NATIONAL AIDS PROGRAMME MANAGEMENT

MODULE 6
IMPLEMENTATION OF HIV PREVENTION, CARE AND TREATMENT STRATEGIES

SUBMODULE 5
PREVENTION OF MOTHER-TO-CHILD TRANSMISSION

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National AIDS Programme Management

A Training Course

Submodule 6.5: Prevention of mother-to-child transmission

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Copies may be requested from:
HIV Unit, Department of Communicable Diseases
World Health Organization Regional Office for South-East Asia
Indraprastha Estate, Mahatma Gandhi Marg, New Delhi 110 002, India
Fax: +91 11 23370197; e-mail: hiv@searo.who.int

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Submodule 6.5: Prevention of mother-to-child transmission

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Submodule 6.5

Prevention of mother-to-child transmission

LEARNING OBJECTIVES

After completing this submodule, participants will be able:

1. To describe the components of a comprehensive approach to the prevention of mother-to-child transmission of HIV.
2. To assess barriers to accessing services for prevention of mother-to-child transmission.
3. To plan activities to reduce mother-to-child transmission of HIV infection.

INTRODUCTION

This submodule sets out the components of a comprehensive strategy for the prevention of mother-to-child transmission (MTCT) of HIV infection, and provides an opportunity for participants to assess their country's current response in this area.

The rate of transmission of HIV from pregnant women with HIV to their infants has decreased to less than 2% in industrialized countries through the use of antiretroviral therapy (ART) for the prevention of vertical transmission (and for treating the mother) combined with elective Caesarean section and replacement feeding from birth. Some countries, such as Thailand, have also succeeded in reducing the number of children infected with HIV. A rapid decline in the number of AIDS cases among children under 5 years of age has been observed in Thailand since programmes for the prevention of mother-to-child transmission (PMTCT) of HIV were first introduced in 1997. This decline in the number of paediatric cases is also associated with a reduction in the prevalence of HIV among women attending antenatal clinics, as a result of intensive HIV prevention efforts.

Despite these isolated successes, access to PMTCT services remains unsatisfactorily low in many countries (around 2% of the women in the world who would qualify for PMTCT services are able to access it). This is either because they do not know their

HIV status, or because PMTCT interventions are not available to them. Without interventions, the risk of transmission remains high, which is indicated in the following table:

Condition	Risk of transmission
During pregnancy	5–10%
During labour and delivery	10–20%
During breastfeeding	5–20%
Overall without breastfeeding	15–30%
Overall with breastfeeding till 6 months	25–35%
Overall with breastfeeding till 18–24 months	30–45%

OBJECTIVE 1: To describe the components of a comprehensive approach to the prevention of MTCT of HIV

A comprehensive approach to the prevention of MTCT of HIV involves:

1. **Primary prevention of HIV infection** – minimizing the transmission of HIV to women.
2. **Prevention of unintended pregnancies among women with HIV** – by improving women's access to information, education, sexual and reproductive health services including family planning.
3. **Prevention of HIV transmission from mothers with HIV to their infants** – by increasing women's access to ART, providing antiretroviral treatment during labour, ensuring safer delivery procedures and reducing transmission through breastfeeding.
4. **Care, support and treatment for mothers living with HIV, their children and families** – to improve the health of the mother and the family to the extent possible.

In countries where epidemiological data supports the need for this, a routine offer of HIV counselling and testing to pregnant women who present for antenatal care is an effective strategy for increasing the access to PMTCT services and reducing HIV infection among infants and young children. These interventions to minimize HIV transmission are most effective when they are integrated into existing maternal and child health (MCH) services. This provides an opportunity to incorporate PMTCT alongside other important public health initiatives such as syphilis testing and treatment.

Given the high proportion of women who do not access antenatal care during pregnancy in many countries in the Region, links between MCH services and traditional birth attendants also need to be strengthened.

The diagram on page 8 sets out the services that can contribute to the prevention of MTCT.

Associated prevention measures

Safer delivery practices

Invasive obstetrical procedures, such as artificial rupture of membranes, fetal scalp monitoring and episiotomy may increase the risk of transmission of HIV to the infant. Their use in HIV-infected women should be limited to cases where absolutely necessary. It has been shown that an elective Caesarean section can help to reduce the risk of MTCT. This, however, may not be an appropriate intervention in resource-constrained settings, because of limited availability, cost and the risk of complications.

Comprehensive services for the prevention of MTCT: women seen during pregnancy

Package of services for antenatal care

1. Essential antenatal care services, including routine offer of HIV counselling and testing
2. Management of malaria in stable malaria areas
3. Clinical and immunological assessment of HIV-positive women
4. Screening, prevention and treatment of tuberculosis (TB)
5. Screening for and management of liver diseases
6. Screening, prevention and management of sexually transmitted infections (STIs)
7. Screening for and management of injecting drug use
8. Initiation of ART and antiretroviral (ARV) prophylaxis for PMTCT
9. Counselling and support on nutrition
10. Counselling and support on infant feeding

For all HIV-positive women in the postpartum period

1. Provide counselling and support on infant feeding
2. Provide follow-up care for mother and infant:
   - HIV-related care and ART when indicated
   - Co-trimoxazole prophylaxis for women and their infants
   - Sexual and reproductive health services
   - Counselling and support on nutrition
   - Diagnosis of HIV infection in infants
3. Adherence support for women receiving ART

Source: Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants in resource-limited setting.

Infant-feeding, counselling and support

Breastfeeding can add to the risk of HIV transmission by 5–20%. Lack of breast-feeding, however, can expose children to an increased risk of malnutrition or infectious diseases other than HIV. While avoiding breastfeeding would seem logical when the mother has HIV, striking the necessary balance of risks is in fact more complicated. All mothers with HIV should receive counselling that includes information about the risks and benefits of various infant-feeding options, and guidance in selecting the most suitable option for their situation. When replacement feeding is acceptable, feasible, affordable, sustainable and safe, breastfeeding by mothers with HIV should be avoided. Otherwise, exclusive breastfeeding is recommended during the first few months of life and should then be discontinued as soon as it is feasible.

Follow up of mothers and infants

Mothers and infants receiving treatment for PMTCT need to be able to access follow-up services. These include access to care, support and treatment for the mother, and access to viral load testing for the infant, and ongoing care, support and treatment services if diagnosed with HIV.

Take some time to look at the abve diagram, which shows details of comprehensive services for PMTCT. Think about how it relates to the services that you provide currently in your country and use it for Exercise A.

OBJECTIVE 2: To assess barriers to accessing services for prevention of mother-to-child transmission

Pregnant women attending antenatal clinics are included in HIV sentinel surveillance in many countries. The results give useful information about the extent of HIV prevalence in this group and an estimate of the risk of infants being infected with HIV.

For many years now, the cost of antiretroviral (ARV) drugs has been seen as the key hurdle to implementing interventions that can prevent HIV infection in infants and young children in resource-constrained countries. Now, with the negotiation of more advantageous pricing agreements, as well as large-scale donations of some drugs, the possibility of access by pregnant women in these countries to ARV drugs has increased enormously.

Even with the cost barrier removed, many hurdles to implementing interventions remain. The most important limiting factor may be the inability of health systems in some of the worst affected countries to deliver the necessary services. In many of these countries, the use of antenatal care is too limited at present to provide efficient and widespread interventions that prevent HIV infection in infants and young children.

Moreover, antenatal care must be used effectively. It is often restricted to one visit only (usually late in pregnancy) and may not be associated with skilled assistance by a health-care worker at the time of delivery. Furthermore, in many of the countries where the need is greatest, access to HIV counselling and testing – essential if women seeking antenatal care are to know their HIV status and make use of specific prevention and care interventions – seldom exists. To enable wide delivery of the interventions needed to prevent HIV infection in infants and young children, these issues must be addressed.

EXERCISE A

(Country group work followed by intercountry group discussion)

In country groups, estimate the following: (You may not have accurate data available. Make an estimate based on your knowledge.)

% of pregnant women who attend antenatal services	
% of **these** women who are offered HIV testing	
% of **these** women who access HIV testing in antenatal care	
% of **these** women who test HIV-positive	
% of **these** women who receive their results	
% of **these** women who receive PMTCT treatment	

Now answer the following questions:

1. What sources and methods are useful in gathering information about MTCT of HIV in your country?

2. From the available information, what activities are currently being carried out in your country to prevent MTCT of HIV? What are the gaps?

Inform the facilitator when your country group is ready for intercountry group discussions.

OBJECTIVE 3: To plan activities to reduce MTCT of HIV infection

A number of activities will be required to implement the above interventions.

- Adapt international guidelines on prevention of MTCT of HIV including counselling and testing, use of ARV drugs, and counselling on infant feeding.
- Train health workers in the use of ARV drugs for prevention of HIV infection.
- Procure and distribute ARV drugs to be used to prevent MTCT of HIV.
- Train health workers and outreach workers in infant-feeding counselling.
- Develop and implement guidelines on safer delivery practices.

Assigning roles and responsibilities and timelines is an important part of planning.

Example

Activity	Organization	Department or individual
Adapt international guidelines on the use and distribution of ARV drugs to prevent MTCT of HIV	Ministry of Health	National AIDS Programme Manager
Train health workers in the use of ARV drugs to prevent MTCT of HIV	Ministry of Health	National AIDS Programme Manager
Prepare and distribute guidelines on safer delivery practices	Ministry of Health	MCH Director

(As an example, a sample timetable of some activities to prevent MTCT of HIV is given below.)

Sample timetable: Activities to prevent MTCT of HIV, 2007

Activity	Tasks	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Procure ARV drugs to prevent MTCT of HIV	Coordinate ARV procurement with donors and suppliers	X	X										
Distribute ARV drugs for prevention of HIV	Designate 25 centres for distribution	X	X										
	Specify locations for distribution	X	X										
	Meet with responsible individuals		X	X									
	Provide stock		X	X	X	X	X	X	X	X	X	X	X
	Check with centres to determine re-stocking of ARV drugs				X		X		X		X		X
Train health-care workers in prevention of MTCT	Coordinate with MCH Director	X											
	Provide training		X	X									

EXERCISE B

(Country group work followed by intercountry group discussion)

Answer the following questions in your country group:

1. What steps can you take to expand access to PMTCT services in your country?

2. What are the limiting factors to this expansion?

3. What can be done to overcome these limiting factors?

Inform the facilitator when your country group is ready for intercountry group discussions.

RESOURCES

1. *Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants in resource-limited settings – towards universal access: recommendations for a public health approach*. Geneva, WHO, 2006 (http://www.who.int/hiv/mtct/en/).

2. *The global strategy for the acceleration of PMTCT scale up to eliminate HIV and AIDS in infants and young children.* WHO (Draft), 2007.

World Health Organization
Regional Office for South-East Asia

MAHATMA GANDHI MARG, INDRAPRASTHA ESTATE, NEW DELHI 110002
TEL: 91 11 2337 0804 FAX: 91 11 2337 0197
www.searo.who.int

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