SECTION III: PREVENTION OF HIV AND AIDS
MODULE 7: HIV AND AIDS PREVALENCE

Introduction:

Unknown before 1981, HIV and AIDS have become one of the dominant public health concerns today. Since there is no cure, neither any vaccine to prevent its spread till now, education is the only means of preventing HIV and AIDS. Its seriousness is reflected in the number of people being affected in a very short period of time. In India also the spread of HIV infection is an important health concern, especially the phenomenon of the increasing number of HIV infected adolescents and young people. In this module, we will discuss the prevalence of HIV and AIDS in India and build an understanding of increased vulnerability of young people and women to the HIV infection.

Overall Learning Objectives:

At the end of this module, participants will be able to:

- Enhance their awareness regarding HIV prevalence in India and in the world, appreciate that this infection has global outreach and that it needs consistent efforts on parts of all individuals and national governments to prevent new infections;
- Recognize the reasons for increased vulnerability of adolescents and women to HIV infection.

Activity 1: HIV and AIDS Prevalence in India

Learning Objectives:

To enable participants to:

- Review the prevalence of HIV infection in different states and various age groups in India
- Appreciate the implications of the data on HIV prevalence in different states and age groups of the country

Time required: 30 Minutes

Material required: Fact Sheet/Power Point Presentation, Copies of HIV & AIDS prevalence data, Writing Board/Rolling Chart, Chalk/Marker

Notes for the facilitator:

- Present the data given in Tables 1 and 2 (showing state-wise and age-wise variation) using a power point presentation and ask them to focus on the prevalence of HIV
- Ask the learners the following questions:
  - Which of the States (data provided in the Table 1 below) has the highest percentage of HIV infected persons? What do you think are the reasons for higher prevalence of HIV infection in this Indian state in comparison to others?
Please remember to provide feedback at the end of this module

- Which state shows the lowest percentage of HIV positive persons? Do you think this particular state is protected from HIV infection? Please provide reasons for your answers.
- Which age categories have the highest percentage of HIV infected persons? Does it arouse any concerns in you?
- Do you think that the prevalence of HIV in the age categories 15-19 years and 20-24 years is a matter of concern? Please give reasons for your answer.

- Note down the responses of the learners on the writing board/rolling chart
- Make sure to focus on the surveillance mechanisms while answering question 2
- Enable learners to realize that poor reporting may also be due to stigma and discrimination related to HIV positive status
- While summarizing assimilate the responses of learners and supplement those points covering the gaps, based on the Fact Sheets/Summing Up.
- Emphasize that even if the HIV prevalence in a state is low; it does not imply that the state is protected from HIV infection. There may be pockets of high prevalence within a state. Consistent prevention efforts are needed to keep prevalence rates low. Furthermore, a state with high prevalence of HIV can also check new infections by using effective prevention mechanisms.
- The facilitator should also inform the learners that sometimes a low prevalence rate may be due to low reporting of HIV infections as people do not come forth for testing due to stigma and discrimination associated with HIV positive status. Furthermore, surveillance efforts may not be equally efficient everywhere.

Table - 1: HIV Prevalence, by State

<table>
<thead>
<tr>
<th>State</th>
<th>Women Percentage HIV positive</th>
<th>Men Percentage HIV positive</th>
<th>Women and Men Percentage HIV positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>0.75</td>
<td>1.22</td>
<td>0.97</td>
</tr>
<tr>
<td>Karnataka</td>
<td>0.54</td>
<td>0.85</td>
<td>0.69</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>0.48</td>
<td>0.77</td>
<td>0.62</td>
</tr>
<tr>
<td>Manipur</td>
<td>0.76</td>
<td>1.59</td>
<td>1.13</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>0.39</td>
<td>0.27</td>
<td>0.34</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>0.05</td>
<td>0.10</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Source: NFHS-3, 2005-06
Table - 2: HIV Prevalence, Age-wise

<table>
<thead>
<tr>
<th>Age group</th>
<th>HIV prevalence (%)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>0.01</td>
<td>0.07</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>0.19</td>
<td>0.17</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>0.43</td>
<td>0.28</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td>0.64</td>
<td>0.45</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>35-39</td>
<td>0.53</td>
<td>0.23</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>40-44</td>
<td>0.41</td>
<td>0.19</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>45-49</td>
<td>0.48</td>
<td>0.17</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Total age 15-49</td>
<td>0.36</td>
<td>0.22</td>
<td>0.28</td>
<td></td>
</tr>
</tbody>
</table>

**Source: NFHS-3, 2005-06**

*NOTE: National Family Health Survey (NFHS)-3 is the first nationwide community-based survey in India to provide an estimate of HIV prevalence in the general population*

**Summing Up:**

- Data demonstrates the prevalence of HIV and AIDS in States.
- There can be gaps in data and data can be interpreted in various ways.
- HIV estimates are derived on the basis of HIV prevalence observed at designated sentinel surveillance sites, primary clinics and hospitals.
- No state is completely protected from HIV infection even if the prevalence is low. Consistent prevention efforts are needed to keep prevalence rates low. Furthermore, a state with high prevalence of HIV can also check new infections by using effective prevention mechanisms.

**Activity 2: Vulnerability of adolescents to HIV**

**Learning Objectives:**

- To appreciate the negative effect of HIV on adolescents.
- To understand why adolescents are at higher risk of HIV infection.
- To recommend ways of reducing the impact of HIV infection on adolescents.
Time Required: 30 Minutes

Material required: Fact Sheet, Copies of the Handout of Case Study, Writing Board/Rolling Chart, Chalk/Marker

Notes for the facilitator:

- Inform the learners that in this session, vulnerability of adolescents to HIV infection will be discussed.
- Divide learners into groups having not more than 5-6 members in each group.
- Give one copy of the handout of case study to every group. If copies of the handout are not available, read out the case study or write it on the board.
- There are three questions stated below. Assign one question to one group and ask the group to discuss and prepare the answer in 10 minutes
- The group can identify one person as a rapporteur who will note down the answer
- After the group work for 10 minutes, ask the rapporteurs of each group to present the answer. Other members may supplement, if something is missing
- Note down all the main points of the responses on the writing board and highlight the key points based on fact sheets after the group presentations are over

Case Study

Fourteen year old Ravi has a difficult relationship with his parents. He is particularly scared of his father. In order to avoid the tense atmosphere at home, he tends to stay out of the house as long as possible even though he knows that this angers his father even more. No one knows what he does for 3-4 hours every evening after school. His mother is worried but too scared to bring it up because she knows that her husband will over-react and things will go from bad to worse at home.

If things continue like this, it can lead to very extreme consequences for Ravi and his family. It is possible that he gets into the company of older boys/men or those who engage in risky behaviour. It is possible that Ravi is used by people for any number of illegal activities.

Luckily however, Ravi has three close friends who often invite him over to their homes where he watches TV, does his homework and has fun with them on most evenings.

Divide the participants into 4 groups and have each group discuss one of the following situations/questions. All participants should discuss their responses in the context of HIV specifically:

1. How could Ravi’s strained relationship with his father harm him (especially in the context of HIV)?
2. What is the role of Ravi’s peer group in influencing his decisions and future?
3. What if Ravi’s friends were not as responsible they were? How could that increase his vulnerability to HIV?
4. What role can school and teachers play in decreasing the vulnerability of young people to HIV? In your opinion, is the role of schools more important for young people like Ravi who may not have a very supportive family situation? Please provide reasons for your answers.

Summing Up:

- Adolescents need the support of their family and friends to enable them to adopt safe and responsible behaviors to prevent HIV infection
- Family members, particularly parents should create a supportive environment so that adolescents can share their concerns with them
- As peers have an important influence on the behavior of adolescents; parents and teachers should be aware of the friends that adolescents interact with
- Empowered with complete, accurate and age appropriate information and skills; adolescents can adopt safe and responsible behaviors and decrease the risk of HIV infection
- Adolescents have a right to information and services to prevent new infections
- Schools can play an important role in HIV prevention

Activity 3: Vulnerability of Women

Learning Objectives:

- To understand the different factors that contributes towards increased vulnerability of women to HIV infection.
- To analyze how this vulnerability can be reduced

Time required: 30 minutes

Material required: Fact Sheet, Copies of the Newspaper clippings, Writing Board/Rolling Chart, Chalk/Marker

Notes for the facilitator:

- Divide the learners into groups having not more than 5-6 in each group and identify one learner as reporter in each group
- Since there are only two news clippings given below as sample, try to collect some more news clippings on similar issues. Such news items appear in the Newspaper quite frequently
- Give one news clipping to every group. If the number of News clippings is less than the number of groups, give the same news clipping to more than one group
• Ask all groups to discuss the questions given below. These questions may be written on the board
• Facilitator will use the following questions for discussion:
  o What do you think are the common reasons for women to be at higher risk of HIV infection?
  o Do you think society discriminates against women making them more vulnerable to the infection? Give reasons.
  o What can be done to check the growth of HIV infection among women? Give suggestions.
• After the group work is over, ask the group reporters to present the group reports. The group members may supplement, if some points are missed out by the group reporter.
• Summarize the entire discussions held in this session and highlight the following points with the help of Fact Sheet.

News Clipping I

Women more susceptible to HIV, says study
(From Indian Express.com, Anuradha Mascarenhas. Posted online: Tue, Jan 22, 2008, 000:10 hrs)

Pune: January 21: Recent studies show that women are susceptible to HIV and other sexually transmitted diseases in multiple ways. They are more likely to have been coerced into early sexual activity, face more sexual violence …., cautions Pratima Murthy, Professor of Psychiatry and Chief, of Drug De-Addiction Center at National Institute of Mental Health and Neurosciences, Bangalore.

Women using drugs often have partners who use drugs and their risky behavior affects the women, Murthy adds, similarly non-substance using women who have substance using partners are also vulnerable and form a bridge population for the spread of HIV/AIDS. Awareness on HIV risk is inadequate, accessibility to service is limited and this population is greatly underserved.

Can also be accessed from:

News Clipping II

When it comes to HIV, all women are at risk

The Expression ‘women at risk’ can no longer be used to describe only those engaged in sex work, and that strategies to address women’s vulnerability to HIV must therefore take into account their varied risks, writes Sumita Thapar in a newsletter “India Together”.

“When I think women and AIDS, the faces of women I have met in different parts of the country over the years flash before my mind: A 50-year-old woman who has spent a lifetime in a brothel in Kolkata: a 40-something women in Chennai who has the most heart rending tales to tell of the abuse, humiliation and sexual exploitation in the Tamil cine industry; .. a 40-ish middle-class
AIDS widow in Mumbai, HIV-positive and on antiretroviral treatment, playing single parent to two young children and working as a health worker”.

These stories – and the breadth of social and economic conditions they represent – point to unspeakable sexual violence in the home and in workplace, increasing women’s vulnerability, and the risk of contracting HIV, the virus that causes AIDS. This also means that the expression ‘women at risk’ can no longer be used to describe only those engaged in sex work, and that strategies to address women’s vulnerability to HIV must therefore take into account their varied risks.

This article can also be accessed from:

Summing Up:

- Women are at higher risk of HIV infection, although current statistics may not indicate the same. This is more due to women’s inaccessibility to health services as well as to testing services.
- Knowledge of HIV transmission, prevention, treatment and care is important to reduce risk of transmission and spread of the infection, and decrease the stigma and discrimination associated with HIV/AIDS, which becomes double discrimination, in the case of women.
- Women in our country and reportedly worldwide, are known not to actively seek health services for themselves. This is due to a variety of reasons, such as low priority to one’s own health, being too busy with household chores to take time off for health needs. Furthermore, the society does not place a high value on women’s health and well-being. As a result, family resources are not distributed in their favor. This leads to further neglect of women’s health that put them at a higher risk of several diseases and infections, including HIV.
- Biologically also, women are more vulnerable to acquire HIV infection.
- It should not be assumed that HIV is transmitted only in certain ‘high risk groups’ (such as sex workers or intravenous drug users). Women from diverse socio-economic backgrounds are being detected with the infection, which further emphasizes the point, that it’s not the groups that are “risky” but rather the behaviors that people adopt that would put them at risk of infection.
FACT-SHEET

What is HIV?
HIV stands for:

H : Human (This virus survives only in human body)
I : Immunodeficiency (Virus produces weakness or inadequacy of the body’s main defense mechanism, the immune system)
V : Virus

Human Immunodeficiency Virus (HIV):

HIV is a virus that causes AIDS. HIV belongs to a family of viruses called retroviruses. It is tiny, a thousand times smaller than the thickness of a hair. Viruses cause many diseases in humans and other animals and even in plants. There are numerous types of viruses which cause many diseases. Human diseases caused by viruses include measles, polio, mumps, common cold and flu. Viruses cannot multiply on their own. They can only reproduce themselves by using the genetic materials of the cells of the host animal or plant. The HIV (Human Immunodeficiency Virus) is different from other viruses, because it attaches itself to the genetic material of the human cells it has infected. This makes it very hard for either the body or drugs to deal with it, without destroying the cell itself. Which is why it has been difficult to develop a cure for HIV so far, since anything which damages the virus is also likely to destroy the cell it has infected.

The destruction of the immune system by the virus means that infectious organisms can invade the body unchallenged and multiply to cause disease. Some of the organism which normally do not cause diseases and leave in dormant stage in the body, owing to the weakening of immune system may multiply to cause diseases. This condition is known as opportunistic infection.

What is AIDS?
AIDS stands for:-

Acquired : Not genetically inherited but one gets it from an infected person
Immune Deficiency : Weakness or inadequacy of the body's main defense mechanism, the immune system.
Syndrome : Not just one disease or symptom but being present in the body as a group of diseases or symptoms.

- AIDS is a condition caused by a virus. A closer look at the term itself tells us a lot about what AIDS is. AIDS arises from damage to the immune system acquired as a result of infection with HIV (Human Immunodeficiency Virus). There are many conditions which can result in someone being diagnosed as having AIDS but what links them all is a deficiency or weakness of the immune system. The word syndrome is used to emphasize that the AIDS presents itself as a group of signs and symptoms and not as a single disease.
- AIDS cannot be diagnosed based on the existence of one sign or symptom. All the symptoms of AIDS can be symptoms of other diseases too. Therefore, a person cannot know whether he/she has AIDS or not unless he/she has been examined at a hospital or health centre and diagnosed by blood test.
HIV Prevalence:

i) Global
Within a span of nearly two and a half decades the spread of HIV and AIDS has assumed the proportion of a global crisis. According to the latest statistics on the world pandemic of HIV, published by UNAIDS/WHO in December 2008, an estimated 33.4 million people worldwide were living with HIV in 2008. Out of this number 31.3 million are adults (aged 15-49 years), 15.7 million are women and 2.1 million are children under 15 years of age.

During 2008 alone the newly infected cases were around three million (2.7 million), approximately 30% lower than at the epidemic’s peak 12 years earlier. Globally, Sub-Saharan Africa accounts for 71% of all the new cases.

The total number of people living with the virus in 2008 was more than 20% higher than the number in 2000 (due to a tenfold increase in the use of anti-retroviral therapy, from 7% in 2003 to 42 % in 2008), and the prevalence was roughly threefold higher than in 1990. This reflects a continued improvement in Global and National Surveillance systems and estimation methodology.

The total number of deaths due to AIDS related illnesses in 2008 was 2 million. AIDS has become a major health priority. Although AIDS is no longer a new syndrome, global solidarity in the AIDS response will remain a necessity. Due to geographical variations, the preventive strategies needs to be tailored to the local needs, also important is the decentralization of AIDS responses.

ii) India
In India also the number of people with HIV infection is multiplying very fast since the first confirmed evidence of HIV infection was detected in Chennai in 1986.

According to the latest estimates of National AIDS Control Organisation (NACO), Ministry of Health and Family Welfare, Government of India, 2.27 million people were living with HIV by the end of 2008 (Provisional Estimates, NACO). In absolute numbers, India has the second largest number of people living with HIV and AIDS, next to South Africa. However, it is pertinent to note that the statistics of AIDS cases in India may not be a completely accurate guide to the severity of the epidemic, as in many situations a patient dies without HIV diagnosis, and the cause of death is attributed to an opportunistic infection, such as tuberculosis, pneumonia or diarrhoea. Although majority of HIV infections in India occur through heterosexual transmission, in the state of Manipur, injecting drug use is the more common route of HIV transmission.
Vulnerability of Adolescents:

Adolescents are more vulnerable to HIV infection because of the following reasons:

- Lack of correct knowledge about transmission of HIV and the needed life skills to make informed and responsible decisions makes them more vulnerable.
- Adolescents have an urge to experiment/try out new things which may sometimes lead to risky behaviors. They may also have the feeling that they are invincible are willing to take risks.
- Adolescents are less likely to recognize potentially risky situations.
- Lack of access to youth friendly services.
- Negative peer pressure and increased possibility of sexual abuse by infected person.

Vulnerability of Females:

The possibility of females contracting HIV is due to the following facts:

- Male to female transmission is more efficient than female to male because of biological reasons (larger surface area of mucus membrane that is exposed to the virus thereby making it easier for transmission of the virus)
- Semen has greater concentration of virus than vaginal fluid.
- Mucus membrane can be damaged easily and therefore there are more chances of HIV transmission.
- Asymptomatic infections are more common in females and as a result they do not come forward to seek care.
Please remember to provide feedback at the end of this module

- Less autonomy and power for women in relationships.
- Social and economic factors (lack of education, low self-esteem and economic dependence) also makes women more vulnerable

Want to provide your online feedback on this module now? Make sure your computer is connected to the internet, and then click the link below with the Ctrl key on your keyboard pressed:  
http://www.surveymonkey.com/s/aep7

If the online feedback page does not open on your internet browser, please type the above-mentioned link manually in your browser, or simply copy-paste the link.