loved one

If your loved one shows signs of mental illness, have an open and honest discussion with him or her about your concerns. You may not be able to force someone to get professional care, but you can offer encouragement and support. You can also help your loved one find a qualified mental health professional and make an appointment. You may even be able to go along to the appointment. If your loved one has done self-harm or is considering doing so, take the person to the hospital or call for emergency help.
Purpose:

This chapter provides a discussion on gender-based violence (GBV). It defines GBV and explains some of the types of GBV that people experience, who it affects, some of the causes of GBV and how to prevent it. By the end of the chapter, one should be able to identify the various forms of GBV and its examples, how to avoid it and where to get help or report it.
What is GBV?

This is violence directed against a person because of that person’s gender or violence that affects persons of a particular gender disproportionately. The term gender-based violence reflects the idea that violence often serves to maintain structural gender inequalities, and includes the victimization of women, girls, men, boys, or adolescents. Gender-based violence is largely influenced by gender relations between males and females. It includes physical, sexual, verbal, emotional, and psychological abuse, threats, coercion, and economic or educational deprivation, whether occurring in public or private life.

Types of GBV

- Physical violence includes beating, burning, kicking, punching, biting, maiming or killing, or the use of objects or weapons.

- Verbal violence can include issues that are specific to a person, such as put downs (in private or in front of others), ridiculing, the use of swear-words that are especially uncomfortable for the other, saying bad things about the other’s loved ones, threatening with other forms of violence, either against the victim or against somebody dear to them. At other times, the verbal abuse may be relevant to the background of the victim, such as their religion, culture, language, (perceived) sexual orientation or traditions.

- Sexual violence includes engaging in non-consensual vaginal, anal or oral penetration by another person, by the use of any body part or object; engaging in other non-consensual acts of a sexual
nature with a person; or causing someone else to engage in non-consensual acts of a sexual nature with a third person. Marital rape and attempted rape constitute sexual violence. Examples of forced sexual activities include being forced to watch somebody masturbate, forcing somebody to masturbate in front of others, forced unsafe sex, sexual harassment, and abuse related to reproduction (e.g. forced pregnancy, forced abortion, forced sterilisation, female genital mutilation). Certain forms of sexual violence are related to a victim's personal limits, and are more typical of the private sphere. The perpetrator deliberately violates these limits: examples include date rape, forcing certain types of sexual activities, withdrawal of sexual attention as a form of punishment, or forcing other(s) to watch (and sometimes to imitate) pornography.

- Typical forms of socio-economic violence include taking away the earnings of the victim, not allowing them to have a separate income (giving them housewife status or making them work in a family business without a salary), or making the victim unfit for work through targeted physical abuse.

- Intimate partner violence (IPV) is domestic violence by a current or former spouse or partner in an intimate relationship against the other spouse or partner. IPV can take a number of forms, including physical, verbal, emotional, economic and sexual abuse.

- Emotional abuse is any kind of abuse that is emotional rather than physical in nature. It can include anything from verbal abuse and constant criticism to more subtle tactics such as intimidation, manipulation, and refusal to ever be pleased.

Examples of GBV
- Rape
- Female genital mutilation
- Child Marriage
- Trafficking for sex or slavery
- Physical punishment

Who is affected by GBV?

GBV can impact anyone regardless of their age, geographical location, socio-economic background, race, religion, sexuality, or gender identity. While women and girls are the most at risk and the most affected by gender-based violence, boys, men, and sexual and gender minorities also experience gender-based violence. GBV can have serious physical, mental, economic, and social repercussions. For example, sexualized violence can lead to unwanted pregnancies, unsafe abortions, and STI transmission, as well as isolation and depression. It can also prevent survivors from achieving economic prosperity because of stigma or physical and psychological trauma caused by the violence.

Gender-based violence against children refers to the violence inflicted on a child due to stereotypes and roles attributed to or expected of them according to their sex or gender identity. Children's vulnerabilities to violence come from the fact that they depend on their parents or caregivers for their development, health and wellbeing. Sometimes children are viewed as the property of their parents or caregivers, rather than rights-holders, making them vulnerable to abuse, neglect, exploitation and violence. As mentioned above, GBV disproportionately affects girls and women, particularly through certain forms of violence such as child marriage, intimate partner violence, female genital mutilation, 'honour' killings or trafficking.
Where does it happen?

Girls and young women often experience violence at home, from physical punishment to sexual, emotional or psychological violence. Acceptance of violence as a ‘private affair’ often prevents others from intervening and prohibits girls and young women from reporting.

School and the journey to it can also be a place where girls experience violence, from sexual harassment, bullying and intimidation. This violation of girls’ rights, especially when committed by those in positions of care or authority, can impact on girls’ ability to continue and complete their education.

In both cities and rural areas, violence against women and girls in public spaces and on public transport is sadly not uncommon. Fear and threats of violence and harassment limit girls’ capacity to lead a free and full life.

During emergency situations, girls are also at higher risk of violence, abuse, exploitation and abuse.

GBV is also a rising issue in online spaces, with girls and young women reporting harassment and abuse. For many girls, there is pressure to leave online platforms, or self-censor to avoid abuse. But this puts the responsibility on girls to change their behaviour, rather than the perpetrators who must be stopped.

Causes of GBV

Gender experts say the root causes of GBV can largely be narrowed down to inequality for women and the associated violence and harmful and controlling aspects of masculinity that result from patriarchal power imbalances embedded in much of Africa’s traditional and cultural beliefs.

This imbalance often leads to pervasive cultural stereotypes and attitudes that perpetuate the cycle of GBV. Communities, especially in the rural areas, have continued to embrace negative cultural beliefs whereby GBV is the norm. If a man does not beat his wife, it is taken to mean he doesn’t love her. Some beliefs condone men’s infidelity but never women’s infidelity.

The dependency syndrome, whereby women depend on the perpetrators of violence for survival, puts survivors in vulnerable situations.

A 2010 report by the UN’s special rapporteur on violence against women showed that the causes and consequences of GBV were disheartening to Zambian women.
Deeply embedded patriarchal values have led to women remaining discriminated against and disadvantaged in many sectors and to their being at a higher risk of violence. Gender discrimination has limited women’s access to land, education, credit and other productive assets and has created a power imbalance preventing women and girls from having full control over their lives. This has led to women being overrepresented among the extremely poor, the unemployed, the illiterate and those living with HIV and AIDS—while at the same time being underrepresented in political and decision-making bodies.

Lack of information also causes GBV. Many women do not realize that constantly nagging, comparing and putting down a man is also a form of GBV and also leads to physical GBV as caused directly by emotional GBV.

**How to prevent GBV**

Preventing GBV, to stop it from happening in the first place, is a key priority. Given that GBV is based on gender norms and gender-based power inequalities, GBV prevention strategies are intrinsically linked to efforts to increase gender equality more generally. Hence, rather than disconnecting and treating GBV as a separate and isolated problem, it has to be situated in the context of gender inequalities. The following measures can help prevent and stop GBV:

- A shift in focus from seeing women (and other groups exposed to gender-based violence) as victims to seeing them as survivors, actors and agents of change with a strong focus on women and girl’s empowerment and agency.

- Efforts to increase women’s political participation and influence in contexts of peace, conflicts and other humanitarian crises. Women have rights to participate on equal terms with men in political bodies at all levels of the society, including in peace processes. In many countries women’s political representation is very low, and women are often excluded from formal peace negotiations. This has devastating consequences for the possibility to reach a sustainable development, peace and human security.

- Efforts to increase women’s economic empowerment that enhance women’s bargaining power and ability to leave abusive relationships. This includes strengthening adolescents and women’s entrepreneurship and employment opportunities, improving women’s access to land and property rights, promoting equal sharing of unpaid care work between women and men and encouraging universal access to quality education. While such efforts can contribute to increased violence against women in the short term due to gender ideals linking masculinity to the provider role, increasing women’s economic empowerment is still crucial for longer term prevention of GBV. Women’s economic empowerment interventions which also address gender norms and reach couples and communities can reduce such risks.

- Efforts to increase sexual and reproductive health and rights are crucial for preventing GBV given the close relationship between the two. Such efforts include promotion and protection of adolescents and women’s right to have control and decide freely over matters related to their sexuality, including sexual and reproductive health, family-planning possibilities and HIV/AIDS prevention.

- Incorporate men and boys as perpetrators, as victims/survivors and as agents of change. Men and boys are often neglected as survivors of GBV. Hence, there is a need to recognise and address men’s and boys’ particular vulnerabilities and needs in relation to GBV, especially in the context of
armed conflict. Rather than simply ‘bringing men in’ to work against violence against women, there is a need to work towards transformed norms around gender relations and masculinity. Such an approach acknowledges that men and boys are also restricted by expectations linked to masculinity and can also be victims of violence. A failure to recognise and address this can contribute to the perpetuation of cycles of GBV. When successful, though, such an approach enables men and boys to become agents of change.

• Transformation of norms and behavior that underpin GBV. The logic of GBV is based on gender stereotypes, such as ideals linking masculinity to the provider role, macho behaviour and violence as well as ideals linking femininity to chastity, submission and victimhood. Prevention efforts should start early in life and be directed at girls and boys. Both non-formal education and formal education are important areas for normative change and have the potential to address gender inequalities and prevent GBV.

In general, violence is not a private matter – it must be uncovered for it to be challenged. Ending gender-based violence will involve action at all levels: challenging social norms that condone violence or impose gender roles; strengthening legislation to criminalise violence and prosecuting the perpetrators.

It is vital for adolescents to learn about gender-equality at school. Community dialogue can help challenge the attitudes towards punishment and dominance that perpetuate GBV. It is important to promote and strengthen values that support non-violent, respectful, nurturing, positive, gender-equitable relationships for all children and adolescents, including the most vulnerable and excluded.
Purpose:

This chapter provides information on sexual health, the basics on sexual health and the role that HIV plays in sexual health issues. At the end of this chapter, adolescents must be able to understand what sexual health is, the importance of maintaining a healthy sex lifestyle, and how a personal living which HIV can still have a healthy sex lifestyle because of Pre-Exposure Prophylaxis (PREP) and Post Exposure Prophylaxis (PEP), and condom use. Most of the information here will apply to you if you are a sexually active person, regardless of your gender or sexual orientation.
What is Sexual Health?

A state of physical, emotional, mental and social well-being in relation to sexuality. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence (WHO, 2006). The ability of men and women to achieve sexual health and well-being depends on their:

- access to comprehensive, good-quality information about sex and sexuality
- knowledge about the risks they may face and their vulnerability to adverse consequences of unprotected or unsafe sexual activity
- ability to access sexual health care
- living in an environment that affirms and promotes sexual health

Sexual health is as valuable as any other type of health. Sometimes depending on where you are in the world and your upbringing, sexual health may not be as recognized as other types of health and there may even be shame, embarrassment, fear, and confusion with sexual health. This is very common as there can be a lot of shame attached to things associated with “sex”. On the other hand, you may be very comfortable talking and learning about sexual health. Take a moment to think about how the topic of sexual health makes you feel?

Sexual health-related issues are wide-ranging, and encompass sexual orientation and gender identity, sexual expression, relationships, and pleasure. They also include negative consequences or conditions such as:

- infections with human immunodeficiency virus (HIV), sexually transmitted infections (STIs) and reproductive tract infections (RTIs) and their adverse outcomes (such as cancer and infertility)
- unintended pregnancy and abortion
- sexual dysfunction
- sexual violence; and
- harmful practices (such as female genital mutilation, FGM).

The decision to engage in sexual activity with others is very personal and is usually influenced by many social factors such as personal values, cultural beliefs, and self-esteem.

Factors to consider before engaging in sexual activity

There are many reasons why people have sex. Sometimes it’s a conscious choice and sometimes things happen in the moment. If you are consciously thinking about whether or not you would like to engage in sexual activity with others, some things you may want to consider could be:

- What are my reasons for wanting to explore sexual activity?
- Am I okay with these reasons? There are no right or wrong reasons. It is about your own personal values, beliefs, and comfort level.
- Do I feel safe with this person/people to explore sexual activity?
- Is there anything I need to know before engaging in sexual activity with others?
- Are there specific questions I have or information I need? (Clinician or peer educator can help!)
- Am I trying to prevent pregnancy? If so, what information might I need to help me do this? Do I need information on my chances of pregnancy?
Chapter Thirteen: HIV and Sexual Health

- Do I need access to birth control options?
- Will my sexual partner/partners respect my need to prevent pregnancy?
- Or maybe I am not sure if the sexual activity I want to engage in will create a chance of pregnancy?
- Am I trying to prevent sexually transmitted infections (STIs)? If so, what information do I need to play safe and where can I get the safer sex supplies I might need?
- How can I communicate my desire to use safer sex supplies with my sexual partners? Are they on the same page in terms of wanting to prevent STIs?
- Can I talk to this person/people about the decision to be sexual?
- Are there specific things I want to talk to this person/people about such as what our expectations might be, what sexual activities we want to explore, our sexual histories, safe words, how to gather consent, etc..
- Is the sexual activity legal in terms of age of consent (in Zambia, the age of consent is 16, but there are additional details like sexual exploitation caveats to this that are important to understand)
- What can I do to ensure that sexual exploration is consensual? (What is consent? See below!)

Sometimes, people go through these questions and realize they are not ready. That is absolutely okay. Only you can determine when you are ready to have sex, no one else. It is also really important to consider if you are the partner of someone who is not ready to have sex that it is okay for them to say no. Your role as a supportive partner is to accept that no, without shaming or guilt your partner. It is just as important to learn how to take a no as it is to be the one saying no.

**Peer pressure and sexual health**

Peer pressure is always tough to deal with, especially when it comes to sex. Some adolescents decide to have sexual relationships because their friends think sex is cool. Others feel pressured by the person they are dating. Still, others find it easier to give in and have sex than to try to explain why not.

Usually, peers also act as a source of information where contraceptives, sexual acts, as well as norms of sex are concerned. Most of the time this information is inaccurate or completely wrong. However, the need to fit in leads most adolescents into doing things they are not comfortable with. Adolescents should never allow themselves to be pressured into sex as alluded to above but should take time to think about it more seriously before engaging it. This is to avoid the consequences that may come with unsafe sex, both emotional (guilt, stress, anxiety) and physical (HIV, unwanted pregnancy, STIs, etc.). It is very important to only obtain information about sexual health from legitimate sources such as Ministry of Health, the hospital, clinic or youth friendly spaces at the health facility near your community.

**Sexual health for people living with HIV**

HIV drugs, and their use in both the treatment and prevention of HIV, have changed the way we think about the virus. These days, sexual health needs to be considered in a comprehensive way that includes both HIV and STIs.

If you have HIV but are not on treatment, talk to your doctor about starting treatment. HIV drugs protect your health and prevent HIV transmission to others. When you are on HIV treatment and your viral load is fully suppressed or undetectable, you cannot pass HIV to your sexual partners. For people living with HIV, sex has traditionally mixed pleasure with risk in a bit of a balancing act. But U=U has changed things. When talking about sexual health in this context, we are looking at ways that you can get what you want from sex while reducing the possible risks or harms to your physical and mental/emotional health.
What role does HIV treatment play in my sexual health?

HIV treatment plays an important role in your sexual health, especially when it comes to your viral load. Viral load refers to the amount of HIV in the blood of a person living with the virus. Successful treatment can reduce the amount of HIV in the blood to a level too low to be measured by a viral load test. When this occurs, a person’s viral load is said to be undetectable. For most people, this occurs after they have taken HIV treatment for three to six months.

Having an undetectable viral load does not mean that you are cured of HIV. You need to keep taking your medications to stay healthy and keep your viral load undetectable. What it does mean however, is that there is not enough HIV in your bodily fluids (blood, semen, pre-cum, vaginal fluid and rectal fluid) to pass on the virus during sex. If you take your HIV medications and achieve and maintain an undetectable viral load, you are not infectious to your sexual partner(s).

PrEP (Pre-Exposure Prophylaxis)

If you do not have an undetectable viral load, PrEP is an option for your HIV-negative sexual partner(s). PrEP involves an HIV-negative person taking certain HIV drugs to reduce the risk of getting HIV. A doctor or clinician can provide further information about PrEP. You no longer need a condom to prevent passing on HIV if you have an undetectable viral load and/or your partner is on PrEP. However, condoms are still a highly effective way to prevent many STIs and pregnancy.

For many people living with HIV, this information provides huge relief from fear and anxiety. It helps to improve sexual self-esteem and can make talking about HIV with others easier by reducing stigma. As a result, people with HIV may find themselves having more sex, different sex and better sex.

PEP (Post-Exposure Prophylaxis)

If an HIV-negative person is exposed to HIV, they can take HIV drugs (PEP) for 28 days to reduce the risk of transmission. However, they must start taking these drugs as soon as possible, and within 72 hours of their HIV exposure.

What to do if sexually active and HIV positive

1. Get tested regularly for other STIs if you are sexually active. Looking after your sexual health is important when you have HIV. Having the virus can make STIs and other sexual health problems more complicated to diagnose and treat. U=U means that you have more flexibility about when to use condoms, but you will need to think about your STI risk and other related conditions. If you are living with HIV and are sexually active, it is important to do what you can to maintain your sexual health. This means having regular sexual health checkups with a knowledgeable doctor or service provider who knows your HIV status and your sexual history.

2. Try to keep your viral load undetectable and have it tested regularly, every three to six months. An undetectable viral load lets you decide when you use condoms and when you do not.

3. Be honest about the sex that you are having:
   - Does it make you feel good about yourself or are you doing it because you are under some form of pressure? (Think through some strategies of avoiding sex before you hook up).
   - Does it look and feel like the sex you want to be having or can you wait until you are more mature and ready?
   - If you are sexually active, how can you pay attention to your sexual health while having sex?
4. Try to communicate honestly with all your partners about HIV and STIs. Let them know a bit about you, what you are comfortable with (or not) and your boundaries. Don’t be afraid to say “slow down” or “stop” if things are not going as you expected. Make sure you are vaccinated for HPV and hepatitis A and B, as appropriate.

5. Think about your use of drugs and alcohol with sex. Drugs and alcohol can lower your inhibitions and lead to risky behaviours, like having sex without a condom in a situation where you do not know a lot about the health of your partner(s). Consider using condoms.

**Consent**

Consent is an agreement between participants to engage in sexual activity. Consent is an important and necessary part of sex, regardless of viral status. It means feeling safe and comfortable with what is going on. Consent is not a one-time thing – it is an ongoing process. It also means you have the right to change your mind or stop any activity that does not feel safe at any point. Drugs or alcohol can affect people’s ability to consent: make sure to regularly check in with your partner to make sure that they are fully consenting to what you are doing together, and talk about what sex means with them. If in doubt, ask! Do not be worried about killing the mood.

See YouTube link on consent video below:

https://www.youtube.com/watch?v=oQbei5jGiT8

**Communication and Disclosure**

People living with HIV can face criminal charges for not telling their sexual partner(s) about their status before having sex. This is usually called the “criminalization of HIV non-disclosure.” Therefore, it is very important for one to disclose their HIV status to their sexual partner(s).
The decision to engage in sexual activity with others is very personal and is usually influenced by many social factors such as personal values, cultural beliefs, and self-esteem.
Chapter Fourteen: FAMILY PLANNING

Purpose:

This chapter looks at family planning and the different methods available. It looks at the advantages and disadvantages of specific family planning methods, how to wear female and male condoms as well as menstrual health.
What is family planning?

Family planning is the act of planning when to have children, how much space should be in-between as well as how many children to have. Family planning can also be used by couples who do not wish to have any children. Family planning is important because it gives you the ability to choose the right time and circumstances to have a child so that you can provide for them financially and emotionally.

Types of family planning methods

1. **Natural Family planning:** This is one of the oldest methods of family planning is natural family planning. Natural family planning (NFP) is a term which includes all methods of fertility control that center on a couple’s awareness of the woman’s fertile period. This means that the woman should be able to tell according to which stage she is on her menstrual cycle when she is able to conceive and when she cannot. Body temperature, thickness of discharge are usually indicators of which days are safe. During this period of high fertility, the couple would either abstain from sex or use the withdrawal method. Withdrawal method is where a man pulls out of the woman’s vaginal before ejaculating. Breastfeeding has also been used as a natural way of preventing pregnancies commonly referred to as lactational amenorrhoea method (LAM). This method is not always reliable as factors like stress, change in geographical location as well as medications may affect the menstrual cycle. It also does not protect you from STIs

2. **Injectables:** This method involves injecting a hormone into the body through either the shoulder or buttocks. Two common types exist : Medroxyprogesterone acetate (MPA), also known as depot medroxyprogesterone acetate (DMPA) in injectable form and sold under the brand name Depo-Provera among others, is a hormonal medication of the progestin type. It is used as a method of birth control and as a part of menopausal hormone therapy. It lasts for three months. Common side effects include menstrual disturbances such as absence of periods, abdominal pain, and headaches. Sayana Press also works in the same way as Depo Provera. Norethisterone enanthate (NETE), also known as norethindrone enanthate, is a form of progestogen-only injectable birth control which is used to prevent pregnancy in women. It may be used following childbirth, miscarriage, or abortion It lasts for two months. Side effects include breast pain, headaches, depression, irregular menstrual periods, and pain at the site of injection( this injection is thick like oil). This method will prevent pregnancy but will not protect you from STIs.

3. **Pills:** Combined oral contraceptive pills are a type of oral medication that is designed to be taken every day, at the same time of day, in order to prevent pregnancy. There are many different formulations or brands, but the average pack is designed to be taken over a 28-day period, or cycle. For the first 21 days of the cycle, users take a daily pill that contains hormones (estrogen and progestogen). The last 7 days of the cycle are hormone free days. Missing a single dose of the cycle could result in pregnancy. Common pills in Zambia include Mycrogynon and Safe plan.
4. **Implants**: The contraceptive implant is a small, flexible rod about the size of a matchstick. The implant is put under the skin of the upper arm. It can stay there for up to 3 years. The implant slowly releases a progestogen hormone called etonogestrel into the bloodstream. This can prevent pregnancy for up to 5 years. It prevents a woman’s eggs from being released from her ovaries (ovulation) as well as thickens the mucus in the cervix (the neck of the uterus) so that the sperm cannot enter the uterus. It doesn't protect against sexually transmissible infections (STIs). It will change your normal monthly period as well as hormonal side-effects including headache, nausea, breast tenderness, acne, mood changes as well as a change in your menstrual cycle.

5. **IUD**: IUD stands for Intrauterine Device (basically: a device inside your uterus). It’s a small piece of flexible plastic shaped like a T. Sometimes it’s called an IUC — intrauterine contraception. An IUD is a tiny device that’s put into your uterus to prevent pregnancy. It’s long-term, reversible, and one of the most effective birth control methods out there. The IUD commonly referred to as the copper T doesn’t have hormones. It’s wrapped in a tiny bit of copper, and it protects you from pregnancy for up to 12 years. IUD works super well as emergency contraception. If you get it put in within 120 hours (5 days) after unprotected sex, it’s more than 99.9% effective. The IUD will not protect you from STIs.

6. **Condoms**: A condom is a sheath-shaped barrier device used during sexual intercourse to reduce the probability of pregnancy or a sexually transmitted infection. There are both male and female condoms. The male condoms should be worn right before having sex while the female condom should be worn from 15min to 6 hours before sex depending on the brand.
How to use the female condom

Carefully open and remove female condom from package to prevent tearing

The thick, inner ring with closed end is used for placing in the vagina and holds condom in place. The thin, outer ring remains outside of the body, covering the vaginal opening.

Find a comfortable position. While holding the outside of the condom at the closed end, squeeze the sides of the inner ring together with your thumb and forefinger and insert into vagina. It is similar to inserting a tampon.

Using your finger, push the inner ring as far up as it will go until it rests against the cervix. The condom will expand naturally and you may not feel it. Be sure the condom is not twisted. The thin, outer ring should remain outside vagina.

Guide partner’s penis into opening of female condom. Stop intercourse if you feel penis slipping between the condom and the walls of vagina or if the outer ring is pushed into vagina.

To remove, gently twist the outer ring and pull the female condom out of vagina.

Wrap in a piece of tissue and dispose in the bin, DO NOT FLUSH.
How to use the male condom

Carefully open and remove condom from wrapper.

Place the condom on the head of the erect, hard penis. If uncircumcised, pull back the foreskin first.

Pinch air out of the tip of the condom.

Unroll the condom all the way down the penis.

After sex but before pulling out, hold the condom at the base. Then pull out, while holding the condom in place.

Carefully remove the condom and throw it in the trash.
7. **Emergency pill:** The emergency pill commonly referred to as morning-after pill is a type of emergency birth control (contraception). Emergency contraception is used to prevent pregnancy for women who have had unprotected sex or whose birth control method has failed. The morning-after pill is intended for backup contraception only, not as a primary method of birth control.

8. **Permanent method:** There is also a permanent birth control method which cannot be undone. This one is best done when you decide you no longer want to have any children. It is called tubal ligation in women and vasectomy in men. Tubal ligation is a surgical procedure for female sterilization in which the fallopian tubes are permanently blocked or removed. This prevents the fertilization of eggs by sperm and thus the implantation of a fertilized egg. Tubal ligation is considered a permanent method of sterilization and birth control. Vasectomy is minor surgery to block sperm from reaching the semen that is ejaculated from the penis. Semen still exists, but it has no sperm in it. After a vasectomy the testes still make sperm, but they are soaked up by the body.

**Menstruation**

Menstruation is a woman's monthly bleeding, often called the “period.” When a woman menstruates, the body discards the monthly buildup of the lining of the uterus (womb). Menstrual blood and tissue flow from the uterus through the small opening in the cervix and pass out of the body through the vagina. If one does not get pregnant, estrogen and progesterone hormone levels begin falling. Very low levels of estrogen and progesterone tell the body to begin menstruation.
The Menstrual Cycle

The menstrual cycle is the monthly hormonal cycle a female's body goes through to prepare for pregnancy. The menstrual cycle is counted from the first day of the period up to the first day of the next period. The hormone levels (estrogen and progesterone) in one’s body usually change throughout the menstrual cycle and can cause menstrual symptoms. Some of the most common symptoms are bloating, (when the belly feels puffy), breakouts, sore breasts, feeling tired, and mood swings. The typical menstrual cycle is 28 days long but each woman is different.

On average, women get a period for about 40 years of their life. Most women have regular periods until perimenopause, the time when your body begins the change to menopause. Perimenopause, or transition to menopause, may take a few years. During this time, your period may not come regularly. Menopause happens when you have not had a period for 12 months in a row. For most women, this happens between the ages of 45 and 55.

Periods also stop during pregnancy and may not come back right away if you breastfeed. But if you don't have a period for 90 days (three months), and you are not pregnant or breastfeeding, talk to your doctor or nurse. Your doctor will check for pregnancy or a health problem that can cause periods to stop or become irregular.

Keeping yourself clean and comfortable during menstruation

Here are some easy hygiene tips every woman must follow:

1. Do not use pads or tampons for long (not longer than 4 hours)
2. Keep the pubic area clean (wash thoroughly with soap)
3. Dispose used pads safely (use sanitary bins or pits, do not flush in toilets)
4. Stay away from vaginal cleansers and douches
5. Rest and catch up on sleep
Family planning is important because it gives you the ability to choose the right time and circumstances to have a child.
Chapter Fifteen: HEALTHY LIVING AND NUTRITION

Purpose:

This chapter talks about healthy living and nutrition. It explains the correlation between HIV and nutrition. By the end of this chapter, one must understand how HIV affects nutrition, how nutrition is incorporated in the HIV care plan, understanding food and creating the proper diet and water safety.
Why this guide is important for you?

The saying goes: You are what you eat. The good news is that nutrition is in your hands—and in your mouth. Good nutrition can keep you healthy and decrease your chances of getting other chronic diseases. People living with HIV who get the nutrients they need get sick less often, are stronger and have improved quality of life. With good nutrition and medical care, you can not only live longer with HIV.... you can live better.

Nutrition and your immune system

Your immune system needs good nutrition to function well. We have known for decades that nutrition plays a major role in immunity and the ability of the immune system to respond to infection. The nutrients our bodies derive from food keep the immune system strong in countless ways. For example, the skin and linings of the lungs and gut provide the first line of defense by acting as physical barriers to invaders such as viruses and bacteria. These barriers are very sensitive to nutrition, especially vitamin A, and deteriorate when people do not get proper nutrition. When this happens, viruses and bacteria have easier access into the body.

How HIV affects nutrition

Nutritional issues are common in HIV disease. At some point, almost everyone living with HIV will face challenges in maintaining good nutrition. Problems can be related to HIV infection itself and to the effects of anti-HIV drugs or therapy. For example, the virus can infect some of the immune cells in the intestines, causing local inflammation and making it more difficult to absorb nutrients and medicines. This can result in weight loss or vitamin and mineral deficiencies.

Also, the nutritional needs of people with HIV are greater because the body has to work overtime to deal with a chronic viral infection and to fight off opportunistic infections. People co-infected with hepatitis C, which attacks the liver, are even more at risk of nutritional problems because the liver has a central role in processing all nutrients and most drugs. Finally, poor appetite, fatigue, nausea and other side effects of medications can make it hard to eat well.

Nutrition as part of HIV care plan

Good nutrition is an important part of an HIV care plan. Although there is still no cure for HIV, ART has given many people with HIV hope and renewed health. While nutritional strategies cannot replace ART, good nutrition can be an important part of your overall HIV care plan. While on ART, good nutrition and a healthy lifestyle are two important strategies to maintain good health, quality of life and ensure the body’s immune system is strong.

Building a healthy diet

Food is the foundation of nutritional health. Nothing can replace food. It can be supplemented, adjusted, increased or decreased, but not entirely replaced. Food provides the building blocks of carbohydrates, proteins and fats (the macronutrients), as well as vitamins and minerals (the micronutrients). The best way to make sure you’re getting all these nutrients is by eating a wide variety of healthy foods every day.

Understanding food

You are likely familiar with the terms, carbohydrate, protein and fat. They are the building blocks of food. They are also the building blocks of our bodies—they are used to create and maintain the physical structures of our bodies. Carbohydrates, protein and fat also provide energy for metabolism (the name for all the normal chemical reactions that go on inside the body). We usually use the term calorie when talking about food energy.
Carbohydrates, proteins and fats are called macronutrients because the body needs them in large amounts. Getting the right kinds and amounts of each macronutrient is critical to staying healthy.

Carbohydrates (carbs for short) are mainly used for energy. They fall into two groups, simple and complex.

Simple carbohydrates include sugars, fruits (especially juices) and white starchy foods such as white bread and white rice, white nshima. These foods are digested easily and so are fast sources of energy. When you eat simple carbohydrates, the level of sugar in your blood goes up quickly but is held within a normal range by insulin.

Complex carbohydrates are a healthy source of energy. Main sources of complex carbohydrates include whole grains, legumes (beans and peas) and vegetables and fruits. They raise the blood sugar levels more slowly and generally provide more fibre, vitamins and minerals than simple carbohydrates.

Carbohydrates are the most affordable foods and form the backbone of the human diet. Generally speaking, complex carbohydrates are a better choice than simple carbohydrates. The body handles carbohydrates best when they are spread throughout the day, so you should try to include them in every meal. Eat some fruits and vegetables every single day. Choose whole grain breads (brown) and cereals. It is recommended that at least half of your grain products every day should be whole grain.

Proteins are especially important for people with HIV. Main sources of protein are meats, fish, poultry and eggs, legumes and soy products, nuts and seeds, milk and dairy products like cheese, yoghurt, etc. Proteins have many important functions in every cell and system throughout the body. They are used to make cell structures, hormones, enzymes and components of the immune system. In general, people living with HIV need higher amounts of protein to maintain lean body mass and provide building blocks for the immune system. However, some medical conditions can be made worse by too much protein, so it is important to follow any directions your doctor gives you about your protein requirements. Try to eat protein-rich foods at least 3 times a day. Lower-cost protein sources include peanut butter, tofu, legumes, canned fish, kapenta, beans, eggs and milk.

Fats and oils are the most concentrated source of energy in our food supply. Some fats are necessary in our diets to provide building blocks—called essential fatty acids—that the body can't make. However, eating too much fat is dangerous because it can clog the arteries and contribute to problems with your heart and blood vessels. Healthy fats include monounsaturated fats and omega-3 fatty acids. Examples of healthy fats: olive oil, canola oil, flax oil, nut oils, ground nuts, avocados.

Some types of fats are more hazardous to our health because they increase the risk of heart disease. Saturated fat—found in animal fats, dairy fat and palm oil—should be limited to a very small amount. It is hard to completely avoid saturated fats because they occur naturally in many foods that are part of a healthy diet. Trans fats (or trans fatty acids)—found in many processed foods—are believed to significantly increase health risks and should be avoided. Choose lower-fat dairy products such as skim or 1% milk, low-fat yogurt, light cream cheese and lower-fat cheese (e.g. skim milk, mozzarella). Cut back on greasy, fatty foods, such as fried foods (e.g. chips) and fatty red meat. Use lean cuts of meat and trim off visible fat. Remove the skin from chicken and other poultry either before or after cooking. Baked goods and pastries are very high in fat (and not the good kind).

Don't forget the fluids! Your state of health can affect how much fluid you should drink. Check with your doctor. Fluids are required to keep the body's cells working smoothly. Because we lose fluid through urine, stool and sweat, it needs to be replaced each day. An easy-to-remember rule of thumb is to drink 8 glasses of water a day. However, the amount of fluid you need depends on your body size and how much water you lose. Also bear in mind that other factors can play a role in how much fluid you need. For example, some medications require a high intake of fluids to protect the kidneys, while some medical conditions can be made worse by drinking too much water. Be sure to follow any directions given by your doctor about how much fluid (water) to drink. It is better to get more of your fluids as water and less as sweet beverages (e.g. juice, drink crystals, soft drinks) and coffee. If you don't like the taste of water, add one or two slices of fresh lemon or lime to the water and store it in the fridge. If you're not used to drinking much water, fill a bottle or jug with the required amount each day (at least 2 litres) and do your
Chapter Fifteen: Healthy Living and Nutrition

best to drink all of it. Drink small amounts often throughout the day. Fluids come in the form of water, juices, milk, soups, herbal teas and, according to some experts, even coffee and tea. Alcohol does not count in fluid intake because it removes water from your body. Keep water at your bedside for drinking during the night.

Meal planning

Before looking at how to build a diet, a menu or even a meal using the fundamentals of good nutrition, stop for a second and think about this: You have gotten this far in life, so you must be doing some things right when it comes to food. But there is always room to do better. If you really want to know how you are doing, here’s something to try: For three days, write down everything you eat and drink. Try to include one weekend day in your three days. This should give you a general idea of your eating habits right now.

When changing your eating habits, start with one thing at a time. There is no way around it: Changing your eating habits is hard work. But do not think of changing everything at once. Start with one thing. When you succeed, feel good. When you slip, do not feel bad. The advantage of nutrition is that you always have a chance to do it better at the next meal or snack.

One of the keys to eating well is to make sure you have healthy food available when you are hungry. This can range from throwing an apple or some nuts in your bag for a quick, easy snack to planning a menu for several days. Healthy eating does require some thoughtfulness and preparation, including planning meals and purchasing the required groceries. There will be more of this kind of work in the beginning as you learn what works for you. As you become more knowledgeable, it will likely become easier. It might even become second nature.

A meal is more than just food

There’s a lot more to a meal than just the food. There is a whole emotional and social context that comes with food. Sometimes we use food to celebrate, sometimes to console. And we often use it as a way to spend time with other people. When thinking about meal planning, don’t forget this important aspect of food. And try to use it to make your life better. That could mean sharing a meal with friends or family or taking pleasure in the fact that you created the meal yourself. Living with HIV poses many challenges and taking charge of your nutrition can be a positive, enriching experience.
A sample food plan for one day

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<thead>
<tr>
<th></th>
<th>Fruits and vegetables</th>
<th>Grains</th>
<th>Milk and alternatives</th>
<th>Meat and alternatives</th>
<th>Fats and oils</th>
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<tbody>
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<td><strong>Breakfast</strong></td>
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<td>½ cup berries</td>
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<td>1 cup bran flakes</td>
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<td>1 cup milk</td>
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<td><strong>Lunch</strong></td>
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<td>1 cup vegetable soup</td>
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<td>1 cup green salad</td>
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<td>Salad dressing</td>
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<td>1 tbsp</td>
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<td>Chicken breast sandwich</td>
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<td><strong>Afternoon snack</strong></td>
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<td>Apple</td>
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<td>1 container yogurt (175 g)</td>
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<td><strong>Dinner</strong></td>
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<td>½ cup cooked carrots</td>
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<tr>
<td>½ cup cooked broccoli</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 cup brown rice</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Grilled fish</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Evening snack (good with meds)</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Banana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1 small whole grain bagel (Bun or bread roll)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Cheese (increase or decrease fat depending on meds)</td>
<td>1</td>
<td></td>
<td></td>
<td>2 tbsp</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>4 tbsp</td>
</tr>
</tbody>
</table>

This menu provides approximately 2,200 to 2,400 calories and 85 to 90 grams of protein.
In this plan, we have not worried too much about the total number of calories you are eating. By following the recommended servings and by listening to your body, you will likely have a good idea of how much food is enough. If you are trying to gain or lose weight, counting calories is a useful tool. You will most likely want to know how many calories to add or cut out rather than total numbers required.

Whatever diet you follow, make sure it meets your nutritional needs as a person with HIV. There are many factors that can affect your diet: medical conditions, religious beliefs, cultural practices or ethical concerns. There are so many variations that we cannot address them all here. Instead, try to get advice from someone, like a dietitian or doctor, who has experience with people in your situation.

**Food hygiene and sanitation**

When preparing food remember the motto “be clean”. People with weakened immune systems are more vulnerable to illness from food that has become contaminated by disease-causing germs. Often called “food poisoning,” the symptoms include nausea, vomiting, chills, cramps and diarrhea. They can be short-lived or can become chronic and difficult to treat, especially for people with HIV. Common types of bacterial infections are salmonella, campylobacter, listeria and E. coli. Other harmful substances can sometimes be found in food, like molds and industrial toxins such as mercury.

You usually have little control over food production, transportation, processing and storage, but you do have control over how you select your food and handle it at home.

**Keeping your food safe**

- When buying food, avoid damaged cans and packages. Buy only pasteurized milk, cheese, honey, apple cider and fruit juices. Check the “best before” date. Avoid cracked eggs and bruised or moldy fruits and vegetables. Buy cold and frozen foods last when shopping and go directly home to refrigerate or freeze them.

- When storing food, keep perishable items in the fridge and keep meats on the bottom shelf. Do not reuse plastic bags for food storage. If foods have become moldy (e.g. cheese) discard them because mold has invisible roots penetrating the food.

- Food preparation is one area where many people have acquired unsanitary habits. “Be clean” is the motto of food preparation: clean hands, clean work surfaces, clean utensils and clean foods. Wash your hands with warm, soapy water. Wash fruits and vegetables under running water. Thaw frozen foods in the fridge, not at room temperature. Avoid contamination by keeping raw meats, their juices and packaging away from other foods. After preparing raw meats, clean the preparation area and all the equipment and cutting boards with hot, soapy water. To be sure, you could also rinse with a weak bleach solution (1 teaspoon of bleach in 1 litre of water)

- When cooking, make sure all food from animals (including meats, poultry, fish and eggs) is well done. Always keep hot food hot and cold food cold. Cut the green part off potatoes and eat the white part inside. Do not eat uncooked cookie dough or cake batter because of the potential of salmonella in the raw eggs.

- Leftovers are safe and practical to eat if handled properly. Store leftovers in the fridge or freezer right away. If it is a large amount of hot food, place it in a container and sit the container into a large bowl of ice water to cool it down before refrigerating. Eat leftovers within 2 to 3 days; label them with the date so you know how long they have been in the fridge. Reheat leftovers to steaming hot. When in doubt, throw it out because contaminated food does not always look or smell bad.

- When eating out, choose restaurants that are clean and appear to have a high standard of food
sanitation. Eat cooked foods like well-done poultry, meat, fish and eggs. Hot foods should come to the table hot. Avoid salad bars, sandwich bars and juice bars. Take leftovers home and refrigerate immediately.

- When travelling, think even more about the safety of the food you eat and the water you drink. Some places you visit might not have clean water or safe food-handling practices.
- Reduce exposure to contaminants like mercury by eating a wide variety of foods and limiting food known to have high levels of specific toxins. Tuna, for example, is theoretically a healthy food but should be limited to about 2 to 3 servings per week because of high mercury levels. Pregnant women and young children are particularly vulnerable to the ill effects of mercury.

**Water safety**

Chlorinated the water is safe to drink because chlorination kills most of the germs that cause infection and diarrhea. Cryptosporidium is one germ that is not killed by chlorine, but it is not usually found at high enough levels to cause problems.

Use purified water if your CD4+ count is below 200 or if your water supply is not treated.

People with low immune function — especially with a CD4+ count of less than 200 — are at increased risk of getting infected by Cryptosporidium and may need to take special precautions (see below). People who obtain water from wells or other sources of untreated water should also follow these guidelines even if they have a high CD4+ count. If necessary, it also may be prudent to use treated water to wash foods and brush your teeth.

**Treating your water right**

Use one of the following three methods:

- Boil tap water for 1 minute at a rolling boil. Boil water once a day and keep it in the refrigerator. Boiled water should be used for drinking, ice cubes and making juice, coffee or tea.
- Filter the water with filters that remove all particles that are 1 micron in size or larger. Some commercial filters are not small enough. Make sure the filter you are using is the right size. Filters can also be used on taps.
- Use bottled water that has been distilled or treated by reverse osmosis.

Not all bottled water has been treated, especially the water sold in individual-size bottles. Water coolers and other containers for bottled water can be a major site of microbial growth. Bacteria and molds grow in these containers; they must be thoroughly cleaned inside with a vinegar solution at least once a month. Do not reuse individual-size water bottles. They can harbour bacteria and molds.

**What’s different for people with HIV**

Most of these guidelines apply to everyone but they are especially important for people with lower CD4+ counts. People with HIV with a CD4+ count less than 200 have the highest risk of getting sick from food or water contamination and should follow these guidelines carefully.

THE END
The MAC OTZ Plus Project was adapted from the Operation Triple Zero (OTZ) Model, to empower Adolescents Living with HIV (ALHIV), to adopt and co-produce interventions that address poor health outcomes.
Sources of Information


20. WHO (2013, November) ‘HIV And Adolescents: Guidance For HIV Testing And Counselling And Care For Adolescents Living With HIV’.
CONTACT US

+260 211 242 257 - 9
info@cidrz.org
www.cidrz.org
CIDRZ  cidrizinfo  cidrzofficial1  cidrzgo

centre-for-infectious-disease-research-in-zambia-cidrz