



Module 2 Overview of PMTCT of HIV Infection



Total Time: 125 minutes (2 hours, 5 minutes)

- SECTION 1** Mother-to-Child Transmission of HIV Infection
- SECTION 2** Comprehensive Approach to Reducing HIV Infection in Infants and Young Children
- SECTION 3** Role of Maternal and Child Health Services in the Prevention of HIV Infection in Infants and Young Children
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SECTION 2

Activity/Method	Resources Needed	Time
Exercise 2.1 STI handshake: interactive group game	Marked paper strips measuring about 5 x 8 cm. A basket, box, or paper bag to hold paper strips	30 minutes
Activity/Method	Resources Needed	Time
Review local PMTCT policies and programmes	Copies of local PMTCT policies if not already in the Participant Manual.	15 minutes

Also have available the following:

- Overheads or PowerPoint slides for this Module (in Presentation Booklet)
- Overhead or LCD projector, extra extension cord/lead
- Flipchart or whiteboard and markers or blackboard and chalk
- Pencil or pen for each participant

INTRODUCTION



Total Section Time: 10 minutes



Trainer Instructions

Slides 1 and 2

Begin by reviewing the module objectives listed below.

After completing the module, the participant will be able to:

- Discuss mother-to-child transmission (MTCT) of HIV infection.
- Describe the four elements of a comprehensive approach to prevention of HIV infection in infants and young children.
- Describe the role of maternal and child health (MCH) services in the prevention of HIV infection in infants and young children.

In the midst of an unrelenting global HIV/AIDS epidemic, and the increasing proportion of infection among women, the world's attention is now focusing on the prevention of HIV infection among the most vulnerable individuals: the newborns, infants and young children. About 700,000 children became HIV infected in 2004 alone with over 90 percent occurring through MTCT. The WHO and its UN partners have advocated four strategic approaches to the prevention of HIV infection in infants. These approaches constitute the four elements of PMTCT which include:

1. Primary prevention of HIV infection in women of reproductive age group and their partners.
2. Prevention of unintended pregnancies among HIV-positive women
3. Prevention of HIV transmission from HIV-infected mothers to their unborn babies and infants
4. Care and support for HIV-infected women, their children and family members

Definitions

MTCT (Mother-to-child transmission) is the term used for vertical transmission of HIV from an HIV-infected mother to her newborn child.

PMTCT (prevention of mother-to-child transmission) is a commonly used term for programmes and interventions designed to reduce the risk of mother-to-child transmission (MTCT) of HIV.

Access to comprehensive Maternal and Child Health services is central to efforts to reduce HIV infection in infants and young children.

The following sections provide more details on the specific elements of the comprehensive approach.

SECTION 1: Mother-to-Child Transmission of HIV Infection



Advance Preparation

Ask colleagues working in the HIV prevention and care field or any related field to tell you local terms and phrases used to discuss sex, STIs, HIV disease or condoms. Make a list of these terms to use in the discussions.



Total Section Time: 15 minutes



Trainer Instructions

Slides 3 and 4

Introduce mother to child transmission.



Make These Points

- Emphasise that MTCT may occur during pregnancy, labour, delivery and breastfeeding.

Use of the term “MTCT” attaches no blame or stigma to the woman who gives birth to a child infected with HIV. It does not suggest deliberate transmission by the mother, who is often unaware of her own infection status and unfamiliar with the transmission risk to infants. Use of the term should not obscure the fact that HIV is often introduced into a family through the woman's sexual partner.

MTCT can occur during:

- Pregnancy
- Labour and delivery
- Breastfeeding



Trainer Instructions

Slides 5 and 6

Describe the scope of mother-to-child transmission of HIV infection in Nigeria.



Make These Points

- Heterosexual transmission accounts for 80% of HIV transmission in Nigeria.
- According to the Nigeria National PMTCT Guidelines 2005, HIV prevalence in the states of Nigeria ranges from 1.2% to 12% with 13 of the states having a sero-prevalence rate above the national median of 5%.

- The number of HIV-positive infants per year in Nigeria is estimated at 67,500-125,500.



Trainer Instructions

Slide 7

Describe outcomes of infants born to women infected with HIV without interventions.



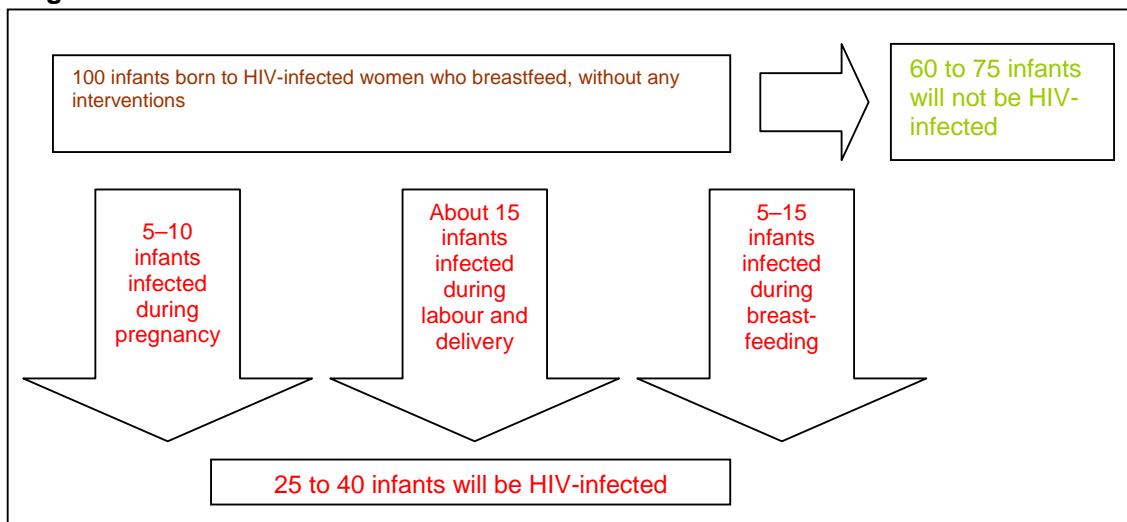
Make These Points

- Point out that without intervention (ARV prophylaxis or treatment) up to 40% of breastfed infants born to mothers infected with HIV can become HIV-infected.

Risk of transmission without interventions

Most transmission occurs during labour, delivery and during breastfeeding. Figure 2.1 shows that without intervention (ARV prophylaxis or treatment) up to 40% of infants born to mothers infected with HIV can become HIV-infected.

Figure 2.1 HIV Outcomes of Infants Born to Women infected with HIV



Trainer Instructions

Slide 8

Discuss risk factors for mother-to-child transmission of HIV infection.



Make These Points

- Much is known about specific factors that might put a woman at higher risk of transmission, as outlined in the following text and Table 2.1.
- We can use this knowledge to identify interventions to decrease the risk of HIV transmission to the infant during pregnancy, labour, delivery, and breastfeeding.

Risk factors for transmission

A great deal is known about specific factors that may put a woman at higher risk of transmitting HIV to her baby:

- Viral, maternal, obstetrical, foetal, and infant-related factors all influence the risk of MTCT.
- The most important risk factor for MTCT is the amount of HIV virus in the mother's blood, known as the viral load. The risk of transmission to the baby is greatest when the viral load is high—which is often the case with recent HIV infection or advanced HIV/AIDS.

Some of the risk factors for transmission are the same and some are different during pregnancy, labour and delivery, and breastfeeding. These similarities and differences are summarised in Table 2.1.

Table 2.1 Factors that May Increase the Risk of HIV Transmission		
Pregnancy	Labour and Delivery	Breastfeeding
<ul style="list-style-type: none"> ▪ High maternal viral load (new or advanced HIV/AIDS) ▪ Viral, bacterial, or parasitic placental infection (e.g., malaria) ▪ Sexually transmitted infections (STIs) ▪ Maternal malnutrition (indirect cause) ▪ Antepartum haemorrhage 	<ul style="list-style-type: none"> ▪ High maternal viral load (new or advanced HIV/AIDS) ▪ Rupture of membranes more than 4 hours before labour begins ▪ Invasive delivery procedures that increase contact with mother's infected blood or body fluids (e.g., episiotomy, foetal scalp monitoring, instrumental delivery) ▪ First infant in multiple birth ▪ Chorioamnionitis (from untreated STI or other infection) 	<ul style="list-style-type: none"> ▪ High maternal viral load (new or advanced HIV/AIDS) ▪ Duration of breastfeeding ▪ Early mixed feeding (e.g., food or fluids in addition to breast milk) ▪ Breast abscesses, nipple fissures, mastitis ▪ Poor maternal nutritional status ▪ Oral disease in the baby (e.g., thrush or sores)

Appendix 2-A provides guidance for MTCT services for women infected with HIV-2.



Trainer Instructions

Introduce information about the relationship between pregnancy and HIV infection as described below.

HIV and pregnancy

Pregnancy itself does not seem to have an effect on progression of HIV/AIDS. Women with HIV/AIDS, however, are more likely to experience pregnancy – related complications such as anaemia in pregnancy and premature delivery.

SECTION 2: Comprehensive Approach to Prevention of HIV Infection in Infants and Young Children



Advance Preparation

- Either recruit an expert on local and national epidemiology to present the local HIV and MTCT information *or* research and develop the presentation yourself.
- Prepare slide(s) on local epidemiology if needed.
- Prepare handout summarising local epidemiology of MTCT if not already in the Participant Manual.



Total Section Time: 90 minutes



Trainer Instructions

Slides 9 and 10

Explain that reducing HIV infection in infants and young children requires a multidimensional approach that includes the four elements listed in slide 10.



Make These Points

- Describe the four elements of the United Nation's (UN) comprehensive approach to PMTCT. The first element focuses on parents-to-be. The second element addresses family planning. The third and fourth elements focus on women who are HIV-infected, their infants, and their families. When possible, use local examples to describe the implementation of the four elements.



Trainer Instructions

Slide 11

. Introduce Element 1, as outlined below.

Although PMTCT programmes often focus on ARV prophylaxis, a comprehensive approach to the prevention of HIV infection in infants and young children consists of four elements:

Element 1: Primary prevention of HIV infection in women of reproductive age group and their partners.

The best way to prevent HIV infection of children through mother-to-child transmission, including transmission through breast milk, is to prevent HIV infection of parents-to-be.

About 70% of the global HIV burden is borne by sub-Saharan Africa where the main mode of HIV transmission is heterosexual contact.

The following factors are known to increase the risk of HIV infection in women:

- Having multiple sexual partners
- Immaturity of the genital tract.
- Vaginal ectopy.
- Sexually transmitted infections (STIs).
- Poor nutritional status.

Other factors contributing to women's vulnerability to HIV include:

- Poverty
- Lack of information
- Abuse
- Violence
- Sexual relationships with men who have multiple sexual partners



Make These Points

While the main focus of this programme is on Element 3 (Prevention of HIV transmission from women who are HIV-infected to their infants) and Element 4 (Provision of treatment, care, and support to women who are HIV-infected, their infants and their families), special attention is given to preventing HIV infection in parents-to-be, as outlined below.

Primary prevention strategies include the following components:

1. Safer and responsible sexual behaviour and practices

These include:

- Delaying the onset of sexual activity until marriage
- Practising abstinence
- Reducing the number of sexual partners
- Using condoms

This approach has come to be known as the “**ABC**” approach:

A = Abstinence – Refrain from having sexual intercourse

B = Be faithful – Be faithful to one partner

C = Condom use – Use condoms correctly and consistently

Recent reports of increasing new HIV infections transmitted from husbands to wives indicate a continued need to educate people about safer sex practices and other behaviour changes. For example, being faithful to one partner not infected with HIV is a risk reduction behaviour that has been proven to be significant in slowing the spread of HIV infection.

Behaviour change communication (BCC) efforts aim to change the behaviours that place individuals at risk for becoming HIV-infected or spreading HIV infection. BCC recognises that behaviour change is not simply a matter of increased knowledge; many factors, including family, church and community, influence change. BCC attempts to create a

household, community, and health facility environment in which individuals can modify their behaviour to decrease risk.

Especially among young women, the successful implementation of “ABC” outlined above may require support from organised programs. Healthcare workers can help women address these challenges through education and community linkages.

Condoms can help prevent HIV transmission when used correctly and consistently, especially in high-risk settings. Programmes that promote condom use for HIV prevention should also focus on condom use for PMTCT.

2. Provision of early diagnosis and treatment of STIs

The early diagnosis and treatment of STIs can reduce the incidence of HIV in the general population by about 40%. STI treatment services present an opportunity to provide information on HIV infection, MTCT, and referral for testing and counselling.

3. Making HIV testing and counselling widely available

HIV testing and counselling services need to be made available to all women of childbearing age because PMTCT interventions depend on a woman knowing her HIV status.

4. Provision of suitable counselling for women who are HIV-negative

Counselling provides an opportunity for a woman who is HIV-negative to better understand how to protect herself and her infant from HIV infection. It can also serve as powerful motivation to adopt safer sex practices, encourage partner testing, and discuss family planning.



Advance Preparation

Verify that a summary of local/national/regional epidemiology as well as a brief introduction to local/national PMTCT programme are included in the Participant Manual. If not, have copies available for distribution. Familiarise yourself with these materials.

For Exercise 2.1 STI handshake: interactive group game, strips of paper will be needed. To determine the number of strips needed, use the following formula:

- Number of strips = total number of participants + 1/3 total number of participants
(e.g., for 24 participants: $24 + 8 = 32$ strips)
- Cut the strips to measure about 5 x 8 cm.
- For groups of fewer than 10 participants, write "HIV" on 1 strip.
- For groups of 10 to 20 participants, write "HIV" on 1 strip and the name of a common local STI on another strip.
- Gather the "extra" strips (1/3 of total number of participants). Remove two strips. Write "condom" on one and "abstinence" on the other and set aside.



Trainer Instructions

Summarise the lessons from Element 1.

To review primary prevention of HIV, lead the group in the interactive game described below.

Exercise 2.1 Interactive group game: STI handshake	
Purpose	To explore the concept of HIV and STI transmission—both with and without the use of protection—when individuals are sexually active with multiple partners.
Duration	30 minutes
Introduction	Begin by explaining to participants that you have an interesting exercise for them. The purpose of the exercise will be clear upon completion.
PART 1	
Activities Part 1	<p>Instruct each participant to:</p> <ul style="list-style-type: none">▪ Take one piece of paper from the basket/box/paper bag, but do not look at it.▪ Shake hands with three other people in the group, and remember whom you shook hands with. <p>When everyone has shaken hands with three people, ask them to return to their seats and unfold their pieces of paper.</p> <p>Explain that most pieces of paper will be blank. Two people will have marked papers. Ask the participants with the paper labelled “HIV” to stand. Ask those with papers labelled with the common STI to stand. Explain that these people <i>represent</i> someone who is infected. Explain that the group will pretend that their handshakes represented sexual intercourse or some other risky sexual contact.</p> <p>Ask everyone who shook hands with the person holding the “HIV” paper to stand. Ask those who shook hands with the person holding the “STI” paper to stand.</p> <p>Now ask the people still seated if they shook hands with any of the new people standing. Ask them to stand as well.</p> <p>Continue this process until all the people who could have contracted the infectious disease have been identified and are standing.</p> <p>Stress that this is only an exercise: In real life, people make conscious decisions about whether or not to engage in risky behaviour.</p>
Debriefing	<p>Engage the group in discussion by asking:</p> <ul style="list-style-type: none">▪ What did you learn from this activity?▪ Why did the disease spread so quickly?▪ How can we slow the spread of STIs?▪ How can we slow the spread of HIV?

PART 2	
Activities Part 2	<p>Ask participants to refold their pieces of paper. Collect the paper strips, starting with those marked with “HIV” or “STI.”</p> <p>Place into the empty basket/box/paper bag the following items:</p> <ul style="list-style-type: none"> ▪ The original strips marked with “HIV” and “STI” ▪ The two strips from the “extra “ pile marked “condom” or “abstinence” ▪ Enough paper strips to total the number of participants in the group <p>Shake basket/box/bag and have each participant draw one piece of folded paper, keep it folded, and shake hands with three people as before. When they are finished shaking hands, they should return to their seats and unfold their papers.</p> <p>Ask those with the paper marked “HIV” or “STI” to stand.</p> <p>Ask participants who shook hands with those people to stand.</p> <p>Ask anyone who shook hands with any of the people standing to stand as well.</p> <p>Identify participants with the papers marked “condom” or “abstinence.” Ask them to sit down. Then ask any participants who shook hands with these two people to sit down as well.</p> <p>Note to Instructor: There should be significantly fewer people standing in Part 2 of this exercise than in Part 1.</p>
Debriefing	<p>Start the discussion by asking the following questions:</p> <ul style="list-style-type: none"> ▪ What happened this time? ▪ How did the use of condoms or abstinence affect the risk of contracting an infectious disease in this group? <p>End the activity by recording participants' feelings about the exercise on the flipchart, whiteboard, or blackboard.</p> <p>Ask the following questions:</p> <ul style="list-style-type: none"> ▪ How did you feel shaking hands in Part 2? ▪ How did you decide whom to shake hands with? ▪ Can you think of another way to prevent an STI besides condoms or abstinence (e.g., mutual monogamy with a non-infected person)? ▪ What is the effect of multiple partners on the STI rate?



Trainer Instructions

Slide 12

Introduce Element 2, as described below.

Element 2: Prevention of unintended pregnancies among HIV-positive women

It is every woman's fundamental right to decide for herself, without coercion, whether or not to have children. The responsibility of the government and health services is to provide HIV-positive women and their partners with comprehensive information and education about the risks associated with childbearing as part of routine public information about HIV/AIDS, to ensure they have real choices of action, and to respect and support the decisions they reach. This means:

- Providing good quality, user-friendly and easily accessible family planning services so that HIV-positive women can avoid pregnancy if they choose.
- Promoting condom either alone or combined with a more effective method of contraception (dual method use) for dual protection from STIs/HIV and unplanned pregnancy as an effective strategy to prevent HIV infection in all sexually active women.
- Integrating dual protection messages into family planning counselling services.
- Offering contraception to replace the birth-spacing effect of breastfeeding in women who choose replacement feeding because of their HIV infection.

In many countries in sub-Saharan Africa, bearing healthy children provides social status and access to family resources; this access is denied to women whose HIV-infected children fail to thrive, and die. To that extent, interventions to reduce HIV transmission from mother to child can help a woman consolidate her social position, despite her HIV infection.



Trainer Instructions

Slide 13

Introduce Element 3.

Element 3: Prevention of HIV transmission from women infected with HIV to their infants

Specific interventions to reduce HIV transmission from an infected woman to her child include:

- HIV testing and counselling
- Antiretroviral prophylaxis and treatment
- Safer delivery practices
- Safer infant-feeding practices

When an ARV drug is given to mother and infant to prevent MTCT, it is referred to as *ARV prophylaxis*.

How do these interventions work?

- Identify women infected with HIV
- Reduce maternal viral load
- Reduce infant exposure to the virus during labour and delivery
- Reduce infant exposure to the virus through safer feeding options

Make These Points

- Reiterate the key interventions for reducing the risk of MTCT listed below.

Ways to reduce risk of MTCT

- HIV testing and counselling
- Prophylactic antiretroviral therapy
- Elective caesarean section, where safe and feasible
- Safer delivery practices
- Infant-feeding counselling for safer infant-feeding practices



Trainer Instructions

Discuss the potential impact of interventions to prevent MTCT. Stress the importance of partner involvement.

In industrialised countries where women infected with HIV receive triple drug ARV treatment and do not breastfeed – and where elective caesarean sections are safe, feasible, and commonly performed – the rate of MTCT has been reduced to about 2%. ARV prophylaxis can reduce MTCT by 40–70%. The impact is greater (closer to 70%) when women do not breastfeed, because current ARV prophylactic regimens only prevent HIV transmission during the early breastfeeding period.

Partner involvement in PMTCT

PMTCT efforts should be as comprehensive as possible and acknowledge that both mothers and fathers have an impact on transmission of HIV to the infant:

- Both partners need to be aware of the importance of safer sex throughout pregnancy and breastfeeding.
- Both partners should be tested and counselled for HIV.
- Both partners should be made aware of and provided with PMTCT interventions.

Testing and counselling of pregnant women

In Nigeria, the high fertility rate, the premium placed on children as objects of parental hope for future survival, and the acceptance of antenatal care, enhance the cultural endorsement of testing and counseling for PMTCT of HIV in antenatal settings. The aim of testing and counselling is to help the woman take necessary action to ensure that she does not become infected with HIV. However, if she is already infected the aim is to help her protect her own health, the health of the unborn child, of her sexual partner and of her family.

ARV prophylaxis to mother–child pair

ARV prophylaxis given to a pregnant woman who is HIV–infected does not confer long–term benefits to the woman herself. Pregnant women with advanced HIV infection require combination ARV treatment to reduce the risk of AIDS–related illnesses. As treatment becomes more available, there should be integration between prophylaxis and treatment services.

Several potent regimens, either as monotherapy or combination therapy are currently in use as ARV prophylaxis. These regimens are discussed in detail in module 4.

Modification of obstetric practices

(i) Modification of routine obstetric practices for all women:

Recognition of HIV infection in pregnant women is the key to the prevention of childhood HIV infection. Issues of access to and affordability of antenatal care are crucial and must be addressed if interventions are to make any significant impact. All doctors, midwives and community healthcare workers who attend to pregnant women, should be trained in HIV and PMTCT testing and counselling to effectively include HIV antibody testing among the routine booking investigations. Rapid test kits should always be available for free HIV testing. In resource-constrained settings, the introduction of any fee, no matter how small, will prevent many willing clients from determining their HIV status. Syndromic management of STIs in the antenatal setting should be strengthened. Iron and folic acid supplementation, tetanus and malaria prophylaxis should be given to all pregnant women irrespective of their HIV status.

(ii) Specific modification of obstetric care for HIV positive women:

All HIV-positive women should be given optimal health care to ensure their safe delivery. An HIV-positive woman identified in pregnancy should have a full physical examination with focus on HIV-related symptoms and illnesses and signs of opportunistic infections especially tuberculosis (TB).

In addition, apart from the routine laboratory investigations conducted on all pregnant women, other investigations for HIV-positive women should include CD4 cell count or total lymphocyte count. Details of management considerations for HIV-positive women are addressed in module 4.

Invasive procedures such as chorionic villus sampling, amniocentesis and cordocentesis should be avoided. External cephalic version should be avoided as it may also increase the risk of HIV transmission to the foetus.

Modification of infant-feeding practices and support

Breastfeeding is an important route of HIV transmission from mother to child. HIV–positive mothers should be counselled about this risk and where possible should try to

avoid or limit breastfeeding. For HIV–negative mothers or mothers with unknown HIV status, exclusive breastfeeding remains the best infant-feeding choice.

However, in the context of PMTCT of HIV, the challenge is to strengthen and support mothers and partners to make breast milk substitutes acceptable, feasible, affordable, sustainable and safe (AFASS). Much as it is important to respect and support HIV-positive mothers in their decisions regarding infant feeding, they should be well informed about the various feeding options available to prevent their infants from being infected through breastfeeding.



Trainer Instructions

Slide 14

Summarise the lessons from Element 3. Introduce Element 4, caring for women and families living with HIV infection.



Make These Points

- Infants and children who are HIV–exposed require regular follow–up care—especially during the first 2 years of life—including immunisations, HIV testing, and ongoing monitoring of feeding, growth, and development (See *Module 6: Linkages to Treatment, Care and Support for Mothers and Families with HIV Infection*).

Element 4: Provision of treatment, care, and support to women infected with HIV, their infants and their families

Programmes for the prevention of HIV in infants and young children will identify large numbers of women infected with HIV who will need special attention. Medical care and social support are important for women living with HIV/AIDS to address concerns about both their own health and the health and future of their children and families.

If a woman is assured that she will receive adequate treatment and care for herself, her children, and her partner, she is more likely to accept HIV testing and counselling and, if HIV–positive, interventions to reduce MTCT.

It is important to develop and reinforce linkages with programmes for treatment, care, and support services to promote long–term care of women who are HIV–infected and their families.

HIV–related treatment, care, and support services for women

Services for women include the following:

- Prevention and treatment of opportunistic infections
- ARV treatment
- Treatment of symptoms
- Palliative care
- Nutritional support

- Reproductive health care, including family planning, cervical screening and counselling
- Psychosocial and community support

Care and support of the infant and child who are HIV–exposed

Children whose mothers are infected with HIV are at higher risk than other children for illness and malnutrition for many reasons:

- They may be infected with HIV and become ill, even when adequate health care and nutrition are provided.
- Those who receive replacement feeding lack the protective benefits of breastfeeding against diarrhoeal diseases, respiratory infections, and other complications.
- If the mother is ill, she may have difficulty caring for the children adequately.
- Families may be economically vulnerable due to AIDS–related illnesses and deaths among adult relatives.

Nutritional support for the infant or child who is HIV–exposed

- Support the mother’s infant–feeding choice.
- Provide education on hydration and early reporting of diarrhoea.
- Monitor for growth and development.
- Monitor for signs of infection that can alter feeding patterns.



Trainer Instructions

Summarise the lessons from Element 4.

SECTION 3: Role of Maternal and Child Health Services in the Prevention of HIV Infection in Infants and Young Children



Advance Preparation

No additional preparation is required for this session.



Total Section Time: 10 minutes



Trainer Instructions

Slides 15 and 16

Instruct the group to refer to the materials on in-country policies and programmes. Discuss the mutually supporting functions of MCH, PMTCT, and antenatal care services.

Maternal and child health services

HIV infection is one of the most important health problems for pregnant mothers and newborns in many developing countries. PMTCT programmes need to be integrated as an essential part of MCH care.

MCH care encompasses a broad range of educational and clinical services that help mothers, their children, and their families lead healthy lives. *Although all four elements of a comprehensive PMTCT programme are important, antenatal care is the most common entry point for women into those programmes.* MCH programmes facilitate PMTCT by providing:

- Essential antenatal care
- Family planning services
- ARV prophylaxis and treatment
- Safer delivery services
- Postnatal care, cervical screening services
- Counselling and support for the woman's chosen infant-feeding method

All mothers and infants will benefit from integrating PMTCT into existing MCH care services. Many elements of PMTCT programmes parallel and complement initiatives that are in development or are already offered by providers of quality antenatal care (e.g., Safe Motherhood and Baby Friendly Hospital Initiatives).

Integration of PMTCT into postnatal MCH services

Effective integration of PMTCT into postnatal MCH services is likely to strengthen maternal care, infant care, and family care.

- MCH postpartum care services help protect the mother's health by providing medical and psychosocial supportive care.
- MCH postnatal care services offer assessment of infant growth and development, nutritional support, immunisations, and early HIV testing. If the infant is HIV-infected, additional support services may include ARV treatment.
- MCH services provide social support, HIV testing and counselling for family members, referrals to community-based support programmes, and assistance in contending with stigma.

To reiterate a comprehensive PMTCT programme provides the continuum of care for mother and child.

The continuum begins with educating adolescent women about primary prevention of infection and continues through treatment, care, and support to women who are HIV-positive and their families.

PMTCT programmes ensure that women receive education and services to reduce risk of MTCT throughout pregnancy, labour and delivery, and infant feeding. They also provide support for both mother and child, especially during the crucial years of childhood growth and development. This comprehensive approach ultimately provides linkages to existing community services to address the complex needs and issues involved in HIV prevention, treatment, and management.



Trainer Instructions

Provide an overview of comprehensive MCH services, as described in the box below.



Make These Points

- Effective integration of PMTCT into postnatal MCH services is likely to strengthen maternal care, infant care, and family care.

Comprehensive MCH services

- Recognise that the best approach to preventing HIV infection in infants and children begins with prevention of primary infection in parents-to-be.
- Provide information to prevent unintended pregnancies in women who are HIV-positive and high-risk women with unknown status.
- Provide education about early recognition and treatment of STIs.
- Provide education about reducing the risk of MTCT.
- Link and refer patients to health care and community services that include the following:
 - HIV testing and counselling
 - Nutritional care
 - ARV treatment
 - Psychosocial and/or spiritual support (such as support groups for women with HIV)

- Treatment of symptoms
- Palliative care
- Economic assistance
- Educate patients about how to recognise symptoms of opportunistic infections and measures they can take to prevent such infections.
- Educate patients about how to recognise early signs and symptoms of HIV infection in the infant or child.



Trainer Instructions

Slides 17, 18 and 19

Summarise key points for Module 2, as presented in the box below.

Module 2: Key Points

- A comprehensive approach is needed to prevent HIV infection in infants and young children.
- The four elements of the comprehensive approach to PMTCT are:
 - Primary prevention of HIV infection
 - Prevention of unintended pregnancies in women infected with HIV
 - Prevention of HIV transmission from women infected with HIV to their infants
 - Provision of treatment, care and support to women infected with HIV, their infants and their families
- Without intervention, the risk of MTCT is 25–40%.
- Combination interventions can reduce the MTCT rate to as low as 2% in the absence of breastfeeding.
- MCH services are the entry point to PMTCT services.
- Linkages to community services can enhance treatment, care, and support.

APPENDIX 2–A

MTCT services for women who are HIV–2 infected

The woman infected with HIV–2 should have access to the entire range of antenatal, labour and delivery, and postnatal services as well as linkages to other services designed for women infected with HIV–1. Offering the mother infected with HIV–2 short-course ARV prophylaxis to prevent MTCT should follow national and local policy, if such a policy statement exists.

The following information, adapted from the CDC (October 1998) provides pertinent background on HIV–2 for consideration:

- HIV–2 infections are predominantly found in West Africa.
- HIV–2 infections:
 - Have the same modes of transmission as HIV–1
 - Also progress to AIDS
 - Are associated with similar opportunistic infections
 - Appear to be less transmissible from mother to child than HIV–1
 - Develop more slowly and appear less virulent than HIV–1
- Testing for both HIV–1 and HIV–2 should be considered in the following situations:
 - In settings where HIV–2 is present
 - When illnesses (such as opportunistic infections) appear in someone whose HIV–1 test is negative
 - When an HIV–1 Western blot indicates certain indeterminate test band patterns

The best approach to clinical treatment of HIV–2 is unclear. The following factors, however, should be considered:

- Non-nucleoside reverse transcriptase inhibitors (NNRTIs), such as nevirapine, are not as effective against HIV–2. Therefore, zidovudine therapy should be considered for expectant mothers who are infected with HIV–2 and their newborn infants to reduce MTCT risk, especially for women who become infected during pregnancy.
- Treatment response is more difficult to monitor than in women infected with HIV–1. CD4 counts and physical signs of immune deterioration are currently being used for monitoring.
- The woman's wishes: the healthcare provider should have a frank discussion with the woman infected with HIV–2 to explain the prevailing policy and practice and to support her in making a decision with which she is comfortable.
- Continued surveillance to monitor the spread of HIV–2 is necessary.

Infant Feeding

The woman infected with HIV–2 should be advised to follow national and local infant-feeding recommendations for women infected with HIV–1.

Additional exercises available for use to stimulate discussion among the group.

Exercise : Local terminology: interactive discussion	
Purpose	To determine local language used in HIV/AIDS prevention, care, and treatment programmes.
Duration	10 minutes
Introduction	HIV disease has fostered the development of a number of words in every language to describe the disease, how it is transmitted, how it is prevented, and those thought to be infected and at risk. Although these terms are at times stigmatising, it is important that as healthcare workers we are familiar with the language used by our patients. Additionally it is important that providers are consistent with their use of words for new concepts.
Activities	<p>In the local language, have the healthcare provider briefly discuss the risks of HIV transmission from a mother to her baby during pregnancy, during labour and delivery, and when breastfeeding—as she would explain these concepts to a patient.</p> <p>Ask the group to identify the words/concepts used locally that are the most useful and clear when working with pregnant women. Concepts where consensus might be important include: window period, condom, HIV, virus, ARVs, replacement feeding, stigma, disclosure.</p> <p>Ask the group to list the words used to describe HIV disease and people who are HIV-infected.</p> <p>Write these words on flipchart; chose the most appropriate words to describe each concept, and agree to use this language to avoid misinformation or stigmatising language.</p>
Debriefing	These concepts can be communicated to pregnant women, even if they had not previously existed in the local language.

Exercise: Local epidemiology: interactive discussion	
Purpose	To involve the participants in a discussion about local epidemiology.
Duration	10 minutes
Introduction	Ask participants whether they are familiar with local statistics on HIV and MTCT or whether they are surprised by the data.
Activities	<p>Ask the members of the group to tell you what factors they—as individuals and as healthcare workers—think are fuelling the epidemic.</p> <p>Write their responses on the flipchart or board in the front of the room.</p>
Debriefing	Summarise the session by noting that HIV and MTCT are fuelled by a number of individual behaviours, which may be shaped by a range of personal, cultural, political, and legal factors.