Let Us Know About HIV and AIDS Achieving Triple Zeros

Handbook on Prevention of HIV and AIDS for Lecturers in the Sri Lanka Institute of Tourism & Hotel Management

2017

Zero New HIV Infections

Zero Discrimination

Zero AIDS related Deaths

NATIONAL STD/AIDS CONTROL PROGRAMME

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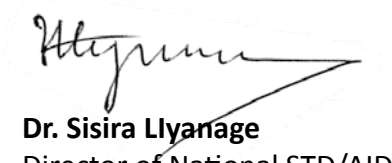
Preface

Globally HIV has become a major public health issue as there had been more than 35 million deaths due to HIV. As at the end of 2016, there were approximately 36.7 million people living with HIV. Sri Lanka is experiencing a low level of HIV epidemic. Prevalence of HIV in any key population is <5% and <1% in the general population. But there is an upward trend of new HIV infections in Sri Lanka during recent past years. Similarly, the proportion of new HIV infection among males and 15-24 years age category is increasing. Therefore it is identified that it is high time that we increase awareness among general population as well as youth group on prevention of HIV and STI. Need of HIV prevention among youth has been identified in the National HIV Strategic plan 2018-2022.

This valuable publication, ***"Handbook on Prevention of HIV and AIDS for Lecturers in the Sri Lanka Institute of Tourism and Hotel Management"*** is such an effort to improve the knowledge of lectures in Sri Lanka Institute of Tourism and Hotel Management.

As this book is a study material for lecturers in the tourist sector, this provides core information regarding physical, mental & social changes of adolescents, prevention of HIV and other Sexually Transmitted Infections, vulnerable factors for tourist sector and key population groups & vulnerable groups that should be clearly understood by them to keep in line with the prevention strategies used. This will be a resource material to complement their teaching.

I applaud the great effort taken by multi sectorial unit of NSACP to publish this book. I highly acknowledge Dr. Janaki Vidanapathirana, Consultant Community Physician, Dr. Buddhika Senanayake, Senior Registrar in Community Medicine, Dr. Nimali Wijegoonewardena, Registrar in Community medicine, and Dr. Mekala Fernando, Registrar in Community Medicine for their commendable contribution in writing this valuable book. Special thanks go to the team of the multi sectorial unit of the National STD/AIDS Control Programme for their commitment and support during this whole process.



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Achieving Global Targets by 2030:
Zero New Infections, Zero AIDS Deaths
&
Zero Discrimination

Session 1:

Let Us Know about Youth and Adolescence

The Existing Risks for Youth

Adolescents – Adolescents are young people between the ages of 10 and 19 years. Adolescence is a developmental stage which consists of emotional, social, cognitive, and physical changes. It is a period marked by rapid physiological changes, increased independence from family, prioritization of peer relationships, initiation of intimate partner relationships, identity formation, increased awareness of morals and values and overall cognitive and emotional maturation. The adolescent period is the period of developmental transition between childhood and adulthood, involving multiple physical, intellectual, personality and social developmental changes. The onset of puberty signals the beginning of adolescence, and puberty now occurs earlier, on average, than in the past. Puberty is the process of physical changes through which a child's body matures into an adult body capable of sexual reproduction to enable fertilization. It is initiated by hormonal signals from the brain to the gonads: the ovaries in a girl and the testes in a boy.

Adolescence is the transitional phase of growth and development between childhood and adulthood. The World Health Organization defines an adolescent as any person between ages 10 and 19. This age range falls within the WHO definition of "young" people, which refers to individuals between ages 10 and 24.

Physical changes

Adolescence is one of the most rapid phases of human development. Although the order of many of the changes appears to be universal, their timing and the speed of change vary among and even within individuals.

In girls, the pubertal sequence entails

- Initial breast elevation
- Beginning of growth spurt
- Appearance of pubic hair
- Increased size of uterus, vagina, labia, clitoris
- Further breast development
- Peak of growth spurt
- Menstruation
- Attainment of adult height (about 2 years after the start of menstruation)
- Completion of breast development
- Completion of pubic hair growth

In boys, the pubertal sequence entails

- Enlargement of testes
- Changes in texture and color of scrotum
- Increased penis size
- Appearance of pubic hair
- First ejaculation
- Peak of growth spurt, followed by more growth
- Growth of facial hair
- Increased size of larynx and vocal cords cause the voice to deepen
- Completion of penis growth
- Attainment of adult height
- Completion of pubic hair growth

Common physical changes of girls and boys occurring in adolescence

- Skin becomes oily
- Frequent appearance of acne
- Growth of hair: in face, axilla and groin area
- Change of voice
- Increased sweating
- Increase in height and weight
- Experiencing sexual emotions

Mental and Social Changes during Adolescence

- **Searching for identity and self-consciousness**:

  Young people are busy working out who they are and where they fit in the world. This search can be influenced by gender, peer groups, cultural background, media, school and family expectations. Boys observe their faces after shaving. Both males and females observe their faces after combing their hair in different ways.

- **Seeking more independence:**

  This is likely to influence the decisions they make and the relationships with family and friends.

- **Seeking more responsibility and taking leadership**:

  Both at home and at school.

- **Thinking more about "right" and "wrong":**

  Teenagers start developing a stronger individual set of values and morals.

- **Taking on challenges:**

The nature of teenage brain development means that teenagers are likely to seek out new experiences and engage in more risk-taking behaviour. Adolescents take various challenges including life challenges without a critical assessment.

- **Starting to develop and explore a sexual identity:**

  Your child might start to have romantic relationships. These are not necessarily intimate relationships. For some young people, intimate or sexual relationships don't occur until later on in life.

- **Associating more with peer groups** :
  Influenced more by friends **(Peer pressure)**

- **Following peers:**
  Many follow peers when it comes to behaviour, sense of self and self-esteem.

- **Mood changes:**

  They show strong feelings and intense emotions at different times. Moods might seem unpredictable. These emotional ups and downs can lead to increased conflict.

- **Communicating in different ways:**

  The internet, cell phones, and social media can significantly influence how they communicate with friends and learn about the world.

- **Being more sensitive to others' emotions:**

  Young people get better at reading and processing other people's emotions as they get older. While they're developing these skills, they can sometimes misread facial expressions or body language.

Risk Taking Behaviour of Youth and Adolescence

The physical changes that occur during puberty give rise to a variety of social and emotional changes. First, the ongoing physical maturation process directly affects the body and brain to alter children's needs, interests, and moods. Then, as children start to look and act differently, an array of social influences further accelerate the social and emotional changes children experience.

As children observe that their bodies are changing, they may experience a new and unfamiliar set of social experiences. Reinforced by their first enjoyable experiences of sexual arousal, and by their peers and culture, they become interested in forming what can become intense, romantic, and sometimes sexualized relationships with others. This will lead to risk taking behaviours among adolescents.

The physical changes associated with puberty become the basis for new emotional experiences. For example, it is common for parents to note that their children become more moody and irritable during this period of their lives. This moodiness is commonly attributed to the sudden and fluctuating hormonal levels, or "raging hormones". It is certainly true that sex hormones are powerful chemical agents that can affect the mood.

Adolescent Brains Are Still Maturing

A second factor that complicates adolescent moodiness is that their brains are still physically maturing. Children's brains are not fully developed until they are in their early 20's. This incomplete brain development is responsible for much of the cognitive and emotional immaturity that can so easily frustrate parents.

Brain's incomplete physical development is also in large part responsible for youthful emotional immaturity. Youth have more difficulty than mature adults in regulating their emotions and putting events in proper perspective. This will affect risk taking behaviours among adolescents.

Session 2:

Let Us Know about Sexuality

Sexuality

Sexuality is diverse, deeply personal and includes many parts. It is how people experience and express themselves as sexual beings. It is much more than body parts and sex. Sexuality refers to your total self. It includes the physical self, mental self, social self, emotional self and the ethical self. Physical self refers to the way you look as a man or a woman, while the mental self refers to the way you think as a man or a woman. The way you interact with others refers to the social self, while the way you feel about yourself and others refers to the emotional self. The way you value relationships is your ethical self. Sexuality includes sex, gender, gender identity and roles, sexual orientation, sexual experiences, thoughts, ideas and fantasies, as well as how we experience intimacy, touch, love, compassion, joy and sorrow.

Gender Identity

This refers to a person's perception of having a particular gender, which may or may not correspond with their birth sex. Majority of the people show perception of physical attribute at birth, while, when it is different, it is referred to as transgender.

Gender

Gender refers to the socially constructed roles, behaviours, activities, and attributes for males & females. It depends on the attitudes of the people and where they live. Societies decide the resources men and women can access jointly or separately, the work they can perform, the clothes they wear, and the education level that they are allowed to acquire.

Gender Stereotyping

Gender stereotyping is defined as an overgeneralization of characteristics, differences and attributes of a certain group based on their gender. For example, women are understood as shy and passive, organized and clean, while men are identified as tough, aggressive, dominant and self-confident, with regard to their personality traits. When domestic behaviours are concerned, women are expected to cook and do housework, while men are identified to be better at household repair work. Even occupations come into this, where certain occupations like teaching, nursing and secretarial jobs are thought to be more suitable for women, while mechanics, construction work, plumbing and engineering are thought to be more suitable for men. Even with regard to physical appearance, women are expected to be short, slender and small, while men are supposed to be tall with broad shoulders.

Sexual Orientation

Sexual orientation is a person's sexual identity in relation to the gender to which they are romantically attracted. It can be heterosexual, homosexual or bisexual. Heterosexuals are those who have emotional, romantic or sexual attraction to members of the other sex. Homosexuals have emotional, romantic or sexual attraction to members of one's own sex, while bisexuals have emotional, romantic or sexual attraction to both men and women. It is noteworthy that homosexuality is not a disease. Around three percent of men are homosexual in the Asian setup, and it is influenced by genetic, psychological and environmental factors.

Transgender

The term "*transgender*" refers to people whose gender identity is different from their assigned sex. Trans-men, trans-women, as well as cross dressing people and trans non-binary people, come under the Transgender Umbrella. It is important to understand that being transgender is not a disorder, nor is it a sexual orientation.

It is estimated that, in the global scenario, 0.1%-1.1% of reproductive age adults belong to the transgender population. As for Sri Lanka, the evidence about this population is sparse and there is no size estimation. Transgender identity can occur due to genetic reasons or prenatal hormone levels, and can appear in the early or late adolescence period.

How Gender Based Violence affects HIV Infection

It is identified that violence against women is associated with an increased risk of acquiring sexually transmitted infections, which is a risk factor of HIV. Fear of violence can prevent women from negotiating safe sex in terms of using condoms. Studies have shown that those women who had experienced coerced sex were more likely to use condoms inconsistently. Fear of violence was also found to be a barrier to HIV disclosure. It also prevents women from seeking voluntary counseling and testing for HIV, coming back for their test results, or getting treatment if they are HIV positive or receiving services to prevent mother-to-child HIV transmission.

Violent sexual assault can result in trauma to the vaginal wall that allows easier access to HIV. Those who are sexually abused as children are known to have a higher tendency for engaging in behaviors known to be risky for HIV as adults, and also they are more likely to experience sexual or domestic violence. To add to this, boys who witness or experience family violence are more likely to commit sexual assault and rape. It is identified that men who are violent toward their intimate partners are more likely to have multiple sexual partners than men who are not violent toward their partners, which is a risk behavior for acquiring HIV. It is found that in overall, abused women are at greater risk of acquiring HIV, and women living with HIV have more lifetime experience of violence than HIV-negative women.

Key Population Groups and Vulnerable Youths

Key populations are groups of people at highest risk of HIV acquisition and transmission. They are disproportionately infected with HIV compared to the general population in many settings. They frequently face legal and social challenges that increase their vulnerability to HIV, including barriers to access HIV prevention and treatment. Key populations include Men who have sex with Men (MSM), people who inject drugs, Transgender people, Female Sex workers (FSW) and Beach Boys.

Recent studies suggest that people who inject drugs are 24 times more likely to acquire HIV than adults in the general population, sex workers are 10 times more likely to acquire HIV and that gay men and other men who have sex with men are 24 times more likely to acquire HIV. In addition, transgender people are 49 times more likely to be living with HIV and prisoners are five times more likely to be living with HIV than adults in the general population. Globally, new infections among key populations and their sexual partners accounted for 36% of all new HIV infections

in 2015. In addition to that, Sri Lanka recognizes Beach boys (BB) as a group of key populations in Sri Lanka.

Who are the Vulnerable Groups?

Vulnerability refers to unequal opportunities for people that lead to a person becoming more susceptible to HIV infection. There may be different groups in local settings. These populations are not affected by HIV uniformly in all countries. Each country should define the specific populations that are vulnerable and the key to their epidemic and response, based on the epidemiological and social context. Sri Lanka identified several vulnerable population groups, namely, armed forces, prisoners, tourist sector and both internal and external migrant populations or it may be urban slum youth or youth on the street. In tourist sector, vulnerable groups include tourist guides, room boys, hotel workers, etc.

Session 3:

Let Us Know about Sexually Transmitted Diseases

Sexually Transmitted Infections (STIs)

These are also referred to as **Sexually Transmitted Diseases (STD)**. These are infections that are commonly spread by sex, especially vaginal intercourse, anal sex or oral sex. Most STIs initially do not cause symptoms. This results in a greater risk of passing the disease on to others. Symptoms and signs of the disease may include vaginal discharge, penile discharge, ulcers on or around the genitals, and pelvic pain. STIs acquired before or during birth may result in poor outcomes for the baby. Some STIs may cause problems with the ability to get pregnant.

More than 30 different bacteria, viruses, and parasites can cause STIs. Bacterial STIs include chlamydia, gonorrhea, and syphilis among others. Viral STIs include genital herpes, HIV/AIDS, and genital warts among others. Parasitic STIs include trichomoniasis among others. While usually spread by sex, some STIs can also be spread by nonsexual contact with contaminated blood and tissues, breastfeeding, or during childbirth.

Why do Sri Lankans who are working in the tourist sector need to worry about Sexually Transmitted Infections?

- Sri Lanka has been identified as one of the best tourist destinations in the world. The number of tourists arriving to Sri Lanka is increasing every year. Travel and tourism may enhance the probability of having sex with casual partners and increase the risk of contracting sexually transmitted infections.

- These infections are not uncommon in Sri Lanka
- These infections can rapidly spread among sexually active youth
- Inadequacy of treatment can lead to serious complications (infertility, sexual dysfunction, etc.)
- Often STIs' are asymptomatic; therefore infected people do not seek medical advice.

Curable and Non- curable STIs

Some STIs are curable and some are not. This is easiest to understand if you divide STIs into two categories: **Viral and Bacterial STIs.**

VIRAL STIs are not curable. Herpes, HPV/genital warts, Hepatitis B and HIV are few examples. They can all be treated to control symptoms or to help a person live a healthier life. Hepatitis B infection can be prevented if a person gets the Hepatitis B vaccine before he or she is exposed to the virus. Unfortunately, there is no permanent cure for viral infections, but can be effectively controlled by the drugs.

BACTERIAL STIs are curable. STIs caused by bacteria can be cured usually with the use of antibiotics. Chlamydia, gonorrhea, and syphilis are examples of bacterial infections. If a person is diagnosed with a curable STD, he or she should inform partners so that they can be tested and treated as well. Taking all medication as prescribed by the health care provider and follow up after completion of medication is essential to gain permanent cure.

Iceberg Phenomenon

Iceberg phenomenon of any disease gives a picture of the spectrum of diseases in a community. The visible part of the iceberg denotes the clinically apparent cases of the disease in the community. The part of the iceberg below the water level denotes the latent, subclinical, undiagnosed and carrier states in the community, which forms the major part. The hidden part is especially important in diseases like STIs

What are the vulnerable sexual behaviours?

- Frequent changing of sexual partners
- Engaging in sex work
- Engaging in sex with sex workers
- Having sex with persons who visit sex workers

If you have had at least one incident of unprotected sexual intercourse, you have a higher risk of developing a sexually transmitted infection

Features of STIs:

- Painful and non-painful ulcers

  These are ulcers and vesicles seen in the affected areas (penile, vaginal, oral and anal regions). The genital ulcers commonly seen are those due to herpes simplex virus infection and syphilis. More than one of these diseases can be present in a patient with genital ulcers.

- Vaginal discharge

  It is the spontaneous complaint of a change in vaginal discharge in terms of quantity, colour or odour. This is most commonly due to vaginitis/vaginosis but may also be due to cervicitis. Trichomonas vaginalis (TV), bacterial vaginosis (BV) and Candida albicans are the commonest causes of vaginal discharge. Women with Neisseria gonorrhoeae (NG) and/or Chlamydia trachomatis (CT) infections of the cervix may present with abnormal vaginal discharge. The symptom of vaginal discharge is highly indicative of vaginal infection but poorly predictive of cervical infection. Physiological discharge: healthy women may have a variable amount of clear and white discharge from the vagina. It usually increases before and after menstruation and becomes more watery when a woman is in the mid cycle. It also increases during pregnancy, while taking oral contraceptive pills (OCP) and when an intrauterine device (IUD) is in place.

- Urethral Discharge

  The major pathogens causing urethral discharge are Neisseria gonorrhoeae (N. gonorrhoeae) and Chlamydia trachomatis (C. trachomatis).

- Lower abdominal pain

  Lower abdominal pain is often the presenting feature of women with pelvic inflammatory disease (PID). The term pelvic inflammatory disease (PID) refers to infections of the female upper genital tract: the uterus, fallopian tubes, ovaries or pelvic cavity. Other features include eye discharge, lymphadenopathy, and pain during sexual intercourse.

Complications of sexually transmitted infections:

- Subfertility
- Infertility
- Mental burden
- Organ Failure
- New born Complications
- Affecting the economy of the country due to affecting the sexual active group
- Ectopic pregnancy
- Blindness

Session 4:
Let Us Know about HIV/AIDS

Global and Regional Situation of HIV

HIV continues to be a major global public health issue, having claimed more than 35 million lives by 2016. There were approximately 36.7 million people living with HIV at the end of 2016. The WHO African Region is the most affected region, with 25.6 million people living with HIV in 2016. The African region also accounts for almost two-thirds of the global total of new HIV infections. Asia and the Pacific are the regions with the second highest number of people living with HIV in the world. Three countries - China, India, and Indonesia – account for around three-quarters of the total number of people living with HIV in the Asia Pacific region.

Though the period 2010 – 2015 saw an overall decline of 5% in new infections, progress in reducing new infections has slowed in the recent years and new HIV infections are on the rise in some countries. It is estimated that currently, only 70% of people with HIV know their status. The remaining 30% – or 7.5 million people – need to access HIV testing services.

What is the Present HIV Situation in Sri Lanka?

Currently, Sri Lanka is experiencing a low level of HIV epidemic which is indicated by a HIV prevalence of <5% in any defined key population and <1% in the general population. People living with HIV in 2015 were estimated as 4100, while in 2016 it was 3900. HIV prevalence rate in the adult population (>15 years) was less than 0.1% at the end of 2016. Detection of the first patient with HIV in Sri Lanka dates back to 1987, and since then the National STD/ AIDS Control Programme (NSACP) reports a cumulative

number of 2688 HIV positives by the end of the 2nd quarter of 2017, while the cumulative AIDS case reported is 677. There is a total of 117 foreigners reported to be HIV positive up to date. The cumulative number of prenatally acquired HIV is 81 as at the end of the 2nd quarter of 2017. In 2016, a total of 1,129,246 HIV tests were carried out (the majority of tests were carried out by blood banks) and based on the results of those tests, HIV Sero-positivity was 0.02%. The majority of people tested positive were male, and the male to female ratio amounts to 1.8:1. The cumulative AIDS deaths reported to the NSACP is 390 by the end of the 2nd quarter of 2015. Since 2011, the proportion of males with HIV is gradually increasing.

During 2016, the male to female ratio increased to 1.8:1. Sexual transmission accounted for 87.9% of all cases reported during 2016, where 36.5% of all cases was due to male-to male sexual transmission. However, in 11.2% of the cases, adequate data were not available to ascertain the probable mode of transmission. During 2016, a total of 249 HIV cases were newly reported in Sri Lanka. This is the highest number reported in a year since the identification of the first HIV infected Sri Lankan in 1987, and this amounts to about 21 persons newly reported with HIV for a month. The reported numbers represent only a fraction of HIV infected people in the country as many infected persons may perhaps not be aware of their HIV status, and in addition, stigma and discrimination towards HIV hinder seeking of HIV testing services.

With regard to the newly reported HIV cases in 2016, all three districts in the Western province and Galle district reported higher numbers than the districts in other provinces. Less than five cases were reported from districts in Northern, Eastern and North Central provinces, while no cases were newly reported from the Kilinochchi district during 2016.

Geographical distribution of reported HIV cases

Closer observation of data shows a small but a rising trend in the prevalence of HIV infection among male to male or bisexual relationships over the years, while the predominant mode of HIV transmission still continues to be heterosexual. According to the Sentinel sero-surveillance conducted in 2016, Men who have sex with men (MSM) is the most high-risk key population with a HIV prevalence of 1.5% and an overall syphilis prevalence of 6.4%.

During 2016, around 50% of all males reported with HIV gave a history of male to male sexual contact. Most of these men are married, thus causing added implications on the transmission to women and to their babies. There are no HIV cases reported due to blood transfusions since the year 2000. Since 2011, all pregnant women diagnosed with HIV infection, who received services for the elimination of mother to child transmission, delivered HIV uninfected babies, and 1% of reported cases had a history of injecting drug use in the same reporting period. The rate of HIV among young (15-24 year age group) shows a slow but a steady upward trend since 2003. Colombo, Gampaha and Puttalam districts show the highest HIV rates, with over 100 HIV cases reported during the year 2015. The data indicates that the number of reported HIV positives to the NSACP per quarter has doubled compared to the situation 6 years ago. The largest proportion of people with HIV falls into the age category of 25 to 49 years (around 75%), and this age category continues to dominate over the reporting years. Around eighteen percent (18%) of the new HIV positives was above the age of 50 years at the time of diagnosis in 2016.

The age category of below 15 years, which is an equivalent to prenatally acquired HIV, has a cumulative figure of 3%. Early diagnosis will improve the quality of life of People Living with HIV

(PLHIV) and prognosis due to early linkage to HIV care and ART treatment. Since 2013 there is a slight reduction of AIDS (later stage of infection) stage patients among the reported HIV positive cases. During 2015, over 90% of reported HIV cases were linked to care during the same year. Stringent measures taken over the years to motivate all diagnosed HIV positive cases to link with HIV services have been productive. It should be noted that the number of new cases identified annually is increasing. This may be due to increasing of the incidence or increasing of HIV testing, or both. Most of the risk behaviours that facilitate the spread of HIV exist within the country. Hence, necessary policy development & legislation, strengthening of national coordination through multi-sectoral approach, community participation and capacity building should be further strengthened.

HIV and AIDS

What is HIV?

The letters HIV stand for Human Immunodeficiency Virus. There are two types of HIV: HIV-1 and HIV-2. HIV-1 is responsible for a vast majority of infections globally, including in Sri Lanka. Only certain types of body fluids (Eg: blood, semen, pre-ejaculatory fluid, rectal secretions, vaginal secretions, CSF, breast milk, etc.) of an HIV-infected person carry a higher concentration of the virus which is adequate for effective transmission to another person following an exposure. Followed by a significant exposure, these high-risk body fluids must come into contact with a mucous membrane, tissue or else directly enter into the blood stream (from a needle or a syringe) for HIV transmission to occur. Vagina, glans penis, and the oral cavity are lined by mucous membranes. When a person has a sexually transmitted infection (STIs), he or she has a higher risk of acquiring the HIV infection via unprotected sex, in comparison to a person without

an STI. This can be explained by two methods; Firstly, if the STI causes irritation or ulcerations (eg: syphilis, herpes or human papillomavirus), HIV can be effectively transmitted during sexual contact. Secondly, even when STIs do not cause ulcerations (e.g., chlamydia, gonorrhea, trichomoniasis) HIV transmission is still enhanced as the local inflammation can increase the number of cells that can serve as targets for HIV.

HIV attacks the immune system of the body. Once the HIV enters the body, it attacks the CD4 receptor bearing cells (T helper cells and monocytes), which help the immune system to fight against infections. CD4 cells are a type of white blood cells that play a major role in protecting the body from infections. CD4 cell count of a normal individual ranges from 500 to 1,600 cells/mm3. HIV gradually invades the immune system by attacking and killing CD4 cells during its multiplication and spreading throughout the body. Thus, gradually, the number of CD4 cells is depleted in the body, making the person vulnerable to opportunistic infections and malignancies. The symptomatic stage of the infected individual due to opportunistic infections or malignancies is known as AIDS.

What is AIDS?

AIDS stands for Acquired Immunodeficiency Syndrome. AIDS is the final stage of HIV infection, but everyone doesn't advance to this stage. Usually, it takes 8-10 years to develop AIDS after acquiring the HIV infection. However, it depends on the strength of the individual's immune system.

In the stage of AIDS, the immune system is significantly damaged, thus the individual becomes vulnerable to opportunistic infections and malignancies. AIDS is defined immunologically as a depletion of CD4 cell count below 200 cells per cubic millimeter of blood (200 cells /mm3). However, if an HIV infected person

has developed one or more opportunistic infections, he or she will be diagnosed to have AIDS, regardless of the CD4 count. Without treatment, the prognosis of people who are diagnosed with AIDS is bad. People with AIDS need comprehensive and aggressive treatments to improve the survival.

What is the Window Period?

The window period is the time between potential exposure to HIV infection and the point when the test will give an accurate result. During the window period, a person can be infected with HIV and be infectious but will have a negative HIV test. The time between HIV acquisition and the production of enough HIV antibodies by the body to be detected by an HIV test is called the window period.

Why is Sri Lanka Vulnerable for HIV?

Currently, Sri Lanka remains in a low prevalence epidemic, with an estimated HIV prevalence among adults (15-49 years) being less than 0.1% and that among individuals considered at higher risk of infection also being below 1%. The main mode of transmission is unprotected sex between men and women, with men who have sex with men and mother to child transmission also contributing for transmission. Though injecting drug use is not a common phenomenon, certain socioeconomic and behavioural factors noticed in the country may ignite an epidemic in the future. The presence of a large youth population, internal and external migration, clandestine but flourishing sex industry, low level of condom use, concurrent sexual relationships among key populations are some such factors. Low level of sexually transmitted infections (STI), availability and accessibility to free health services from the state sector, high literacy rate, and a low

level of drug injectors are protective factors.

It is unlikely that Sri Lanka will develop a generalized HIV epidemic, but concentrated HIV epidemics among female sex workers (FSW), men who have sex with men (MSM), and their sex partners cannot be ruled out. Sri Lanka has been identified as one of best tourist destinations in the world. Sri Lanka Tourism has surged to a new high record of 1,798,380 arrivals in 2015 and this number is gradually increasing every year. According to the World Health Organization, travel and tourism may enhance the probability of having sex with casual partners and increase the risk of contracting sexually transmitted infections including HIV/AIDS. In some countries, a large proportion of sexually transmitted infections now occur as a result of unprotected sexual intercourse during international travel.

Common Modes of Transmission

HIV is transmitted mainly by;

- **Having unprotected sex with someone who is infected with HIV.**

  Anal sex carries the highestrisk of transmission with regard to sexual transmission of HIV, whilst vaginal sex bears the second highestrisk. Receptive anal sex has a greater risk of acquiring HIV. This is because the lining epithelium of the rectum is less lubricated and micro abrasions created during anal sex facilitate the entry of the virus more efficiently. HIV transmission risk through vaginal sex is moderate, while from oral sex it is minimal. Through having multiple sex partners or having other STIs, the risk of infection through sex can increase.

- **HIV can be transmitted from the infected mother to the infant during pregnancy, birth, or breast feeding.**
  The overall HIV transmission from an infected mother to her child is estimated as 20 – 45%.

- **Sharing needles and syringes with an HIV infected person has a risk of transmission among intravenous drug users.**

  The risk of receiving blood transfusions and blood products that are contaminated with HIV is extremely small because of rigorous testing of all donated blood for transfusion transmitted diseases by the National Blood Center, Sri Lanka. Sharing of needles and syringes by intravenous drug users, however, can increase the risk of contracting HIV.

What are the Clinical Manifestations of HIV Infection?

Symptoms of AIDS appear in the most advanced stage of HIV infection. At this stage, the immune system is severely damaged and patients have a low CD4 cell count and a high viral load. An individual with HIV can present with a range of conditions till they develop AIDS.

Myths and Misconceptions on Transmission

There are several myths related to the transmission of HIV.

But, HIV does not spread by the following:

- Shaking hands
- Mosquitoes and flies
- Common use of cups, glasses, and plates
- Using common toilets

- Coughing or breathing
- Kissing or hugging
- Mutual masturbation

Modes of Prevention

Prevention of Transmission through Safe sex

- Abstaining from sexual intercourse till marriage or during temporary separation from the partner.
- Limit sexual exposure to one mutually faithful partner.
- Always use condoms regularly, correctly and consistently with anybody other than the faithful partner

Prevention of transmission through blood

- Do not share used needles or sharp equipment without sterilization.
- Minimize blood transfusions.
- Avoid blood donation if you have had unprotected sex

Prevention of Mother to Child Transmission

HIV can be transmitted from an HIV-positive woman to her child during pregnancy, childbirth and breast feeding. However, early detection and provision of ART timely to HIV-positive pregnant women can effectively stop their infants from acquiring the virus.

Without treatment, the likelihood of HIV passing from the mother to the child is 15% to 45%. However, antiretroviral treatment and other effective Prevention of Mother to Child Transmission (PMTCT) interventions can reduce this risk to below 1%. Considering the above prevention strategy, Sri Lanka too has started screening all pregnant mothers during early pregnancy for HIV. The aim is of this project is to start ART for them by 14 weeks of Period of Amenorrhea (POA) and to bring their viral load to undetectable levels by the time of delivery. The mode of delivery mainly depends on the viral suppression of the mother. Mothers who show undetectable viral load at the time of delivery can safely undergo normal vaginal delivery without having any additional risk of transmitting HIV to the infant. When the viral suppression is not satisfactory, the preferred mode of delivery would be Lower Segment Caesarian Section (LSCS). All babies born to HIV positive mothers will be given Anti-Retro Viral prophylaxis for 6 weeks or when diagnosed in late pregnancy for 12 weeks. When formula milk is available or affordable for the mother, breast milk is discouraged to minimize the risk of transmission. In Sri Lanka, formula milk is provided freely for the babies of all HIV positive mothers following delivery. Diagnosis of the exposed infant is done by DNA PCR method (done in India). Confirmed infants will be started on triple ART regimens without delay. For all exposed infants, BCG vaccine will be delayed until HIV infection has been excluded. Generally, other live vaccines should be avoided in infants with low immunity. Sri Lanka is currently working hard towards the Elimination of Mother To Child Transmission (EMTCT), and is planning to apply for the Certificate for EMTCT in 2018.

Advantages of Condoms and its Dual Protection

Consistent and correct condom use is the best way to prevent sexually transmitted infections including HIV infection when engaging in sexual activity. There is a wide range of condoms available, with varying levels of thickness, texture, material, size, colour and taste. Condoms work by forming a barrier between the penis, anus, vagina or mouth. This prevents high-risk body fluids (blood, semen or vaginal fluids) coming into contact with the uninfected surfaces. Not only condoms prevent STIs, but also they can prevent unintended pregnancies. Wearing a condom is the best way of practicing safer sex, especially because some STIs do not show symptoms in the early stages. Condoms are listed under the medical device category in the essential drug list of the Ministry of Health. Studies among serodiscordant couples have shown that consistent condom use reduces the risk of HIV transmission by 80% to 94%.

Condoms can help to protect fertility by preventing transmission of STIs, such as chlamydia and gonorrohea that cause infertility. Women whose partners use condoms are at a 30 percent lesser risk of infertility due to STIs. The contraceptive benefit of condoms is around 98% when used correctly and consistently. Evidence shows that condoms and lubricants do not reduce sexual pleasure.

Guide for Condom Education and Demonstration

1.	**Introduction to advantages of condoms** • Prevention of sexually transmitted infections including HIV • Prevention of unintended pregnancies • Reduce infertility by avoiding STIs • Increase pleasure by psychological relief from knowing the gained protection from STIs and unwanted pregnancies, and by preventing premature ejaculation through use of medicated condoms • Once the condom use is discontinued, fertility returns immediately • There is no need to depend on the stage of the menstrual cycle for initiation and use of condoms • Easily accessible, without a medical prescription • Contraindicated only in latex allergy • Enhance sexual pleasure by using condoms of different flavors and shapes

2.	**Educating how to assess the quality of the condoms**
	• Store condoms in a cool dry place • Do not keep the condoms in places where they are exposed to frequent pressure or friction • Importance of checking the expiry date • Check whether the packet is intact (air sealed), and lubricant is not leaking. • Keep away from insects • Prevent access to children
3.	**Educating about opening the packet**
	• Not to use teeth or a pair of scissors to open the packet • Open the packet by tearing from the saw toothed edge

4.	**Educating on wearing the condom**
	• Put the condom on before there is any oral, vaginal or anal contact • Condom should be worn only after penile erection. • Condoms should be worn during foreplay with partner's assistance • Take the condom out and find the correct side for use (Rolling edge should be facing out) • In a situation where the condom is put on upside down by accident, use a new condom • Before wearing the condom, retract the foreskin fully • Squeeze the teat of the condom with two fingers to expel air • Unroll the condom on the erect penis up to the base. If unrolling is difficult, suspect damage or rolling edges facing inside. May have to use a new one. • Once the sexual act is over the condom should be removed before the penis becomes flaccid. Withdraw the condom by holding the rim (base) of the condom. If the condom is damaged, emergency contraception needs to be used to prevent a pregnancy. However, there is no way to prevent transmission of sexually transmitted infections.

	• Use a tissue or paper to remove the condom to prevent direct contact with genital secretions. • Wrap the removed condom in a tissue or a paper and dispose it in a way similar to disposing garbage. • Avoid throwing the used condom into the toilet or open areas. • Do not wear two condoms at the same time. • Use only water based lubricants. Oil based lubricants can rupture the condom, so never use them (eg. creams). • Use lubricants for condoms during anal sex and if necessary during vaginal sex, to avoid condom breakage, or if either partner experiences irritation not attributed to an allergy. • Use a new condom with each act of intercourse or when having sex in different forms (oral, vaginal and anal) • Always keep a few extra condoms.

Treatments and Service Delivery Points

All island wide government STD clinics are geared to provide the following services.

- HIV/ STI screening
- Diagnosis and management of STI/HIV
- Condom promotion
- Counseling
- Health education
- Partner notification and epidemiological treatment
- Family planning services for people living with HIV

Government Hospitals Which Have STD Clinics

Any person can visit these clinics without a referral. Confidentiality will be strictly maintained.

Colombo Central Clinic	- 011-2667163
Ampara	- 063-2224239
Anuradhapura	- 025-2236461
Badulla	- 055-2222578
Balapitiya	- 091-2256822
Batticaloa	- 065-2222261
Chilaw	- 032-2220750
Embilipitiya	- 047-2230261

Galle	- 091-2245998
Gampaha	- 033-2234383
Hambantota	- 047-2222247
Jaffna	- 021-2217756
Kalubowila	- 0114-891055
Kalmunai	- 067-2223660
Kalutara	- 034-2236937
Kandy	- 081-2203622
Kegalle	- 035-2231222
Kilinochchi	- 021-2285327
Kurunegala	- 037-2224339
Mannar	- 023-2250573
Matale	- 066-2222261
Matara	- 041-2232302
Monaragala	- 055-2276826
Mahamodara	- 091-2245998
Mahiyangana	- 055-2257261
Negombo	- 031-2222261
NuwaraEliya	- 052-2222261
Polonnaruwa	- 027-2225787

Ragama	- 0112960224
Rathnapura	- 045-2226561
Trincomalee	- 026-2222563
Vavuniya	- 024-2224575
Wathupitiwala	- 033-2280261

Emphasis on free investigations, counseling, treatments, advices and referrals when necessary

Sexually Transmitted Infections prevention and control services, HIV counseling and testing services and HIV care services are rendered through STD Clinics island-wide. Currently, the National STD/AIDS Control Programme of the Ministry of Health is the sole provider of ART for the people with HIV infection in Sri Lanka, and there are 14 Anti-Retro viral Treatment (ART) centers.

Importance of Testing/Screening

An HIV infected individual can be identified prior to the symptomatic stage by HIV blood testing. This will help to;

- Start treatment at an appropriate time, thus prolonging life expectancy.
- Improve the quality of life.
- Minimize transmission to the others by taking treatment.
- Minimize mother to child transmission of HIV by planning the pregnancy and following medical advice.
- If the HIV test is positive, the person can be started on ART to stay healthy for many years and greatly reduce the chance of transmitting HIV to the sex partner.
- If the HIV test is negative, the person has more prevention tools available today to prevent HIV than ever before.
- All pregnant women should be tested for HIV so that they can initiate treatment early for prevention of mother to child transmission of HIV. When the infected mother's viral load is undetectable, transmission to the baby is very low.

Community Benefits of Undergoing HIV Tests

Treatment as prevention refers to HIV prevention methods that use antiretroviral treatment (ART) to decrease the risk of HIV transmission. ART reduces the HIV viral load in the blood, semen, vaginal fluid and rectal fluid to very low levels, reducing an individual's risk of onward HIV transmission.

Persons who know they have HIV can get medical care and take antiretroviral medications that can reduce HIV spread by as much as 96%. Thus, knowing the HIV status leads to effective treatment, keeping the HIV infected people healthy and living longer, and knowing that one is positive for HIV helps that person to make better decisions about sex and health care. Knowing that one does not have HIV infection can also help that person make better decisions about sex and health care.

Session 5:
Let Us Know about Stigma and Discrimination

Importance of Minimizing Stigma and Discrimination

Stigma is an undesirable or discrediting attribute that a person or group possesses, that results in the reduction of that person's or group's status in the eyes of the society.

Discrimination is both negative attitudes or particular behaviour or actions, that is made about a person, that results in their being treated unfairly and unjustly on the basis of their belonging, or being perceived to belong, to a particular group. Living with HIV presents certain challenges, no matter what the age is. But older people with HIV may face different issues than their younger counterparts, including greater social isolation and loneliness. Stigma is also a particular concern among older people with HIV. Stigma negatively affects people's quality of life, self-image, and behaviors, and may prevent them disclosing their HIV status or seeking HIV care.

Self-stigma is felt by people with HIV when they internalize the negative attitudes often associated with the virus. When HIV-related stigma (an attitude) turns into discrimination (an act) it becomes a human rights violation.

Silent epidemic due to Stigma and Discrimination

Stigma negatively affects people's quality of life, self-image, and behaviors. Stigma and discrimination lead to poor quality of care for people living with HIV. Limited uptake of treatment and prevention services cause an increased number of people living with HIV and it will cause a silent epidemic of HIV/AIDS. Therefore it is essential to help people living with HIV for positive living and reduce the epidemic of HIV.

Rights of Positive People

Human rights

The Government of Sri Lanka ensures that the human rights of people living with HIV/AIDS are promoted, protected and respected, and measures are taken to eliminate discrimination and combat stigma which will provide an enabling environment to seek relevant services.

These include the rights of everyone to life, liberty and security of the person, freedom from inhuman or degrading treatment or punishment, equality before law, absence of discrimination, freedom from arbitrary interference with privacy or family life, freedom of movement, the right to work (rights of the people living with HIV in the work places) and to a standard of living adequate for health and well-being including housing, food and clothing, the right to the highest attainable standard of physical and mental health, the right to education, the right to information which includes the right to knowledge about HIV/AIDS/STI related issues and safer sexual practices ,the right to capacity building of the individual in dealing with this condition, the right to participate in the cultural life of the community and to share in scientific advancement and its benefit.

However, steps shall be taken to prevent persons from willfully and knowingly infecting HIV to other persons. The responsibility and behavior of the media as stated in Article 28 of the Constitution of Sri Lanka which casts a duty to respect the rights of others on reporting on matters related to HIV/AIDS.

Session 6:
Let Us Know about HIV/AIDS Interventions

HIV/AIDS Interventions in the world of work

As the majority of the reported HIV infections are in the most productive 15-49 year age group, it is important to strengthen HIV/AIDS prevention efforts in the world of work. The Government of Sri Lanka, Employers' and Workers' organizations and private sector will be mobilized to play a key role in this effort and endorse adoption of the guidelines of the International Labour Organization (ILO) Code of Practice on HIV/AIDS in World of Work for development of workplace policy and programmes. It is important to ensure full respect for human rights and eliminate stigma and discrimination, coercion and violence. This includes the establishment of accountability mechanisms, the participation of affected populations and the establishment of processes to redress human rights violations.

How has The World Planned to End the AIDS Epidemic by 2030?

The world is committed to ending the AIDS epidemic by 2030, as part of the Sustainable Development Goals (SDG) with the support of all global partners. The Sustainable Development Goals are the goals which the United Nations Member States adopted unanimously in 2015. The lessons learned in responding to HIV will play an instrumental role in the success in achieving many of the Sustainable Development Goals, notably Sustainable Development Goal 3, good health and well-being, and the goals of gender equality and women's empowerment, reduced inequalities, global partnerships and just, peaceful and inclusive societies. Ending the AIDS epidemic by 2030 will include:

- Zero new HIV infections
- Zero discrimination
- Zero AIDS-related deaths

Fast Track Targets by 2020

Ending the AIDS epidemic by 2030 will require countries to take a Fast-Track approach during the next five years. It has been planned according to UNAIDS 90–90–90 fast track targets, which should be achieved by 2020. This comprises of:

- 90% of people (children, adolescents, and adults) living with HIV knowing their HIV status.
- 90% of people who know their HIV positive status receiving treatment.
- 90% of people on HIV treatment having a suppressed viral load so that their immune system remains strong and the likelihood of their infection being passed on is greatly reduced.

Global decision to reduce new infections to 500 000 by 2020 requires continued progress towards the 90–90–90 targets and intensive focus on a people-centered, combination approach.

Achieving Sri Lankan Targets by 2025

Despite the fact that the world has set the target of ending the AIDS epidemic to year 2030 as part of Sustainable Development Goals, Sri Lanka being a low prevalent country for HIV, has plans to achieve Triple Zeros by 2025 and is working with all the stakeholders towards that goal.

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