

# 10

## HIV/AIDS AND SAFE MOTHERHOOD

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# SESSION 10

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### Aims

- To provide students with an opportunity to understand HIV infection and AIDS, relevant to pregnancy and childbirth and to appreciate the role and responsibility of midwives in caring for mothers, babies and families affected by HIV/AIDS.

### Objectives

On completion of Session 10, students will be able to:

- Explain the major sources of HIV infection.
- Describe the social and cultural factors that put women at risk of HIV infection.
- Explain the three-pronged approach to preventing mother-to-child transmission (MTCT) of HIV.
- Explain the risks of breastfeeding and replacement feeding and recommendations for practice.
- Describe how HIV can be transmitted in the workplace and how to create a safe work environment.

### Plan

Modified lecture (1½ hours).

Group work, feedback and discussion (1½ hours).

### Resources

Instructions for Group Work.

*Fact sheets on HIV/AIDS for nurses and midwives.* Geneva, World Health Organization, 2000.

*HIV in pregnancy: a review.* Geneva, World Health Organization, 1999 (WHO/CHS/RHR/99.15, and UNAIDS/00.35E).

*Prevention of mother-to-child transmission of HIV: selection and use of nevirapine.*

Geneva, World Health Organization, 2001 (WHO/HIV-AIDS/2001.3, and WHO/RHR/01.21).

*Prevention of Mother-to-Child Transmission of HIV (PMTCT) Generic training package,* Geneva, HHS/CDC WHO, 2004.

*Sexual and Reproductive Health & HIV/AIDS, A Framework for Priority Linkages.* WHO/UNFPA/IPPF/UNAIDS 2005

*HIV-infected women and their families: Psychosocial support and related issues.* A literature review. WHO/RHR/03.07 and WHO/HIV/03.07 2003.

*Pregnancy, Childbirth and Newborn Care: A guide for essential practice.* WHO 2003.

*Scaling up antiretroviral therapy in resource-limited settings. Treatment guidelines for a public health approach 2003 revision.* WHO 2004.

*Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants. Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings.* WHO 2004.

*Antiretroviral drugs and the prevention of mother-to-child transmission of HIV infection in resource-limited settings. Recommendations for a Public Health Approach (2005 revision)* WHO.

*Antiretroviral drugs for the treatment of HIV infection in infants and children in resource-limited settings. Recommendations for a Public Health Approach (2005 revision)* WHO.

## INTRODUCTION

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*Start the session by presenting the following general information on HIV and AIDS.*

The HIV/AIDS pandemic takes an increasing toll of women and children, especially in sub-Saharan Africa. Some 39 million people are now living in HIV, of whom 2.2 million are children under 15 years of age and 18 million are women. In 2004, there were 4.9 million new cases of infection, including 640 000 children under 15. In 2004, 3.1 million people died of AIDS, 510 000 of whom were children. HIV/AIDS has thus led to significant increases in mortality in many countries: it is a leading cause of death among women and children in the most severely affected countries in sub-Saharan Africa.

Across the world, around 2.2 million women with HIV infection give birth each year. HIV infection in pregnancy increases the risk of complications of pregnancy and childbirth. Childbirth of an HIV-positive mother have a higher mortality risk than children of HIV-negative mothers. HIV infection in children, almost always acquired through mother-to-child transmission, causes high mortality rates and some 60% die before their fifth birthday.

The major concentration of HIV infection is in the developing world. Eighty-six percent of people with HIV live in sub-Saharan Africa and the developing countries of Asia. Infection rates are rising rapidly in much of Asia, eastern Europe and southern Africa. In some Latin America countries prevalence is rising rapidly, while in other parts of Latin America and many industrialized countries, infection rates are falling or are becoming stable. This is also the case in Thailand, Uganda, and in some west African countries. However, although the situation is improving among many groups, every year there are large numbers of new infections in these countries.

There is no simple explanation as to why some countries are more affected by HIV than others. However, poverty, illiteracy and risk-taking behaviours account for much of the epidemic. People who are infected with HIV often have no symptoms of the disease for many years and can infect others without realizing that they are infected themselves.

It is important that midwives and nurses understand the extent of the problem, both local and national.

*Use the following questions to reflect on and discuss the situation locally and nationally.*

*How many people in your local community are now infected with HIV?*

*What is the rate of new infections in your community?*

*What is the main mode of transmission of HIV in your country?*

*How many cases of AIDS have been reported in your country?*

*Be prepared to provide answers to these questions if students are unable to reply. If local and national statistics are not available, be prepared to talk about how information could be collected. For example, visiting hospitals (to assess the number of in-patients who are HIV infected), visiting STD services, blood transfusion services and other facilities that people use to access HIV-related care would provide important information about the situation with respect to HIV/AIDS.*

## MAJOR SOURCES OF HIV INFECTION

**There are four main sources of HIV infection:**

**Sexual transmission:** the most common form of HIV transmission is through sexual intercourse or through contact with infected blood, semen, or cervical and vaginal fluids transmitted from an infected person to his/her sexual partner, whether it be man to woman, man to man, or woman to woman, although the latter is less likely. HIV transmission through sexual contact can occur vaginally, orally, anally or rectally. Male to female transmission, usually from a single partner, is now the most common form of HIV sexual transmission.

*Ask students how sexual transmission of HIV can be prevented? Compare their answers with the following information:*

The safest way of preventing sexual transmission of HIV is abstinence. In most cases, however, this is neither realistic nor agreeable. The next most effective are barrier methods that prevent semen and other body fluids from passing from one partner to another. These include male and female condoms.

**Transfusion of blood and blood products, or transplanted tissue or organs obtained from HIV-infected donors:** There is a 90–95% chance that a person who receives blood from an HIV-infected donor will become infected with HIV themselves. Recipients of blood have an increased risk of HIV infection. However, this risk can virtually be prevented by a safe blood supply, and by using blood transfusions appropriately.

*Ask students what they see as the difficulties interfering with a safe blood supply. Write down their responses on the blackboard or a*

*flipchart. Make sure that the following points are covered:*

- lack of national blood policy and plan
- lack of an organized blood transfusion service
- lack of safe donors or the presence of unsafe donors
- lack of blood screening, and
- unnecessary or inappropriate use of blood.

In many countries, regulations on blood donations, screening and transfusion exist, but are not followed. It is extremely important that regulations be established and rigorously enforced.

Three essential elements must be in place to ensure a safe blood supply:

1. There must be a national blood transfusion service run on a non-profit basis which is answerable to the Ministry of Health.
2. Wherever possible, there should be a policy of excluding all paid or professional donors, but at the same time, encouraging voluntary (non-paid) donors to donate regularly. Suitable donors are those considered to have a low risk of infection.
3. All donated blood must be screened for HIV, as well as for hepatitis B and syphilis (and hepatitis C where possible). In addition, both donors and patients must be aware that blood should be used only when transfusions are necessary.

**Using skin piercing instruments or injecting equipment that is contaminated with HIV:** HIV can spread very rapidly among injecting drug users (IDUs), and from them to their sex partners and children. The most common means of HIV transmission among IDUs is the sharing of non-sterile injection equipment. Two strategies that have been shown to be effective are: the sale of needles and syringes at a minimum cost through pharmacies and other outlets; and needle and syringe exchange programmes.

*Ask students the following questions:*

*Is there a problem with IDUs in their community/country?*

*If so, what interventions are available for preventing HIV infection?*

**Transmission from mother-to-child during pregnancy, labour, or following birth through breastfeeding:** Mother-to-child transmission (MTCT) of HIV is the most significant source of HIV infection in children below the age of 10 years. Four out of 20 babies born to HIV-infected mothers would be infected during pregnancy and childbirth without ARV medication. Three more may be infected by breastfeeding.

*Tell students that the strategy for preventing MTCT will be discussed later in the session.*

## WOMEN, RISK FACTORS AND HIV INFECTION

The factors that place women at risk of HIV infection can be grouped as follows:

**Biological vulnerability:** Research shows that the risk of becoming infected with HIV during unprotected vaginal intercourse is as much as 2–4 times higher for women than for men. Women are also more vulnerable to other STIs. One major reason for this is that women have a larger surface area of mucosa (the thin lining of the vagina and cervix) exposed to their partner's secretions during sexual intercourse. In addition, semen infected with HIV typically contains higher concentrations of the virus than a woman's sexual secretions. Younger women are at even greater risk because their immature cervix and scant vaginal secretions provide less of a barrier to HIV, and they are prone to vaginal mucosa lacerations.

**Social and economic vulnerability:** Preventive measures such as abstinence, fidelity (faithfulness to one partner), condom use, needle exchange programmes (for intravenous drug users) and encouraging and enabling people to get prompt STI treatments have all helped avoid HIV infection. For millions of women, however, their ability to make decisions about preventive measures is limited by their socioeconomic circumstances because they lack economic resources and/or are fearful of abandonment or violence from their male partner. Many women, therefore, have little control over how and when they have sex and have little or no control over their risk of becoming infected. Even if a woman suspects her partner has HIV, she would probably be unwilling to refuse sex, or insist on condom use, if it meant losing his support.

**Lack of education:** Millions of young girls grow up with little or no knowledge of their reproductive system or how HIV and STIs are transmitted and prevented.

**Sexual customs and norms:** Women are usually expected to leave the initiative and decision-making in sex to males, as well as tolerate predatory, violent sex. In addition, there is often a double standard where women are blamed or thrown out for infidelity (real or suspected), while men are expected or allowed to have multiple partners.

**Lack of economic opportunities:** The rights of women to equal education and employment opportunities is often not respected, which reinforces the dependence of women on men. This dependence may be on a husband or stable partner, a "sugar daddy" (a partner who gives gifts in return for sex), a few steady male partners who have fathered the woman's children or, for prostitutes, on a string of clients. Dependency leads to submissive behaviour and leaves women feeling disempowered and unable to feel in control of their lives.

## GROUP WORK

*Women's vulnerability to HIV infection comes from lack of power and control over the risk factors described above. One important way of responding to this is to create opportunities to foster empowerment of women.*

*Divide students into small groups and review with them the "Instructions for Group Work", included at the end of the session. Make sure that students understand what is expected of them. Allow one hour for the groups to complete the activity and spend some time with each group to help facilitate the activity. Allow 5–10 minutes for each group to provide feedback about the outcome of the group activity.*

## Feedback and discussion

*The following are examples of opportunities for fostering the empowerment of women, that may be useful to compare with the opportunities described by students during feedback and discussion.*

***Provide women-friendly services:*** *Ensure that girls and women have access to appropriate health services, including those for HIV/STI prevention and care. The services should be available at places and times that are convenient and acceptable to women. They should be provided in a respectful manner, and ensure privacy and confidentiality at all times. In addition, voluntary counselling and testing services (VCT) should be widely available, as should condoms and information and education about their use.*

***Combat ignorance:*** *Improve education for women, including education about their bodies, STIs, HIV and AIDS, and the confidence to say no to unwanted or unsafe sex.*

***Build safer norms:*** *Provide support to women's groups and community organizations in questioning behavioural traditions such as child abuse, rape, sexual domination, and female genital mutilation. Educate boys and men to respect girls and women, and to engage in responsible sexual behaviour.*

***Reinforce women's economic independence:*** *Encourage and strengthen existing training opportunities for women, credit programmes, saving schemes, and women's cooperatives, and link these to HIV/AIDS prevention activities.*

***Reduce women's vulnerability through policy change:*** *At community and national levels (as well as internationally), respect and protect the rights and freedom of women. This could be achieved by giving women a greater voice in political activities at local, national and international levels.*

## PREVENTING MOTHER-TO-CHILD TRANSMISSION OF HIV

*Continue the session by presenting and discussing the following information.*

The rate of transmission of HIV infected pregnant women to their infants has decreased to less than 2% in industrialized countries. This has been achieved through the use of highly effective antiretroviral drug regimens for prevention of vertical transmission or maternal treatment, in combination with elective caesarean section and replacement feeding from birth. Some developing countries, such as Thailand, have also succeeded in reducing the number of children infected with HIV. Achieving similar results in other developing countries, some of which are hardest hit by the AIDS epidemic, will require addressing many challenges and solving some key problems.

A three-pronged strategy for the prevention of MTCT of HIV has been defined by WHO and its partners. The strategy is outlined in Table 1.

*Photocopy the table onto a transparency and use it to go through each of the three prongs of the strategy.*

It is also important to provide and improve care and support services for HIV-infected individuals and their families, in particular care of the HIV-infected mother; psychosocial support for the mother and her family; and planning for the long-term care and support for HIV-infected and affected children in the family.

Midwives have an important role to play in the implementation of the strategy described above, especially, with respect to the provision of information, education and counselling on HIV prevention, antenatal care, safe delivery practices, and counselling and support for safer infant feeding practices.

### **Risks of breastfeeding and replacement feeding**

Breastfeeding is associated with a significant additional risk of HIV transmission from mother-to-child as compared to non-breastfeeding. This risk depends on clinical factors and may vary according to the pattern and duration of breastfeeding. In untreated HIV-infected women who continue to breastfeed after the first year, the absolute risk of transmission is 10–20%.

The risk of MTCT of HIV through breastfeeding appears to be greatest during the first months of life, but continues for the duration of breastfeeding.

Replacement feeding carries an increased risk of morbidity and mortality associated with malnutrition and with infectious diseases other than HIV. This is especially true in the first six months of life and decreases after this. The risk and feasibility of replacement feeding are affected by the local environment and the individual woman's situation.



**Table 1: MTCT–prevention programme components and their contribution to the three-pronged strategy**

	Primary prevention of HIV among parents-to-be	Prevention of unwanted pregnancies among HIV-infected women	Prevention of HIV transmission from HIV-infected pregnant women to their infants
Information, education and counselling on HIV prevention and care including approaches to MTCT-prevention	✓	✓	✓
Condom promotion	✓	✓	✓
Voluntary counselling and testing	✓	✓	✓
Family planning services		✓	
Treatment of sexually transmitted infections	✓		
Antenatal care			✓
Treatment/prevention of transmission with antiretroviral regimens			✓
Safe delivery practices			✓
Counselling and support for safer infant feeding practices			✓
Community action to reduce stigma and discrimination and increase support for HIV prevention and care interventions	✓	✓	✓

With respect to infant feeding practices, the following applies:

When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life. To minimize the risk of HIV transmission, breastfeeding should be discontinued as soon as it is feasible, taking into consideration local circumstances, the individual woman's situation and the risk of replacement feeding (including infections other than HIV and malnutrition). More information on this subject can be obtained from other WHO documentation.\*

When HIV-infected mothers choose not to breastfeed from birth, or stop breastfeeding later, they should be given specific guidance and support for at least the first two years of the baby's life to ensure adequate replacement feeding.

## RISK OF HIV TRANSMISSION IN THE WORKPLACE

HIV can be transmitted in the workplace in the following ways.

To patients through contaminated instruments that are re-used without adequate disinfection and sterilization; transfusion of HIV-infected blood, skin grafts, organ transplants; HIV-infected donated semen; and contact with blood or other body fluids from an HIV-infected health care worker.

To health care workers through skin piercing with a needle or any other sharp instrument which has been contaminated with blood or other body fluids from an HIV-infected person; exposure of broken skin, open cuts or wounds to blood or other body fluids from an HIV-infected person; and splashes from infected body or body fluids onto the mucous membranes (mouth or eyes).

Most patient care does not involve any risk of HIV transmission; occupational exposure is rare. However, to minimize the risk of occupational transmission of HIV (as well as other infectious diseases), all health care workers should adopt appropriate infection prevention practices. These include:

- Understanding and using Universal Precautions with all patients, at all times, in all settings, regardless of patient diagnoses
- Reducing unnecessary blood transfusions, injections, suturing, and invasive procedures such as episiotomies and other surgical procedures when they are not necessary
- Making adequate supplies available to comply with basic standards of infection control, even in resource poor settings
- Adopting locally appropriate policies and guidelines for the proper use of supplies, and for the education and supervision of staff
- Assessing and reducing risks during regular supervision in health care settings.

*Use the following questions to reflect on and discuss the situation in the workplaces of students:*

- *What resources would you consider essential to ensure safety for patients and staff?*
- *How would you go about making sure these resources are available?*
- *What would you do to ensure that needle stick injuries and other accidents that might lead to HIV infection are reported?*
- *What actions would you consider to make your work environment safer?*

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\* *HIV and infant feeding: a guide for health-care managers and supervisors, and HIV and Infant feeding: guidelines for decision-makers.* Geneva, World Health Organization, 2004.

*Let students know that information on Universal Precautions and details related to infection prevention practices are included in postpartum haemorrhage, prolonged and obstructed labour, puerperal sepsis, eclampsia, and incomplete abortion modules.*

*Give a brief summary of the session and answer any remaining questions.*

## INSTRUCTIONS FOR GROUP WORK

This activity will help you empower women to overcome the factors that put them at risk of HIV infection.

How can we, as midwives, create opportunities to foster empowerment of women

### **Be creative with your ideas.**

To help you get started, review some of the risk factors presented in class, such as:

- Biological vulnerability
- Social and economic vulnerability
- Lack of education
- Sexual customs and norms
- Lack of economic opportunities.