The basics of HIV/AIDS

Information for trainers
What is HIV?

- HIV (Human Immunodeficiency Virus) is a virus that causes a health condition in which a person is affected by a series of diseases because of poor immunity.
- HIV by itself is not an illness and does not instantly lead to AIDS.
- An HIV infected person can lead a healthy life for several years before s/he develops AIDS.
How HIV differs from other viruses infecting humans

- HIV only causes disease in humans
- Once the virus enters the body it lies dormant for many years and hence is known as a 'slow virus'
- Most viruses, like those causing measles, mumps and chicken pox, manifest themselves in 2-3 weeks after they enter the body. Hence the incubation period is short
- Whereas in HIV infection the incubation period is very long and runs into years
How HIV attacks the immune system

- HIV attacks white blood cells called T lymphocyte - which protect us against infections
- These infected cells become virus factories producing more viruses (HIV)
- These new viruses attack and destroy other T lymphocytes
- Over years, the number of healthy T lymphocyte drops to a critical level and the individual develops many infections
- The person is then said to have AIDS
What an HIV infected person looks like

- A person with HIV looks like anyone else
- You can not tell the difference between someone with HIV and someone without HIV by looking at them
What is AIDS

- AIDS - Acquired Immunodeficiency Syndrome - is a health condition
- It results from the deficiency of the body's immunity following HIV infection
- When the immune system weakens and loses its ability to fight diseases
  - The person has AIDS
Difference between persons with HIV and those who have AIDS

- People living with HIV appear healthy
- An HIV infected person does not develop AIDS for many years
- A person with AIDS is someone whose immune system is not working properly and gets many infections
- All persons with AIDS are infected with HIV, but not all persons with HIV infection have AIDS. AIDS is only the end stage of this infection.
How HIV is transmitted

- HIV is transmitted only through unprotected (without a condom) sex (vaginal, anal, oral) with an infected partner
- Transfusion of infected blood and blood products
- Contaminated needles and syringes
- From an infected mother to her baby before, during delivery or through breast milk
How HIV is diagnosed

- HIV can be diagnosed only by testing a person's blood
- Two tests are available
  - One that looks for the presence of antibodies produced by the body in response to HIV
  - A second one that looks for the viral particles
- These tests are freely available in government sexually transmitted infection clinics
What is the window period?

- The Window period is the time from when the person is infected to when tests can identify the person has HIV.
- For 3-4 months the HIV antibodies generally do not reach detectable levels.
- Even if the HIV tests are negative, during the window period, the amount of virus is very high.
- When a person is newly infected (but the tests do not indicate this) the risk of transmission is very high.
How long can HIV live outside of the human body?

- HIV is very fragile
- Outside of the body in a dry form, it dies immediately
- In a wet state, it does not live long when exposed to heat, detergents, or disinfectants
- When stored in blood banks at 4°C, it can live for about 3 weeks (or longer), or till the white cell disintegrates, but in a frozen state it can survive for years.
How HIV is not transmitted

- HIV cannot be spread by casual contact such as:
  - Touching
  - Holding hands
  - Body contact in crowded public places
  - Shaking hands
  - Working or playing together
  - Sharing food, vessels and clothes
  - Eating food cooked by an infected person
  - Light kissing
  - Mosquito and other insect bites
  - From swimming pools or from toilets
Why mosquitoes do not transmit HIV

- HIV does not survive or replicate inside the intestine of the mosquito, which is why mosquitoes cannot spread the HIV infection.
- HIV infection is highest among the sexually active group of 15 to 40 years.
- However, mosquitoes bite people of all ages and if they were able to spread HIV, the level of infection would be uniformly high among all ages.
Can HIV spread through kissing?

- Kissing on the cheek or on the lips carries no risk of transmitting HIV.
- In deep kissing there is a small risk:
  - Saliva of an infected person has small traces of the virus.
  - But these traces are not sufficient to cause the infection.
  - However, there could be bleeding gums or ulcers which when mixed with saliva could transmit HIV.
Is there a cure or a vaccine for HIV/AIDS?

- At the present time, there is no cure for HIV/AIDS
- Scientists are trying to develop a vaccine – a drug that will prevent people from becoming infected with HIV
  - But, no one is sure how long it will take to develop such a vaccine, or if the scientists will be successful
Are there drugs to control HIV/AIDS?

- Treatments for HIV can delay the onset of AIDS
- “Antiretroviral” drugs can reduce the level of HIV in a person’s body to almost undetectable levels
- They prevent HIV from reproducing itself and destroying the body’s immune system
- The medications, if taken correctly, can prolong the life of the infected person for many years
- However, these drugs are highly toxic, unpleasant to take and can cause serious side effects
The problems of stigma and discrimination

- Stigma and discrimination fuel the transmission of HIV
- It creates barriers to access to care, support and treatment services
- It silences discussion of its causes and appropriate responses
- Openness is a prerequisite to mobilize governments, communities and individuals to respond to the epidemic
- Concealment encourages denial and delays action
- It causes people living with HIV to be seen as a ‘problem’, rather than as a solution to the epidemic
HIV/AIDS in Sri Lanka

- Reported number of HIV/AIDS cases up to end of the 3rd quarter of 2007
  - Cumulative total of HIV cases: 1029
  - Mother to child transmission: 31
  - Cumulative AIDS deaths: 182