UNIT 1 REPRODUCTIVE TRACT INFECTIONS (RTI) / SEXUALLY TRANSMITTED INFECTIONS (STI) AND HIV & AIDS

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1.0 OBJECTIVES

After going through this unit, you will be able to:

- differentiate between RTI and STI;
differentiate between HIV and AIDS;

- state importance of knowing about these diseases;

- list modes of transmission and methods of prevention;

- identify myths and misconceptions, associated stigma and discrimination for people living with HIV and AIDS (PLHWA) and thus creating acceptance of people living with HIV/AIDS;

- describe the testing and treatment facilities available; and

- explain the role of teachers in creating awareness on RTI / STI, HIV & AIDS.

1.1 INTRODUCTION

You might have seen some of the awareness campaigns on TV or through various kinds of media regarding HIV & AIDS and sexually transmitted diseases. Explore the views your friends have regarding these diseases.

The number of people infected with the Human Immunodeficiency Virus continues to increase. The World Health Organisation estimates 33.2 million adults already infected and thousands of children have been born with the infection world over. In 2007 alone an estimated 420,000 Children are newly infected with HIV. Among the all people who have been infected with HIV in the past 20 years, about half became infected between the ages of 15 and 24.

Most of these infected with the virus are ultimately expected to develop AIDS. AIDS has killed more than 25 million people and an estimated 33.2 million people are living with HIV and about 2.5 million of whom are children.

Almost about 20% of HIV infected people are having STI infections. According to the U.S. Centres for Disease Control and Prevention (CDC), about 25% of sexually active teenagers get a sexually transmitted disease (STD) every year, and 80% of infected teens don’t even know they have an STD, passing the diseases along to unsuspecting partners. One important intervention that can help in curbing HIV infection and AIDS menace is preventing and treating Sexually Transmitted Diseases that increase the vulnerability of the people to HIV infections.

But people living with these infections face lot of other problems like stigma and discrimination in the society, making reaching out to these people and services almost difficult.

In this unit you will able to define and differentiate between RTI and STI and also define and differentiate between HIV & AIDS. You will learn about modes of transmission and prevention strategies; explore the myths and misconceptions and thus prevailing stigma and discrimination against people living with HIV & AIDS. You will also get information about testing facilities and treatments available for these diseases. The role that teachers can play in creating awareness about these issues will also be discussed in the unit.

1.2 DEFINITION & MAGNITUDE OF RTIs AND STIs

You might have noticed some of the temporary hutsment /tents pitched in isolated
areas with banners around them claiming that they would cure the diseases of private parts. One of the myths that they propagate is that the diseases of private parts can be cured by having sex with a virgin girl.

It’s a matter of real concern that most of adolescents don’t talk about the issues and afflictions involving their private parts. This is due to the culture of silence in society regarding these diseases. Complete treatment is available but if left untreated or treated wrongly they can cause havoc to the persons health and society by making them all the more vulnerable to HIV and AIDS, infertility etc.

**Sexually Transmitted Infection (STI):** Diseases which are transmitted during intimate contact (unprotected sexual intercourse, vaginal, oral and anal) are called sexually transmitted diseases. Commonly these diseases infect and damage sexual tract if not diagnosed and treated at right time and can also spread to other parts of body.

**Reproductive Tract Infections (RTI):** Reproductive organs include testicles and seminal vesicles along with sexual organs like penis in males, uterus, ovaries, cervix, sexual tract including vagina, that is a part of passage for giving birth to child, in females. These reproductive organs can get infected due to various reasons like poor hygiene of these parts especially during menstruation in females and also due to infections which spread through blood and can infect many other parts of body.

### 1.2.1 Difference between RTI and STI

It’s very important for you to know the differences between two as symptoms and signs of both are just the same. However, STIs e.g., gonorrhoea, HIV and syphilis are likely to spread through unprotected sexual intercourse route while RTIs will not spread through unprotected sexual intercourse route, though present in same location and manifest in same way. The reasons for their spread are mentioned in above paragraph on definitions. Hence, prevention strategies for the spread of both the diseases are quite different.

HIV is a sexually transmitted disease but it does not affect the reproductive tract. Tuberculosis affects reproductive tract but is not transmitted sexually.

**Magnitude and importance of RTI and STI**

You must have come across the incidence of RTI & STI been increasing steadily in some cases to high proportions. By any conservative estimates 6% of population in India suffers from STIs / RTIs, while for people living in poor hygienic and improvised surroundings, these infections are seen in up to 50% of population. Many STI/RTI patients, particularly girls and women have no overt/visible symptoms while others due to reasons of shame, guilt and taboo of talking about issues of sexuality don’t seek medical care, thus helping these infections to spread further and cause incurable damage leading to infertility or if already pregnant, in spread of these infection to her yet to be born child.

Those young people who have these infections are ten times more susceptible to acquire HIV in comparison to people who are not having STIs it is important to discuss about these infections and prevent them becouse if detected early and treated adequately, these infections are curable.
1.2.2 Common Sexually Transmitted Infections

Table below gives Common Sexually transmitted infections:

<table>
<thead>
<tr>
<th>Bacterial</th>
<th>Viral</th>
<th>Protozoal/fungal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhoea</td>
<td>Genital Herpes</td>
<td>Chlamydia</td>
</tr>
<tr>
<td>Syphilis</td>
<td>Hepatitis B</td>
<td>Candida</td>
</tr>
<tr>
<td>Non specific, mixed infections</td>
<td>HIV</td>
<td>Trichomonas</td>
</tr>
</tbody>
</table>

Now that you have read about RTI & STIs its magnitude and common STI, further discussion would be on sign and symptoms of STI.

1.2.3 Signs and Symptoms of Common STIs

These STIs have varied manifestations, but common symptoms are:

- Discharge which is foul smelling and itchy coming from the genital tract
- Ulceration on the genital organs
- Pain during urination
- Swelling in groin, or testicular swelling
- Pain in lower abdomen or lower back particularly in females.

1.2.4 Management of STIs

Treatment of some of these STIs is very easy, taking one dose of combination drugs based on the cluster of symptoms described above, would cure 80% of illnesses.

National programme has established these STI treatment services in most of the district hospitals all over India. You are advised to make adolescents aware of these infections and recommend proper treatment from a trained health care worker. This will prevent not only the spread of these infections but also stop the spread of HIV infection to an extent.

**Note:** Don’t forget to recommend the treatment of the partner along with the person suffering from STI. Not adhering to this plan will lead to re-infection if the physical relationship is made without a barrier contraceptive again with the same partner.
The following photographs on common Sexually Transmitted Infections.

Fig. 1.1: Blisters on penis

Fig. 1.2: Swelling and redness in vagina

Fig. 1.3: Infection in oral cavity
Check Your Progress 1

a) What is meant by STI and RTI and how do they differ from each other?
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b) List the common STIs and their symptoms.
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1.3 HIV & AIDS

As it was thought before, neither HIV nor AIDS is the problem of commercial sex workers and their clients only. Neither it’s the problem of Homosexuals (LGBTI-lesbians, gays, transgender, bisexual and interest) alone. Neither it’s a problem of injecting drug users alone; or those suffering from blood disorders that require frequent transfusions is only vulnerable to HIV.

Maximum number of HIV positive patients is young adults in the age group of 15-49 years, which contribute 89% of HIV positive population. Young people aged 15-24 accounted for an estimated 45% of new HIV infections worldwide in 2007. Young people need to know how to protect themselves from HIV and have the means to do so. Better access to testing and counselling will inform young people about their HIV status, help them get the care they need, and avoid further spread of the virus.

You have known about the magnitude of problem of STI and RTI. Now you need to know what is HIV/AIDS.

1.3.1 Definitions of HIV and AIDS

HIV—Human immunodeficiency virus, it is the name of the virus that causes AIDS.

Human because it only infects, survives, multiply and exits from human body only and Immune deficiency because the virus destroys the body’s protection mechanism (immune system) that fights against diseases.

Fig. 1.4: Structure of HIV virus
AIDS-Acquired Immuno-deficiency Syndrome. AIDS is called Acquired, because it is always caught, received (become infected) from someone else. Immune deficiency, as mentioned above, because the virus destroys the body’s protection mechanism (immune system) that fights against diseases and syndrome, because this illness has a variety and cluster of signs and symptoms.

1.3.2 Difference between HIV and AIDS

You would have been better informed regarding the difference while understanding definition of two, still HIV (Human immunodeficiency virus) is the name of the causative virus that can infect only humans through various mode of transmission that are mentioned in the following text. When the HIV enters the blood stream it targets the human body’s immune system cells—macrophages and T4 cells (one type of helper cells)—because these cells have on their surfaces a protein that the virus recognises. It then bores into the cells, hides there and repeats the reproductive process. It multiplies to millions, breaks the cells which harbours them and infects more number of cells. This way virus breaks down the body’s immune system, exposing the infecting person to a variety of life threatening infections collectively called opportunistic diseases. People with intact immune system would not contract these diseases even though they are prevalent in the environment.

AIDS (Acquired Immuno-deficiency Syndrome) indicates a spectrum of cluster of signs and symptoms which occur due to declining resistance power of human body caused by the HIV infection (entry, multiplication in human body with damage to the human immune system) by HIV.

1.3.3 Magnitude and Importance - India Scenario

Human Immuno-deficiency virus infection pandemic is the most serious health crisis the world faces today. India has the third largest number of HIV positive persons with an estimated 2.3 million infected persons. Adult prevalence of HIV infection in our country is 0.3% (0.27-0.47%). The prevalence rate for females is 0.29 %, while for males it is 0.43 % (NACO &UNAIDS).

The states contributing maximum numbers are Andhra Pradesh (1.05%) 22%, Maharashtra (0.74%) 20%, Karnataka (0.81%) 11% and Tamilnadu (0.39%) 10%.Tamilnadu does not any more look like to be high prevalent state (NACO). Manipur (1.67%) and Nagaland (1.2%) have a high positive percentage comparatively but contribute in small numbers. Rest of the states contributes about 37% of all HIV positive persons in India. The geographical distribution of the prevalence is almost the same in these states. However, one third of the districts in India are high prevalence states (NACO).

The goal of National AIDS control programme Phase-III is to halt and reverse the epidemic in India by 2012 by implementing an integrated strategy consisting of prevention, care and treatment of HIV and AIDS. Advent of drugs (Anti Retro Viral drugs-ART) has begun a revolution in management of HIV infection. Progression of HIV to AIDS takes an average of 7-10 years, so that AIDS will continue to develop from the existing pool of infected people for some time to come, no matter how successful our efforts are to curb the further spread of HIV infection.

In this section you will realize that AIDS is now everyones problem. Many of us
may be exposed to HIV infection unknowingly. However, those who are practicing high risk behaviour are more vulnerable than others. Many non high risk behaviour group persons have also been detected to be HIV positive, such as pregnant house wives attending ante-natal clinics.

In this context it is important to know about mode of transmission of HIV/AIDS.

1.3.4 Modes of Transmission, Signs and Symptoms

Modes of Transmission (photographs)

If one is infected with HIV, the virus can spread to another human being through the following ways:

a) By the direct contact with the blood of the infected person (transfusion of infected blood, use of infected equipments e.g., needles/instruments/syringes, transplantation of organs),

b) By sharing of sexual secretions e.g., semen, vaginal/semenal secretions (unprotected penetrative sexual intercourse-vaginal, anal),

c) By an infected mother to her unborn baby during pregnancy, or childbirth or during breastfeeding.
Some of these activities may be unintentional due to plain ignorance or lack of control for example blood transfusion, wife having physical relationship with husband.

Others can indulge in these activities intentionally (high risk behaviour), some of the examples are clients of commercial sex workers, injecting drug etc.

**Activity 1**

Discuss with two to three friends to find out what do they think of mode of transmission of HIV and record it.

### 1.3.5 Vulnerability of Adolescent to HIV/AIDS and STIs

Actions or behaviour indulged during adolescence can affect adolescent’s life opportunities, behavioural patterns and health. As these are the most productive years of life, ultimately it will affect availability of working people and national economies.

As mentioned above more than half of those newly infected with HIV worldwide are between the ages of 15 and 24, and an estimated 11.8 million people in this age group are living with the disease.

You must have realised while reading the above sections that there must be certain factors which increase the vulnerabilities of adolescents and particularly the girls while there are certain factors which put adolescent more at risk of acquiring STIs and HIV.

You will be wondering the difference between the two terminologies, vulnerability and risk. The risk factors are related to one’s behaviour while vulnerabilities are related to ones environmental or internal factors which are seemingly beyond one’s control.

i) **Risk Factors for STIs and HIV (relates to action and behaviours)**

- Age at sexual debut
- Frequency and kind of sexual intercourse an adolescent is engaged in
- Number and characteristics of sexual partners
- Extent of condom use
- Risk of violence
- Prevalence of STIs and HIV locally.

ii) **Vulnerability Factors for STIs and HIV (relates to ones environment)**

Vulnerabilities are due to disparities arising from age, culture, educational level, awareness or knowledge about HIV and STIs related issues, attitudes, lack of certain skills called life skills e.g., saying no to sex, poverty, gender, lack of services and law.

Research shows that most young people in the world do not know how to protect themselves from HIV, nor do they know how it is transmitted. Adolescents are poorly informed about how to protect them sexually, and are particularly vulnerable
Reproductive & Sexual Health Issues

1.4

to unwanted pregnancies, and STDs including HIV. Recent studies conducted in various parts of India show that sexual relations among unmarried young adolescents is on rise, especially in urban areas where an estimated 20-25% of unmarried young males and 6-10% of young females have experienced premarital sex.

Can knowledge alone ensure responsible behaviour on the part of adolescents? Can they recognise people and their intentions? Can only giving values to the adolescents make them follow the right and so called virtuous path? Many adolescents are victims of exploitative sex and drug abuse. It is the lack of life skills that predisposes the adolescents to STIs like HIV. Life Skills are competencies to adapt and maintain positive behaviour when there are challenges, demands and constraints of everyday life.

Another reason for their vulnerability is either complete lack of counselling and treatment facilities in some of the regions or lack of adolescent friendly services. It is further discussed in the following test.

iii) Vulnerability of adolescent girls (related to gender)

The male and female ratio of HIV positive people is changing very dramatically and feminization of epidemic is happening as 39% of all HIV positive persons are females. Reasons for this change in the profile of epidemic is due to many reasons while some of them are listed below.

Biological Vaginal factors: The thin lining and the relatively low level of acidity in the vagina render it more susceptible to infection. This thin lining is also more likely to be injured or damaged during the sexual act. Immature Local immune system: Young girls have had less lifetime exposure to STIs than older individuals and, consequently, fewer mucosal defenses. Protective hormonally driven mechanisms have not yet had time to develop fully.

Social: Inability to say no to sex whether in wed lock or out of wedlock due to gender issues, lack of life skills and poor place in negotiations as they are economically dependent on the partner. Safe practices and healthy behaviour helps in prevention of HIV/AIDS & STIs. In the following text you will read about preventive strategies for STIs and HIV infection.

1.3.6 Prevention Strategies for HIV/AIDS and STIs

There is a lot which we can do to save ourselves and our future generation from this serious infection. These prevention strategies are based upon decreasing the risk and vulnerabilities of people to acquire these infections. You will agree that for deceasing risk of adolescents, one need to change behaviour, while for decreasing vulnerabilities an inclusive multi-sectoral efforts are required from various Govt. departments, communities, Panchayati Raj institutions, families and individuals themselves.

Based on these facts following are the prevention strategies:

- Learn and teach the facts about growing up and HIV and AIDS to Young people and other gate keepers like parents, teachers, Panchayati Raj, stake holders, local leaders, health care providers etc. and remove their myths and misconceptions.
• Adolescents should postpone casual sex till they are ready to take responsibilities of themselves and their partners and the consequences of actions mentioned in the section on teenage pregnancy. Many other activities like hugging, cuddling, kissing or fantasizing also feel good and are safe.

• Being faithful to one’s partner and practice correct and consistent condom use are other alternatives.

• Promoting responsible behaviour towards self and others and developing skills not to let friends pressurize you into unsafe activities by learning and using life skills.

• Avoid using drugs by any route e.g. use of alcohol, inhaling or by needles, press may cloud one’s judgement and lead to unsafe sexual practices. If one is using needles, syringes or other instruments that pierce the skin like tattooing make sure they are sterile or new.

• There is a need to support HIV infected women and provide them access to safe delivery services and treatment that will prevent mother to child transmission. Administration of a single dose of a drug to HIV positive mother before delivery and to her baby soon after delivery, with all other precautions before, during and after delivery and during breast feeding would save the newborn from this deadly infection. All are equipped to provide care to infected woman for safe delivery.

• All blood which is to be transfused needs to undergo stringent testing to detect HIV positively and then discarded to save recipient from getting this infection. One should insist that hospital/nursing home using blood or blood products should have these essentials that have undergone testing and use them only when they are critically required. Every bag or bottle should have this information labelled on the bottle.

• Donate blood – one cannot get HIV infection by donating blood. All equipments used in blood donation process are sterile and used only once.

• Motivate more people for voluntary donation. Voluntary blood donation will reduce professional blood donors donating infected blood.

• Should one or ones relative requires blood transfusion, make it sure from treating physician that it’s really necessary to transfuse and then seek blood from relatives or friends. They are safer than buying blood from professional donors.

Activity 2

Most of the prevention strategies mentioned above involves personal behaviour of the individuals while one intervention requires availability of the condoms. You will like to know that Where from one can get condoms.

a) Free of charge from all government dispensaries and hospitals.

b) From integrated counselling and testing centres

c) From a nearby chemist shop or even from small grocery stores, malls, and even panwallahs.

Make a list of places from where you can get condom.
Check Your Progress 2

a) What is HIV and AIDS and how they are different from each other?

b) What are different modes of transmission of HIV and AIDS?

c) Why are adolescents and in particular adolescent girls more vulnerable to HIV infection and STIs?

d) List down the prevention strategies for HIV infection and STIs.

1.4 HIV & AIDS – MYTHS AND MISCONCEPTIONS AND ASSOCIATED STIGMA AND DISCRIMINATION

Though there are definite causes of HIV & AIDS, still people have myths and misconceptions. In the following text you would read about these.

1.4.1 Myths and Misconceptions

It is important to know that HIV is not transmitted by casual contacts like talking,
sharing clothes and sitting together, shaking hands, sharing utensils and eating together; coughing and sneezing through the air we breathe or any insect and mosquito bite.

**Fig. 1.6: Myths and Misconceptions**

HIV can be transmitted from person to person only if body fluid like blood, semen and vaginal fluid comes in contact with body fluids of an HIV-infected or AIDS patient.

The key to avoid infection is never allowing anyone’s body fluid to enter in your body. However, some of these myths and misconceptions are the root cause of stigma and discrimination being faced by the people living with HIV and AIDS.

**Activity 3**  
**Facts and myths**  
**Description of the activity**  
Provide each group with cards on which are written all myths or all facts about HIV and AIDS.
Divide students into groups. Have each group create a poster without a title on the cards. Each group decides whether their poster depicts myths or facts about HIV/AIDS, but does not tell their choice to the rest of class. Each group hangs its poster on the wall. The students must decide if the posters depict myths or facts and give reasons. At the end, the groups put a title on the posters.

**Outcome**

**differentiate facts and myths about HIV and AIDS**

### 1.4.2 Stigma and Discrimination

Even though HIV/AIDS is not contracted other than the reasons mentioned in section 1.4.2 still stigma, discrimination and societal denial associated with HIV infection and AIDS due to existing myths and misconceptions makes the life of individual and that of family members distressing. HIV and AIDS have profound effect on the individuals and the society. Few of me example are as following.

- The marginalisation of people living with HIV and AIDS render individuals and their families’ more vulnerable to HIV infection.

- They are sometimes even denied their lawful rights like access to health services, examples of such include refusal to provide treatment for HIV/AIDS and related illnesses, refusal to admit and provide care and support services, restricted access to facilities like toilet and common utensils, physical isolation in the wards and early discharge from the hospital etc.

- In home settings also they are stigmatised e.g., not able to use common water source, refusal to touch their belongings and isolating them in a room or even ostracising them in the communities for the fear of spread of infection. In their daily lives they face severed relationships, desertion and separations from the family members or relatives.

- The stigma and discrimination faced by the people living with HIV and AIDS have also been driving this in large scale epidemic as the people don’t get themselves tested fearing the stigma and discrimination they would be facing if their status is disclosed to the relatives and society. The societal and self-discrimination due to its association with sexuality and also thinking it to be without cure drives people living with HIV and AIDS not to come forward to seek treatment but spread the infections in silence.

- This discrimination of people living with HIV and AIDS is related more to questionable unacceptable sexual character in the eyes of the society rather than to their HIV positive status. In health settings this discrimination is related to its incurability and fear of contracting the diseases while performing even non-invasive nature of procedures on people living with HIV and AIDS.

- Due to this collective discrimination of society there is feeling of self-denial and stigmatisation in people living with HIV/AIDS pushing them into a state of hopelessness, self-isolation, and depression and even in some cases suicidal ideation. To save themselves from this agony of stigma and discrimination, most of them take up a path of fight or flight response by going underground rather than getting them tested and disclosing their status to their partners and society. They may also keep on spreading the infection.
There is a lot to be done helping people to overcome this negative attitude of the society and in creating a supportive environment for the people living with HIV and AIDS to improve the quality of life and reduce spread of HIV infection.

Treating people with HIV and AIDS with compassion and not discrimination is the solution. A common strategy to decrease this stigma and discrimination is provision of counselling services which you will be read in detail in block 4.

**Activity 4**

Case study

Two students of a school were sent back to their house and their name was struck off the school records suddenly by the school authorities. When the relatives of the students wanted to know the reasons for such action by school authorities, no logical answer was forthcoming from them.

On investigation it was found that the parents of two students had died of AIDS some time back. School authorities fearing that these children would spread the infection to their mates and school will get a bad name that the children of parents who died of AIDS have been studying in their school thought it appropriate to strike off their names.

Think of the reasons for such an action by school authorities.

- How do you justify the action of school authorities?
- What would be the reactions of the small children for such an action towards them?
- What should be reaction of the community in which this family was living?
- What all steps need to be taken to prevent recurrence of such event in future?

**Check Your Progress 3**

a) List down various myths prevalent in society regarding transmission of HIV and AIDS.

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b) What are the causes of stigma and discrimination against people living with HIV and AIDS and its effects?

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Although people avoid getting tested but it is very important for those with high
risk behaviour to get tested as it will help to prevent them from further complications.

The only way to know for sure if one has this HIV infection is by getting a blood
test done called HIV antibody test. Some people call it HIV test or AIDS test.
As mentioned before when people are infected with the HIV virus their bodies
combat the infection by activating their white cells and producing antibodies. The
presence of these antibodies in the blood is what indicates that a person is
carrying HIV (HIV- positive).

1.5.1 Testing Facilities and Process of Testing with Window Period

One who has the history of indulging in high risk behaviour, has received untested
or frequent blood transfusions, received injections from unskilled sources or shared
needles and syringes and also all pregnant mothers to save their unborn children,
must get themselves tested at nearby integrated counselling and testing centres
(ICTC). More than 5000 such ICTCs have been established at all government
hospitals and peripheral health centres and dispensaries.

In these centres HIV testing is totally voluntary, confidential and is done free of
cost after counselling. Blood tests are rapid tests and are based on ELISA
technology. Usually test report is available within 24 hours.

Window Period – In most cases it takes about 6-12 weeks time, from the date
of getting HIV virus inside ones body through any route of transmission, for the
detection of antibodies (HIV test Positive) in the blood by the commonly used
blood tests. This period is called window period. Importance of knowing this
period is that during this time one can transmit infection to their partners while
ones test report may indicate status as negative.

So on the day or within two to three days of sexual contact a person may not
show HIV Positive result.

1.5.2 Importance of Testing

The reason one should get tested is that one will come to know its status and can
take important informed decisions regarding the well being of self and his family
members in all aspects like financial, social and psychological matters.

One can access both treatment and preventive facilities to save themselves and
their partners from this infection.

One can access all the care and support facilities extended for both infected and
affected members of the family. One can register as voluntary donor of blood if
the status is negative.

1.5.3 Counselling for HIV Infection & its Importance

You will wonder why counselling of an adolescent for this infection and not for
any other infection like malaria, tuberculosis etc. as a lot many people die of these
diseases as well. Then why counselling is emphasised for people who contract
HIV infection. Let us understand the meaning of counselling.
i) **Meaning of counselling**

What is Counselling – it is the provision of support and strength to individuals, couples, families or groups by competent persons to help one cope with knowledge that they are infected or affected by HIV. It is an ongoing process that allows the individual to develop a sense of responsibility in meeting challenges posed by their infection.

ii) **Importance of counselling for HIV/AIDS**

1. This is one infection where no symptoms are felt by a person for as long as 6-8 years but during this period one keeps on spreading the infection to other through sexual relation.

2. Stigma associated with the infection and associated sexual behaviour is so severe in the society, that it invoke intense reactions from the persons themselves, his/her family members, work places, employers and society leading to loss of quite a few productive years of life whether infected or not.

Both these reasons have mandated that the people need to be counselled on one to one basis for change in behaviour and use of condom rather than emphasizing on testing only.

Counselling is also given to HIV negative persons to promote behaviour change and condom use so that they remain HIV negative.

In this whole process the persons are provided privacy, confidentiality and the psychological and emotional support to tide over the impending crisis reactions from the self, family or community.

1.5.4 **Sign and Symptoms of AIDS**

- Fever for more than one month’s duration
- Weight loss of more than 10%
- Diarhorea of more than one month’s duration
- Ulcerations on mouth white patches, herpes zoster in many different areas
- Enlargement of glands which are in most of places other than in groins only
- Chronic cough of more than 2 weeks duration
- Recurrent pneumonias etc.

Along with these symptoms person should have at least two test positive for HIV infection.

1.5.5 **Treatment Facilities (Issues)**

HIV disease/AIDS is a long duration disease requiring lifelong treatment. You will ask, is this disease curable? As per the information available today, the disease is not curable but drugs are now available for treatment. The key aim of the treatment for the people suffering from AIDS is to prolong and improve their quality of life.

This is achieved by maintaining and enhancing their immunity by giving them anti retro viral drugs which kill and/or maximally suppress the multiplication of virus
inside the body, and thus allowing the immune system to re-establish itself in the body.

These free of cost treatment facilities (ART Clinics) have been expanded to provide access and services to all People living with HIV and AIDS. The patients have to take these drugs throughout their lives. These drugs may have some side effects which can be managed by substituting with the other retro viral drugs. However, a very important principle is that these drugs shall always be taken under the supervision of doctor and always in combination of three drugs together and never ever single drug administration is advocated.

**Vaccine** – Another medical weapon for prevention of infections is a vaccine. But the vaccine against HIV is still eluding the researchers’ world over in spite of being given top priority in financial support and implementation.

**1.5.6 Care and Support Services**

In this unit you have been reading about infected and affected person’s. Before we go into this discussion it’s important to differentiate between infected and affected persons. Infected people have got this infection inside their bodies while affected are non-infected but still face many consequences of the infection being present in one of the family members. Care and support facilities are required for both infected and affected people.

**Nutritional care** is another important intervention in the care and support of people living with HIV and AIDS (PLWHA).

Most of the times they are severely wasted if this intervention is not provided in the beginning itself. Good nutrition is very important for people with HIV. When a person is HIV-positive, s/he will need to increase the amount of food s/he eats and maintain the body weight. Ensure that s/he eats a balanced diet, including plenty of protein and whole grain foods, with some sugar and fat. An exercise program will help build and maintain muscle. Advise him/her to drink plenty of liquids to help body deal with any medications person is taking.

If a person feels need to use nutritional supplements, should do that after getting some expert advice from health care provider.

Following steps are essential in the nutritional support and care of HIV/AIDS persons:

1. All those who testes positive should have a good clinical examination to identify a cause of the wasting. They may be suffering from an opportunistic infection like tuberculosis leading to this wasting.

2. Where a dietician is available, make a plan to ensure that they receive their daily food based on the established requirements. Irrespective of the relatives knowing or not knowing their HIV status, they should be involved in this planning.

A diet rich in protein, vitamins, minerals, and carbohydrates should be adequate to meet most of the demands. You may refer Unit 2 of Course 2 Block 1.

3. Depression may be another cause for patient’s unwillingness to eat, and should be dealt in counselling process mentioned above. The counselling in the HIV illness is an ongoing process.
4. People living with HIV and AIDS should be advised to refrain from smoking and drinking as both can be harmful to their health.

**Services are also being expanded to provide care and support facilities to the orphans of the people who die of HIV and AIDS related illnesses.**

<table>
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<tr>
<th>Activity 5</th>
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<tbody>
<tr>
<td>The problem of HIV and AIDS leads to loss of families, societies and nations and not only to the individuals suffering from HIV and AIDS. Discuss with your friends and list down the reasons for same.</td>
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<th>Check Your Progress 4</th>
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<tbody>
<tr>
<td>a) How can one identify a person with HIV?</td>
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<tr>
<td>b) What happens to a person with HIV?</td>
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<td>c) What are the symptoms of AIDS and on what basis treatment is started?</td>
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### 1.6 ROLE OF TEACHERS

Teachers have an important role to play in creating awareness about these infections in the adolescents who are vulnerable.

They can help in creating an environment in the society that is empathetic and does not discriminate and stigmatise the people living with HIV and AIDS. This can be done by giving right information and dispelling the myths and misconceptions prevalent in the society.

They can sensitise adolescents towards the needs of abstinence till marriage, being faithful to their partners and using barrier methods if it’s not possible to choose earlier two options.

The need for responsible behaviour while dealing with self or others can be the main message during the teaching of subjects like this which have societal and national implications.
Teaching and developing life skills in the adolescents and in particular in females will go a long way in preventing the spread of this infection. You may refer Course 2 Block 4 Unit 1 of Life Skills.

1.7 LET US SUM UP

In this unit you have learnt that HIV and AIDS are real danger to this world as number of people suffering from them is increasing. The key to avoid infection is never allowing anyone's body fluid to enter in your body. AIDS is a chronic illness for which now treatment is available, though this treatment does not cure a person completely. STIs are common in general population and they increase the vulnerability of adolescents to HIV and AIDS. The common modes of transmission of HIV infection and the myths prevalent in the society are discussed. Adolescents, and in particular females are vulnerable to these infection, because of many biological and social reasons. Stigma and discrimination prevalent in society is one of the reasons for making control of this scourge difficult for the service providers. Testing and counselling is also discussed in this unit. Teachers can play a major role by making adolescents aware about these illnesses and helping them to practice healthy and safe behaviour.

1.8 KEY WORDS

<table>
<thead>
<tr>
<th>RTI and STIs</th>
<th>Reproductive tract infection and sexually transmitted infections</th>
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<tbody>
<tr>
<td>HIV and AIDS</td>
<td>Human immune deficiency virus and acquired immune deficiency syndrome</td>
</tr>
<tr>
<td>Elisa test</td>
<td>Enzyme linked immune sorbent assay-a type of technique used for the HIV testing.</td>
</tr>
<tr>
<td>Abstinence</td>
<td>Period for not developing intimate relationship before marriage or the time when persons are not able to bear social, psychological, financial and economic responsibilities of themselves and their sexual partners</td>
</tr>
<tr>
<td>Condom</td>
<td>A barrier method of contraception to save oneself or partner from HIV infection, STIs and pregnancy.</td>
</tr>
<tr>
<td>Anti Retro Viral Drugs</td>
<td>Drugs given to people who have developed AIDS to prolong and improve their quality of life.</td>
</tr>
<tr>
<td>People living with HIV and AIDS (PLWHA)</td>
<td>People in the world who are either infected with HIV infection or have already progressed to losing their immunity and have developed AIDS.</td>
</tr>
</tbody>
</table>
Check Your Progress 1

a) **Sexually Transmitted Diseases (STIs)**: Diseases which are transmitted during intimate contact (unprotected sexual intercourse) (vaginal, oral and anal) are called sexually transmitted diseases (please refer to first course if you are unaware of these terms). Commonly these diseases infect and damage sexual tract if not diagnosed & treated at right time and can also spread to other parts of body.

**Reproductive Tract Diseases (RTI)**: Reproductive organs include testicles and seminal vesicles along with sexual organs like penis in males; uterus, ovaries, cervix and sexual tract including vagina, that is a part of passage for giving birth to child, in females. These reproductive organs can get infected due to various reasons like poor hygiene of these parts especially during menstruation in females and also due to infections which spread through blood and can infect many other parts of body.

b) **Common sexually transmitted infections**

<table>
<thead>
<tr>
<th>Bacterial</th>
<th>Viral</th>
<th>Protozoal/fungal</th>
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<tbody>
<tr>
<td>Gonorrhoea</td>
<td>Genital Herpes</td>
<td>Chlamydia</td>
</tr>
<tr>
<td>Syphilis</td>
<td>Hepatitis B</td>
<td>Candida</td>
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<tr>
<td>Non specific, mixed infections</td>
<td>HIV</td>
<td>Trichomonas</td>
</tr>
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</table>

**Signs and symptoms of common STIs**
- Discharge which is foul smelling and itchy coming from the genital tract.
- Ulceration on the genital organs
- Pain during urination
- Swelling in groin, or testicular swelling
- Pain in lower abdomen or lower back particularly in females.

Check Your Progress 2

a) **HIV (Human immunodeficiency virus)** is the name of the causative virus that can infect only humans through various mode of transmission. **AIDS (Acquired Immuno-deficiency Syndrome)** indicates a spectrum of cluster of symptoms and signs which occur due to declining resistance power of human body caused by the HIV infection (entry, multiplication in human body with damage to the human immune system) by HIV.

b) By the direct contact with the blood of that person (transfusion of infected blood, use of infected equipments e.g., needles/instruments/syringes, transplantation of organs) or
Reproductive & Sexual Health Issues

- By sharing of sexual secretions e.g., semen, vaginal/seminal secretions (unprotected penetrative sexual intercourse-vaginal, anal) or
- By an infected mother to her unborn baby during pregnancy, or childbirth or during breastfeeding.

c) Most young people in the world do not know how to protect themselves from HIV, nor do they know how it is transmitted. Adolescents are poorly informed about how to protect them sexually, and are particularly vulnerable to unwanted pregnancies, and STDs including HIV. Recent studies conducted in various parts of India show that sexual relations among unmarried young adolescents is on rise, especially in urban areas where an estimated 20-25% of unmarried young males and 6-10% of young females have experienced premarital sex.

- Knowledge and values cannot ensure responsible behaviour on the part of adolescents. They cannot recognise people and their intentions. Many adolescents are victims of exploitative sex and drug abuse. It’s the lack of life skills.

- Another reason for their vulnerability is either complete lack of counselling and treatment facilities in some of the regions or lack of adolescent friendly services. This issue will also be covered in the following sections.

- The male and female ratio is changing very dramatically and a feminization of epidemic is happening as 39% of all HIV positive persons are females. Reasons for this change in the profile of epidemic is due to many reasons while some of them are listed below.

  - **Biological**: Immature Local immune system: Young girls have had less lifetime exposure to STIs than older individuals and, consequently, fewer mucosal defenses. Protective hormonally driven mechanisms have not yet had time to develop fully. **Vaginal factors**: Further, the thin lining and the relatively low level of acidity in the vagina render it more susceptible to infection. This thin lining is also more likely to be injured or damaged during the sexual act.

  - **Social**: Inability to say no to sex whether in wed lock or out of wedlock due to gender issues, lack of life skills and poor place in negotiations as they are economically dependent on the partner.


d) Learn and teach the facts about growing up and HIV and AIDS to Young people.

- They should postpone casual sex till they are ready to take responsibilities of the partners and the consequences of actions mentioned in the section on teenage pregnancy. Many other activities like hugging, cuddling, kissing or fantasizing also feel good and are safe.

- Being faithful to one’s partner and practice correct and consistent condom use are other alternatives.

- Promoting responsible behaviour towards self and others and developing skills to not let friends pressurize you into unsafe activities by learning and using life skills.
• Avoid using drugs by any route e.g., alcohol, deep breathing or by needles, syringes as they may cloud one’s judgement and lead to unsafe sexual practices. If one is using needles, syringes or other instruments that pierce the skin like tattooing make sure they are sterile or new.

• There is a need to support HIV infected women and provide them access to safe delivery services and treatment that will prevent mother to child transmission. Administration of a single dose of a drug to HIV positive mother before delivery and to her baby soon after delivery, with all other precautions before, during and after delivery and during breast feeding would save the newborn from this deadly infection. These services are now available in all district hospitals.

• All blood which is to be transfused needs to undergo stringent testing to detect HIV positively and then discarded to save recipient from getting this infection. One should insist that hospital/nursing home using blood or blood products should have these essentials that have undergone testing and use them only when they are critically required. Every bag or bottle should have this information labelled on the bottle.

• Donate blood – one cannot get HIV infection by donating blood. All equipments used in blood donation process are sterile and used only once.

• Motivate more people for voluntary donation. Voluntary blood donation will reduce professional blood donors donating infected blood.

• Should one or ones relative requires blood transfusion, make it sure from treating physician that it’s really necessary to transfuse and then seek blood from relatives or friends. They are safer than buying blood from professional donors.

Check Your Progress 3

a) Various myths prevalent in the society are that the infection can be transmitted by living together, sharing food articles, coughing, sneezing sharing utensils or clothes, hugging, shaking hands and mosquito bites.

b) This discrimination of people living with HIV and AIDS is related more too unacceptable sexual character in the eyes of the society rather than to their HIV positive status. In health settings this discrimination is related to its incurability and fear of contracting the diseases while performing even non invasive nature of procedures on people living with HIV and AIDS. Due to this collective discrimination of society there is feeling of self denial and stigmatisation in people living with HIV AIDS pushing them into a state of hopelessness, self isolation, and depression and even in some cases suicidal ideation. To save themselves from this agony of stigma and discrimination, most of them take up a path of fight or flight response by going underground rather than getting them tested and disclosing their status to their partners and society. They may also keep on spreading the infection.

Check Your Progress 4

a) No, in the early stage people with HIV infections look and feel well. They may not even know that they carry HIV in their bodies. But they are
capable of spreading the infection to others even in window period through any of the modes of transmission mentioned earlier.

b) If a person has HIV in the body s/he is called as HIV positive person. This does not automatically mean that s/he has AIDS that point of time. However, most HIV positive person will develop AIDS and eventually die.

c) • Fever for more than one month’s duration
• Weight loss of more than 10%
• Diahorrea of more than one month’s duration
• Ulcerations on mouth white patches, herpes zoster in many different areas
• Enlargement of glands in places other than groins
• Chronic cough of more than 2 weeks duration
• Recurrent pneumonias etc.

Along with these symptoms person should have at least two test positive for HIV infection done with two different principles or antigens. Treatment is started based on the criteria decided on the symptoms (clinical staging) and the Immune status of HIV infected persons (CD4 Count).

1.10 REFERENCE BOOK

AIDS in Asia-challenges ahead by Jai p Narayan.