



National Training Package  
on Provider-initiated  
**Paediatric HIV**  
**Testing &**  
**Counselling**  
in Zambia

**Participant Manual**





# Foreword and Acknowledgements

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## National Training Package for Paediatric Provider-initiated HIV Testing and Counselling

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Approximately 95,000 children aged 0 to 14 years in Zambia live with HIV. The majority of these children are unaware of their HIV status. As one of the most affected nations in sub-Saharan Africa, there is a dire need to implement services to identify, care and treat HIV infection in children and families. This training package was developed by the Ministry of Health (MoH) to support the implementation and scale up of paediatric provider-initiated HIV testing and counselling (PITC) services nationally. PITC is the routine testing of children as the first step in determining HIV status, which is the gateway to accessing treatment and preventing rapid progress of the disease.

The Government of the Republic of Zambia is committed to providing equitable access to quality health care which includes universal access to anti-retroviral therapy (ART) for adults and children. This training package supports the nationwide scale-up of paediatric PITC. The training is meant for the range of healthcare workers in all settings who come in contact with and provide services for caregivers and their children — e.g. lay counselors, community health workers, nurses, nurse counselors, midwives, clinical officers, medical licentiates, paediatricians, physicians (non-paediatrician), programme managers, facility managers and district or provincial supervisors.

## Acknowledgements

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## Abbreviations and Acronyms

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3TC	Lamivudine
AIDS	Acquired immune deficiency syndrome
AMC	Average monthly consumption
ART	Anti-retroviral therapy
ARV	Anti-retroviral
ATT	Anti-tuberculosis treatment
AZT	Zidovudine
BCG	Bacille Calmette-Guérin
BFHI	Baby Friendly Hospital Initiative
CD4	T-lymphocyte CD4 count
CTX	Cotrimoxazole
DBS	Dried blood spot
DNA	Deoxyribonucleic acid
DPT	Diphtheria, pertussis, tetanus
EBF	Exclusive breastfeeding
EFV	Efavirenz
EID	Early infant diagnosis
EPI	Expanded Programme on Immunisations
FBC	Full blood count
GRZ	Government of the Republic of Zambia
HepB	Hepatitis B
Hib	Haemophilus influenzae type b
HIV	Human immunodeficiency virus
INH	Isoniazid
IPT	Intermittent presumptive therapy
IYCF	Infant and young child feeding
LFT	Liver function test
LMS	Logistics Management System
LMIS	Logistics Management Information System
NVP	Nevirapine
M&E	Monitoring and evaluation
MCH	Maternal child health
MMR	Measles-mumps-rubella
MoH	Ministry of Health
MTCT	Mother-to-child transmission (of HIV)
OB/GYN	Obstetrician / gynaecologist
OPV	Oral polio
PCOE	Paediatric HIV Centre of Excellence
PCR	Polymerase chain reaction
PCV	Pneumococcal conjugate
PEP	Post-exposure prophylaxis
PITC	Provider-initiated testing and counselling
PLHIV	People living with HIV
PMTCT	Prevention of mother-to-child transmission (of HIV)
QA	Quality assurance
RFT	Renal function test

SMZ	Sulfamethoxazole
SOP	Standard operating procedure
STI	Sexually transmitted infection
TB	Tuberculosis
TMP	Trimethoprim
ToT	Training of trainers
UNAIDS	Joint United Nations Programme on HIV/AIDS
UTH	University Teaching Hospital
WHO	World Health Organization

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# Module 1 Introduction and Course Overview

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**Total Module Time:** 120 minutes (2 hours)

## Learning Objectives

**After completing this module, participants will be able to:**

- Describe the objectives of the training.
- Understand the training agenda, including classroom and hospital-based sessions.
- Introduce the trainers and other training participants.
- Understand the ground rules and daily training activities.
- Complete the Pre-test.

### Session 1.1: Course Overview

### Session 1.2: Introductions and Ground Rules

### Session 1.3: Pre-test

## **Session 1.1      Course Overview**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Describe the objectives of the training.
- Understand the training agenda, including classroom and hospital-based sessions.

### **Target Audience for the Training**

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This training course is targeted to healthcare workers, managers and other members of the multidisciplinary team working in (or intending to work in):

- Paediatric hospital wards, including nurseries
- Any inpatient hospital ward with paediatric patients
- Under-five clinics
- PMTCT clinics
- Malnutrition clinics
- TB clinics
- Outpatient clinics with children or a mix of children and adults

The training is intended to be multidisciplinary, with a focus on:

- Lay counsellors
- Community health workers
- Nurse counsellors
- Nurses
- Midwives
- Clinical officers
- Medical licentiates
- Paediatricians
- Physicians (non-paediatrician)
- Programme managers
- Facility managers
- District or provincial supervisors

### **Background**

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In Zambia, an estimated 95,000 children are living with HIV; 90% of these children were infected through mother-to-child transmission of HIV (MTCT).

Without treatment, 30% of HIV-infected infants will die before their first birthday, and 50% before their second birthday. The goal of testing for HIV infection as early as possible is to identify HIV-exposed and HIV-infected children early and engage them in life-saving care and treatment. Early access to HIV care and treatment can delay disease progression, improve health and prevent death.

The MoH is rolling out a paediatric provider-initiated HIV testing and counselling (PITC) strategy nationwide. This strategy is discussed in depth in Module 4. In addition to HIV testing and counselling of all children of mothers living with HIV (i.e. HIV-exposed children), the PITC strategy recommends phased implementation of paediatric PITC, with priority placed on children most likely to be HIV-exposed or –infected:

- Children that are hospitalised (for any reason)
- Children presenting at TB clinics or malnutrition clinics
- Children less than 5 years of age
- Children of adults accessing HIV services
- Children known or suspected to have been sexually abused

The MoH recommends that paediatric PITC be provided at:

- Paediatric hospital wards, including malnutrition wards
- Any inpatient hospital ward with paediatric patients
- Under-five clinics
- PMTCT clinics
- Malnutrition clinics
- TB clinics
- Outpatient clinics with paediatric patients

## **Paediatric PITC Training Objectives**

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By the end of this training participants will be able to:

1. Explain the rationale for paediatric PITC and the benefits of diagnosing HIV as early as possible.
2. Define family-focused care and describe how paediatric HIV testing and counselling can be the entry point to care for the entire family.
3. Demonstrate an understanding of the national guidelines on HIV testing and counselling, including PITC and age-specific HIV testing algorithms.
4. Conduct the group and individual HIV pre-test session with caregivers and children.
5. Conduct rapid HIV testing on children and interpret the results, according to national guidelines.
6. Provide post-test counselling, according to national guidelines.
7. Collect DBS samples for DNA PCR testing on children and interpret the results, according to national guidelines.
8. Provide infant and young child feeding education, counselling and support, according to national guidelines.
9. Actively link HIV-exposed and HIV-infected children, mothers and family members with needed care, support and treatment services. Monitor and support adherence to follow-up appointments.
10. Provide caregivers, children and family members with ongoing supportive counselling.
11. Collect and analyse routine data on paediatric testing and counselling and put quality assurance measures in place.
12. Develop a site-specific action plan for implementing paediatric PITC.

## **Training Syllabus and Agenda**

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The training includes 11 modules, each with its own learning objectives. Each module is divided into sessions.

- Module 1: Introduction and Course Overview
- Module 2: Review of MTCT and PMTCT
- Module 3: Review of Infant and Young Child Feeding
- Module 4: Overview of Paediatric HIV Testing and Counselling
- Module 5: Pre- and Post-test Counselling for Paediatric HIV Testing
- Module 6: HIV Testing in Children
- Module 7: Ongoing Care, Treatment and Supportive Counselling for the Child and Family
- Module 8: Record Keeping, Monitoring and Quality Assurance
- Module 9: Paediatric PITC Action Planning and Implementation
- Module 10: Supervised Clinical Practicum and Action Planning
- Module 11: Training Review, Evaluation and Closing

See the Training Agenda in Appendix 1-A.

## Session 1.2      Introductions and Ground Rules

### Session Objectives

After completing this session, participants will be able to:

- Introduce the trainers and other training participants.
- Understand the ground rules and daily training activities.

<b>Exercise 1: Getting to know each other</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To create a comfortable learning environment</li> <li>▪ To provide an opportunity to get to know each other</li> </ul>
<b>Introduction</b>	<p>This is an activity that will provide an opportunity for participants get to know each other better. Participants will also be asked to write the following on a card or sheet of paper:</p> <ul style="list-style-type: none"> <li>▪ <b>Concerns:</b> What concerns or worries do you have about taking care of women, children and families with HIV?</li> <li>▪ <b>Expectations:</b> What do you hope to learn from this course?</li> <li>▪ <b>Strengths:</b> What three personal strengths do you bring to your work?</li> </ul> <p>The cards/sheets of paper will not be collected.</p>

<b>Exercise 2: Setting ground rules and introducing daily activities</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To develop and agree on a set of ground rules that will create an environment that facilitates learning</li> <li>▪ To introduce the “Anonymous Question Bowl” as a safe space for asking questions</li> <li>▪ To introduce the “Morning Rounds” as a way to start each day of the training</li> <li>▪ To introduce the “How did it go?” daily evaluation activity as a way to give feedback to the trainers during the training course</li> </ul>
<b>Introduction</b>	<p>Although the training is about HIV testing and counselling services for children, to be successful this must be a safe space for sharing and learning. Agreeing on ground rules and opportunities for providing feedback are first steps to creating a safe space.</p>

## Session 1.3 Pre-test

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### Session Objectives

After completing this session, participants will be able to:

- Complete the Pre-test.

<b>Exercise 3: Pre-Test</b>	
<b>Purpose</b>	<ul style="list-style-type: none"><li>▪ To assess participant knowledge before the training course</li></ul>
<b>Introduction</b>	<p>Participants will be given 30 minutes to take the Pre-test. The same test will be re-administered at the end of the course, when it will be referred to as the Post-test.</p> <p>The results of the Pre-test will give a picture of current knowledge. At the end of the course, results of the Pre-test will be compared with the Post-test to quantify how much participants learned during the training, help assess how well the training met its objectives, and provide information to improve future trainings.</p>

## Appendix 1-A Training Agenda

### Paediatric Provider-initiated HIV Testing and Counselling Training Programme

<b>WEEK 1: Classroom-based Training and Observation in Wards*</b>	
<b>Day 1</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ Participant Registration &amp; Introduction</li> <li>▪ Opening of the Training</li> <li>▪ Module 1: Introduction and Course Overview</li> <li>▪ Module 2: Review of MTCT and PMTCT</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Module 2, continued</li> <li>▪ Module 3: Review of Infant and Young Child Feeding</li> <li>▪ Wrap-Up &amp; Daily Evaluation</li> </ul>
<b>Day 2</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Overview of the Day</li> <li>▪ Tour &amp; Ward Observation</li> <li>▪ Module 3, continued</li> <li>▪ Module 4: Overview of Paediatric HIV Testing and Counselling</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Module 4, continued</li> <li>▪ Module 5: Pre- and Post-test Counselling for Paediatric HIV Testing</li> <li>▪ Wrap-Up &amp; Daily Evaluation</li> </ul>
<b>Day 3</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Overview of the Day</li> <li>▪ Observation in Wards</li> <li>▪ Module 5, continued</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Module 6: HIV Testing in Children</li> <li>▪ Wrap-Up &amp; Daily Evaluation</li> </ul>
<b>Day 4</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Overview of the Day</li> <li>▪ Observation in Wards</li> <li>▪ Module 7: Ongoing Care, Treatment and Supportive Counselling for the Child and Family</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Module 8: Record Keeping, Monitoring and Quality Assurance</li> <li>▪ Wrap-Up &amp; Daily Evaluation</li> </ul>
<b>Day 5</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Overview of the Day</li> <li>▪ Observation in Wards</li> <li>▪ Module 9: Paediatric PITC Action Planning and Implementation</li> <li>▪ Module 10: Supervised Clinical Practicum and Action Planning (Session 10.1 only)</li> <li>▪ Wrap-Up &amp; Daily Evaluation</li> </ul>

<b>WEEK 2: Hospital-based Practicum and Implementation Planning</b>	
<b>Day 6</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Practicum Planning</li> <li>▪ Practical Sessions in Wards</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Practical Sessions in Wards</li> <li>▪ Debrief &amp; Daily Evaluation</li> </ul>
<b>Day 7</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Practicum Planning</li> <li>▪ Practical Sessions in Wards</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Practical Sessions in Wards</li> <li>▪ Debrief &amp; Daily Evaluation</li> </ul>
<b>Day 8</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Practicum Planning</li> <li>▪ Practical Sessions in Wards</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Practical Sessions in Wards</li> <li>▪ Debrief &amp; Daily Evaluation</li> </ul>
<b>Day 9</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Practicum Planning</li> <li>▪ Practical Sessions in Wards</li> <li>▪ Practicum debrief</li> </ul>
Afternoon Session	<ul style="list-style-type: none"> <li>▪ Module 10: Supervised Clinical Practicum and Action Planning, continued</li> <li>▪ Debrief &amp; Daily Evaluation</li> </ul>
<b>Day 10</b>	
Morning Session	<ul style="list-style-type: none"> <li>▪ “Morning Rounds” &amp; Overview of the Day</li> <li>▪ Module 11: Training Review, Evaluation and Closing</li> <li>▪ Presentation of Training Certificates &amp; Closing</li> </ul>

\*Note that the training agenda and times are approximate and can be modified based on ward and clinic activities.

# Module 2      Review of MTCT and PMTCT

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**Total Module Time:**      135 minutes (2 hour, 15 minutes)

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss basic concepts of mother-to-child transmission (MTCT), including timing of transmission and risk factors associated with MTCT.
- Demonstrate understanding of the national PMTCT strategy.
- Describe key interventions to reduce the risk of MTCT during pregnancy, labour, delivery and postpartum during breastfeeding.
- Describe needed follow-up services for HIV-exposed children and their mothers, including paediatric HIV testing and counselling.

### **Session 2.1: Mother-to-Child Transmission of HIV Infection**

### **Session 2.2: Comprehensive Approach to Prevention of HIV Infection in Children**

## **Session 2.1      Mother-to-Child Transmission of HIV Infection**

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### **Session Objective**

**After completing this session, participants will be able to:**

- Discuss basic concepts of mother-to-child transmission (MTCT), including timing of transmission and risk factors associated with MTCT.

### **MTCT**

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About 16% of all pregnant women in Zambia are living with HIV. It is estimated that about 95,000 children are currently living with HIV, and more than 90% of these infections are the result of MTCT. MTCT is also referred to as “vertical transmission” or “perinatal transmission”.

Use of the term MTCT attaches no blame or stigma to the woman who gives birth to a child who is HIV-infected. It does not suggest deliberate transmission by the mother, who may be unaware of her own infection status and unfamiliar with how HIV is passed from mother to child.

### **Risk of MTCT**

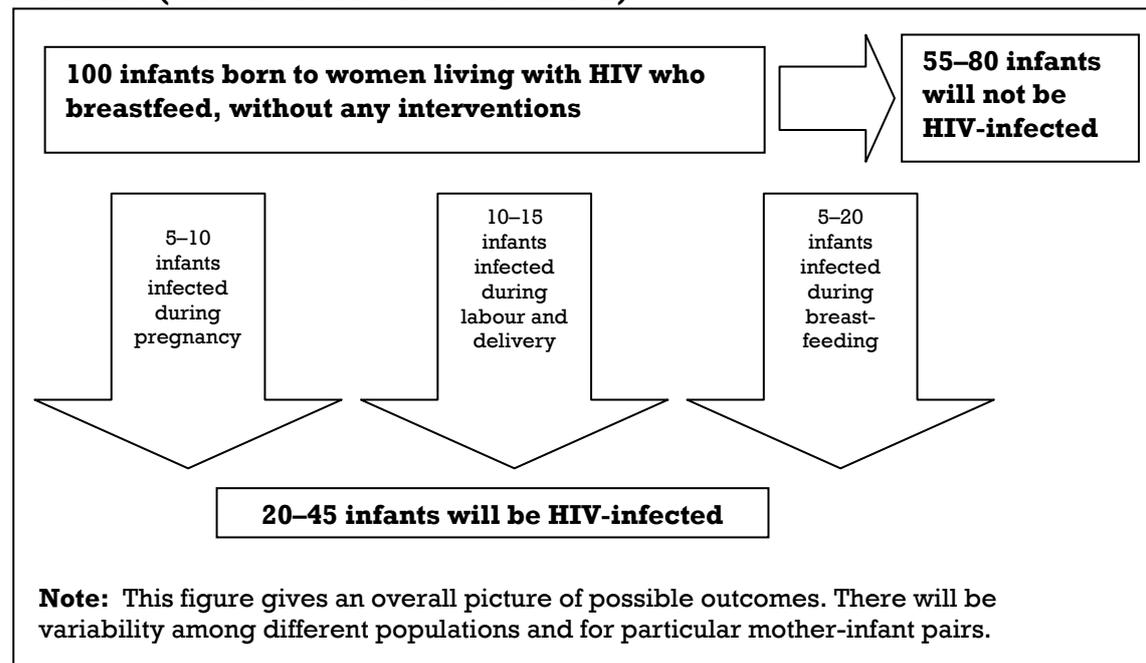
MTCT can occur during:

- Pregnancy
- Labour and delivery
- Breastfeeding

Among women with HIV who are not receiving ARVs and who breastfeed, as much as 25–50% of MTCT occurs during breastfeeding. The use of ARVs during pregnancy, labour, delivery and post-partum during breastfeeding has a major impact on reducing the risk of transmission.

Figure 2.1 shows that *without intervention*, 20–45% of infants born to mothers living with HIV who breastfeed become HIV-infected. PMTCT interventions can reduce transmission to levels as low as 1–10%, depending on the interventions available.

**Figure 2.1: Estimated HIV outcomes of infants born to women living with HIV (with no PMTCT intervention)**



## Risk Factors for MTCT

Viral, maternal, obstetrical, foetal and infant-related factors all influence the risk of MTCT. ARVs dramatically reduce risk of MTCT by lowering the amount of HIV in the mother’s blood. The most important risk factors for MTCT during pregnancy, labour, delivery and breastfeeding are as follows:

- Advanced HIV infection
  - Advanced infection, including AIDS, occurs when an individual’s CD4 count drops and the body is no longer able to fight off infection. The individual is more likely to have opportunistic infections, such as PCP (pneumocystis pneumonia).
  - High viral load, that is, when the amount of virus in the blood is high. Viral load is typically high when a woman is newly infected with HIV and when she has advanced HIV disease (low CD4 cell count and symptoms of severe disease both indicate that viral load is probably high). ARVs are used to reduce viral load.
- No use of ARVs during pregnancy, labour, delivery and post-partum during breastfeeding.

The most important risk factor for MTCT is advanced HIV and new HIV infection in the mother — when the amount of HIV in the mother’s blood is high.

Other factors that increase risk of MTCT are listed in Table 2.1.

**Table 2.1: Factors that increase the risk of MTCT during pregnancy, labour and delivery and breastfeeding**

Pregnancy	Labour and Delivery	Breastfeeding
<p><b>Advanced HIV and new HIV infection — when the amount of HIV in the mother’s blood is high.</b> Advance HIV disease is evidenced by low CD4 count and/or symptoms of severe disease.</p>		
<ul style="list-style-type: none"> <li>▪ Viral, bacterial or parasitic placental infections, such as malaria</li> <li>▪ Sexually transmitted infections (STIs)</li> <li>▪ Placental abruption (antepartum haemorrhage)</li> <li>▪ Intra-uterine growth restriction (IUGR)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rupture of membranes for more than 4 hours before delivery</li> <li>▪ Invasive delivery procedures that increase contact with mother's infected blood or body fluids (such as episiotomy, artificial rupture of membranes, vacuum extraction delivery)</li> <li>▪ Complicated deliveries (such as breech delivery and first infant in multiple births)</li> <li>▪ Untreated STI or other infections</li> <li>▪ Preterm delivery</li> <li>▪ Low birth weight</li> <li>▪ Intrapartum haemorrhage</li> </ul>	<ul style="list-style-type: none"> <li>▪ Long duration of breastfeeding</li> <li>▪ Mixed feeding (breastfeeding combined with other foods or fluids) before the age of six months</li> <li>▪ Oral disease in the infant (such as thrush or mouth sores)</li> <li>▪ Breast abscesses, nipple fissures and mastitis</li> </ul>

PMTCT interventions address these risk factors. In order to take advantage of PMTCT interventions, a woman must be tested and identified as HIV-infected. Specific PMTCT interventions are discussed in more detail later in this module.

## Session 2.2                      **Comprehensive Approach to Prevention of HIV Infection in Children**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Demonstrate understanding of the national PMTCT strategy.
- Describe key interventions to reduce the risk of MTCT during pregnancy, labour, delivery and postpartum during breastfeeding.
- Describe needed follow-up services for HIV-exposed children and their mothers, including paediatric HIV testing and counselling.

### **Goals of the National PMTCT Programme in Zambia**

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To significantly reduce HIV infection in infants and young children, PMTCT must be viewed as a comprehensive public health approach focusing not only on PMTCT, but also the prevention of HIV and care of those who are infected. A comprehensive approach, therefore, focuses not only on women with HIV, but also on their partners as well as parents-to-be whose HIV status is unknown or who have tested HIV-negative. The national PMTCT programme has adopted the four prongs WHO comprehensive approach, which is described in Table 2.2.

**Table 2.2: Four prongs of a comprehensive approach to PMTCT**

<b>Prong 1:</b>	Prevention of primary HIV infection including the ABC approach (Abstinence, Be faithful, Condoms)
<b>Prong 2:</b>	Prevention of unintended pregnancies among women living with HIV
<b>Prong 3:</b>	Prevention of HIV transmission from women living with HIV to their infants
<b>Prong 4:</b>	Provision of treatment, care and support to women living with HIV, their children and their families

For more information about the comprehensive approach, see Appendix 2-A.

### **PMTCT Strategy in Zambia**

The Zambia PMTCT strategy is a comprehensive one framed around the four prong comprehensive approach to preventing HIV in infants and young children (see Table 2.2 and Appendix 2-A). The strategy includes the following activities:

- Increasing utilisation of antenatal and postnatal care services. Currently in Zambia, antenatal care attendance is 93% (98% in urban areas and 91% in rural areas). Approximately 72% of women have four antenatal

care visits during their pregnancy. Postnatal care attendance is still low in most parts of the country, as is follow-up of HIV-exposed infants for determination of HIV status and enrolment in care and treatment.

- Promoting PITC for all pregnant women. PITC refers to testing that is a routine standard of care for everyone. With the PITC approach, pre-test information is provided and testing conducted unless specifically declined by the client. This is a different model than voluntary counselling and testing (VCT); in VCT, the request for testing is initiated by the client. PITC is initiated by the healthcare worker and is routinely offered to every patient as part of routine medical care.
- Increasing the percentage of pregnant women living with HIV who receive ARV treatment for women who are eligible and ARV prophylaxis for women living with HIV who do not need ART (see Appendix 2-B: WHO Clinical Staging of HIV Disease in Adults and Adolescents).
- Ensuring quality antenatal care, clean and safe deliveries and postnatal care (see Appendix 2-C: Antenatal, Labour and Delivery and Postpartum Care Package).
- Increasing the number of HIV-exposed infants on ARVs for PMTCT and the number of infants on cotrimoxazole from the age of 6 weeks until HIV infection is ruled out.
- Promoting safer infant and young child feeding practices and providing ongoing feeding counselling and support.
- Expanding access to early infant diagnosis and promoting paediatric PITC for all children.
- Providing ongoing follow-up care and treatment for all mothers and children. It is critical that PMTCT services are closely linked to HIV care and treatment services.

The goal of both the four pronged approach and the resulting national strategy is the reduction of MTCT, at the population and individual level:

- On a population level, prong 1 (primary prevention) and prong 2 (prevention of unintended pregnancies) prevent opportunities for MTCT to occur (when fully implemented, these approaches will result in fewer women with HIV; if infected, women with HIV will be less likely to experience an unintended pregnancy).
- On an individual level, prong 3 focuses on preventing transmission from a mother to her child; prong 4 advocates for treatment of women and family members living with HIV.
- Together all four prongs reduce the impact of HIV and the number of children infected.

### **Focus on Prong 3: Prevention of HIV Transmission from Women Living with HIV to their Infants**

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PMTCT refers to specific programmes to identify pregnant women living with HIV and to provide them with effective interventions to reduce MTCT. Many women will be diagnosed with HIV during pregnancy or at delivery (programmes should offer HIV testing and counselling routinely during

labour and delivery for women with unknown status). Although much of the focus of interventions in pregnancy and at delivery is on reducing the risk of MTCT, long-term HIV care and treatment for the mother and the child is a critical component of PMTCT services. PMTCT services do not end until the woman and her child are enrolled in a long-term HIV care and treatment programme.

## **PMTCT Core Interventions**

Specific interventions to reduce HIV transmission from a woman to her child are noted below:

- Routine HIV testing and counselling for all pregnant women to identify women living with HIV.
- ARVs (either ART or ARV prophylaxis) for the mother to reduce foetal exposure to the virus during pregnancy and delivery by reducing her viral load.
- Safer and less invasive delivery practices to reduce infant exposure to the virus during labour and delivery.
- ARV prophylaxis for the infant.
- Safer IYCF practices reduce MTCT risk through reduced infant exposure to the virus or reduced infant risk of infection from exposure to the virus (through exclusive breastfeeding in the first six months of life, the use of ARVs and by limiting the duration of breastfeeding as per national guidelines).
- Follow-up of the child and the mother after delivery, ongoing support for safer IYCF, early infant diagnosis and linkages to HIV care and treatment.
- Ongoing psychosocial and adherence counselling and support.

When ARVs are given to the mother and child for PMTCT, it is referred to as *ARV prophylaxis*.

When ARV medication is given to the mother to treat her own HIV disease as well as for PMTCT, it is referred to as ART.

## **ARVs for PMTCT**

The MoH publishes guidelines, based on WHO recommendations, for the use of ART and ARV prophylaxis for pregnant women and their infants for PMTCT. Guidelines governing the use of ART and ARV prophylaxis are routinely updated to respond to new scientific discoveries that can improve prevention and treatment strategies. It is important for healthcare workers to refer to and follow the most recent *National Guidelines for PMTCT* for specific information on ART eligibility criteria and the recommended drug regimens.

**Note:** Because these recommendations are revised periodically by the MoH to incorporate new scientific information, it is important to follow the most recent guidelines.

Irrespective of these specifics, all healthcare workers should know that:

- All pregnant women living with HIV should receive ARVs, including women living with HIV who present for the first time (no antenatal care) during labour. Women who qualify for ART should receive it; women living with HIV who are not eligible for ART should receive ARV prophylaxis.
- All infants who are HIV-exposed should receive ARV prophylaxis to further reduce the risk of MTCT. Prophylaxis for the infant begins as soon as possible after birth. The length of time the infant receives prophylaxis after birth is dependent on several factors (for example, whether the infant is breastfeeding or whether the mother is on ART).

## **Focus on Prong 4: Provision of Treatment, Care and Support to Women and their Families**

PMTCT programmes will identify large numbers of women living with HIV who will need ongoing care and treatment. Medical care and social support are important for women living with HIV to address concerns about both their own health and the health and the future of their children and families.

If a woman is assured that she will receive adequate treatment and care for herself and her family to stay healthy, she may be more accepting of HIV testing and counselling and, if living with HIV, accept interventions to reduce MTCT and those aimed at improving her health. It is critical for the healthcare worker to develop and reinforce referrals to programmes for treatment, care and support services that promote long-term care of women living with HIV and their families.

PMTCT is a gateway to lifelong care for women and their families. Access to ongoing services is dependent upon the health facility; some facilities have all services available while other locations may refer patients to a different facility or clinic within the facility for ongoing services. It is the responsibility of healthcare workers providing PMTCT services to ensure women and infants are enrolled for ongoing care and treatment.

<b>Exercise 1: PMTCT Interventions</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To review PMTCT interventions during pregnancy, labour, delivery, and post-partum, and for HIV-exposed infants</li> </ul>
<b>Introduction</b>	<p>This is a small group activity to review PMTCT interventions for mothers with HIV and their infants. The trainer will give your small group a sheet of flip chart paper that has <b>ONE</b> of the following five titles:</p> <ul style="list-style-type: none"> <li>▪ During pregnancy</li> <li>▪ During labour and delivery</li> <li>▪ During the post-partum period — for the mother</li> <li>▪ After birth — for the infant</li> </ul>

	<ul style="list-style-type: none"> <li>■ Ongoing care of HIV-exposed infants</li> </ul> <p>Your group should then:</p> <ol style="list-style-type: none"> <li>a. On the front of the sheet of flip chart paper, list the risks of MTCT during this stage.</li> <li>b. On the back of the flip chart paper, list the key PMTCT strategies during this stage.</li> <li>c. On the back of the flip chart paper, list challenges to delivering the PMTCT strategies during this stage.</li> </ol> <p>The small groups will have about 30 minutes for this discussion before reconvening as a large group to present and debrief.</p>
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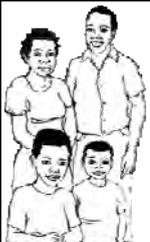
### **Module 2: Key Points**

- In order to provide paediatric testing and counselling services, healthcare workers must first understand how children become exposed to, and infected with, HIV.
- HIV can be passed from a mother living with HIV to her infant during pregnancy, labour, delivery or post-partum during breastfeeding. PMTCT interventions reduce the risk of transmission at each stage.
- Without PMTCT interventions, the rate of MTCT is approximately 20–45%.
- Risk of transmission to the infant is highest when the mother's CD4 count is low is high. The baby is at greater risk for infection when the mother is newly infected with HIV and during advanced HIV disease or AIDS.
- The Ministry of Health in Zambia has clear goals for PMTCT and to support the ongoing health of families affected by HIV. The national goals are framed around the four prongs of the comprehensive approach to preventing HIV in infants and young children:
  - Prevention of primary HIV infection
  - Prevention of unintended pregnancies in women living with HIV
  - Prevention of HIV transmission from women to their infants
  - Provision of treatment, care and support
- Specific interventions to reduce HIV transmission from a woman to her child include:
  - Routine HIV testing and counselling
  - ARVs (either ART or ARV prophylaxis) for the mother
  - Safer and less invasive delivery practices
  - ARV prophylaxis for the infant
  - Safer IYCF practices
  - Follow-up of the child and the mother after delivery
  - Ongoing psychosocial and adherence counselling and support
- PMTCT services do not end at delivery, but rather continue until an infant's HIV status can be determined, and mother and infant are connected to ongoing care.

## Appendix 2-A Comprehensive Approach to Preventing HIV infection in Infants and Young Children

To significantly reduce MTCT and achieve global and national targets, PMTCT must be viewed as a comprehensive public health approach focusing not only on women living with HIV, but also their partners, as well as parents-to-be whose HIV status is unknown or who have tested HIV-negative. The comprehensive approach includes the four prongs listed below:

Four prongs of a comprehensive approach to preventing HIV infection in infants and young children		
Prong	Target population	Additional information
<b>Prong 1:</b> Primary prevention of HIV infection	Women and men who are sexually active	This prong aims to prevent men and women from ever contracting HIV. If new HIV infections are prevented, fewer women will have HIV and fewer infants will be exposed to HIV.
<b>Prong 2:</b> Prevention of unintended pregnancies among women living with HIV	Women living with HIV	<p>This prong addresses the short and long term family planning and contraceptive needs of women living with HIV.</p> <p>Prongs 1 and 2 are not only the most effective ways to reduce the number of infants infected with HIV but are also beneficial to women.</p> 
<b>Prong 3:</b> Prevention of HIV transmission from women living with HIV to their infants	Women living with HIV	<p>This prong focuses on:</p> <ul style="list-style-type: none"> <li>■ Access to HIV testing and counselling during antenatal care (ANC), labour and delivery and the post-natal period</li> <li>■ Provision of ARV drugs to mother and infant before, during and after the birth and throughout breastfeeding</li> <li>■ Safer delivery practices to decrease the risk of infant exposure to HIV</li> <li>■ Infant feeding information, counselling and support for safer practices</li> <li>■ Ongoing care of the HIV-infected mother and HIV-exposed children throughout the breastfeeding period until the infant's final HIV status is confirmed</li> </ul> <p>These are the services usually described as "PMTCT services" — the package of services intended to reduce the risk of MTCT in women already infected with HIV.</p> 

<p><b>Prong 4:</b> Provision of treatment, care and support to women living with HIV, their infants and their families</p>	<p>Women, children and families living with HIV</p>		<p>This prong addresses the treatment, care and support needs of women, their children and families living with HIV.</p>
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Adapted from: WHO/CDC. (2008). Prevention of mother-to-child transmission of HIV: Generic Training Package, Draft trainer manual.

## Prong 1: Primary Prevention of HIV Infection

Since there is no cure for HIV, prevention of primary HIV infection is the most effective means of curbing the spread of HIV. Preventing HIV infection can reduce the impact of the epidemic on individuals, families and communities.

Protecting women from getting HIV in the first place is one way to reduce the number of HIV-infected infants and children. HIV will not be passed on to infants if their parents-to-be are not infected with HIV. Primary prevention is the key to reversal of the HIV epidemic.

Prevention activities must be multi-faceted, such as the “ABC approach” to prevention of sexual transmission. **The ABCs of preventing sexual transmission include:**

- A:** Abstinence — this approach works best for young people but may be appropriate for others to consider
- B:** Be faithful to your partner
- C1:** Consistent and correct condom use (male or female)
- C2:** Circumcision — male circumcision for HIV negative men can reduce the risk of sexual HIV transmission from women living with HIV to HIV-negative men
- D:** Delay sexual debut in young people
- E:** Early and complete treatment of sexually transmitted infections (STIs)
- F:** Free and open communication between partners about sex
- G:** Get to know your HIV status

The most effective way to reduce the number of children infected with HIV is to prevent HIV infection in women (Prong 1) and to prevent unintended pregnancy among women infected with HIV (Prong 2). Consider the following examples:

- A 1% reduction of HIV infection rate among adults OR a 16% reduction of the number of unintended pregnancies among women living with HIV would result in a similar reduction of MTCT as has been achieved in programmes offering single-dose nevirapine regimen for PMTCT.<sup>1</sup>
- The recent 2% reduction in MTCT in Zimbabwe was more likely due to a decrease in HIV prevalence in pregnant women rather than to the impact of PMTCT programmes.<sup>2</sup>

Prevention activities are of particular importance among pregnant and lactating women because the impact of HIV will affect both the woman and her infant. Newly acquired HIV infection in a pregnant or lactating woman heightens the risk of transmission to the infant, hence the need to intervene with education and information on an ongoing basis among this vulnerable group. Remember, most Zambians are NOT infected with HIV; efforts need to be stepped up to ensure that they remain uninfected.

## **Prong 2: Prevention of Unintended Pregnancies among Women Living with HIV**

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Family planning is part of a comprehensive public health strategy to prevent MTCT. This strategy is particularly important in Zambia where contraceptive prevalence is estimated to be approximately 34%, suggesting high levels of unmet need for family planning. With appropriate support, women who know they are living with HIV and who choose not to have more pregnancies can avoid unintended pregnancies and therefore reduce the number of infants at risk for MTCT. Women and their partners can also make informed choices about the spacing and timing of their pregnancies. Because there is a strong relationship between a mother's CD4 count, her clinical status and increased transmission of HIV to her baby, women and their partners can be supported to use family planning to time pregnancy for when the woman is in good health and has a higher CD4 count. For example, a woman just starting ART may want to wait until she responds to the treatment, as evidenced by a higher CD4 count, before she has a child — she and her partner can use family planning until this time.

The rapid spread of HIV in Zambia has made access to effective contraception and family planning services even more important. Providing contraceptive and reproductive health counselling contributes to informed decision-making about pregnancy choices for families. Such counselling also provides an opportunity to discuss related risks, both present and future, and is a vital component of reducing maternal and child morbidity and mortality.

Many women and men are unaware of their HIV status. Reproductive health settings can offer HIV testing and counselling for all women and men. These services should not be limited to women seeking antenatal care.

A range of family planning services, when integrated into existing health services, can minimise the stigma associated with HIV and provide:

- Individual and couple counselling
- Continued risk assessment
- HIV testing and counselling for women, men and couples
- Counselling on male circumcision
- Early diagnosis and treatment of STIs, including HIV
- Information and skills needed to practise safer sex
- Access to contraceptives

- Effective family planning can help prevent unintended pregnancies and help women and their partners to plan a pregnancy for a time when there is less risk of MTCT.
- Providing safe and effective contraception and high-quality reproductive health counselling contributes to informed decision-making about pregnancy choices.

### **Barrier methods and “double protection”**

Either male or female condoms, used correctly and consistently, can provide protection against STIs, reduce the risk of HIV transmission and prevent unintended pregnancies.

The use of “**double protection**” refers to the use of condoms along with any other family planning method (e.g. condoms and contraceptive pill) irrespective of one's HIV status. Double protection is a highly effective strategy for preventing unintended pregnancies while also protecting from HIV infection or re-infection and other STIs.

## **Prong 3: Prevention of HIV transmission from Women Living with HIV to their Infants**

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PMTCT refers to specific programmes to identify pregnant women living with HIV and to provide them (and their children and partners) with interventions to reduce MTCT, including:

- Access to HIV testing and counselling during antenatal care (ANC), labour and delivery and the post-natal period
- Provision of ARV drugs to mother and infant before, during and after the birth and throughout breastfeeding
- Safer delivery practices to decrease the risk of infant exposure to HIV
- Infant feeding information, counselling and support for safer practices
- Ongoing care of the HIV-infected mother and HIV-exposed children throughout the breastfeeding period until the infant's final HIV status is confirmed

Many women living will be diagnosed with HIV during pregnancy or at delivery (programmes should offer HIV testing and counselling routinely during labour and delivery for women with unknown status). PMTCT

programs provide entry points to care and treatment for these women, their infants and families.

## **Prong 4: Provision of Treatment, Care and Support to Women and their Families**

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PMTCT programmes will identify large numbers of women living with HIV who will need ongoing care and treatment. Long term care, treatment and social support are important for women living with HIV to address concerns about both their own health and the health and the future of their children and families.

If a woman is assured that she will receive adequate treatment and care for herself and her family to stay healthy, she may be more likely to accept HIV testing and counselling and, if living with HIV, accept PMTCT interventions and interventions aimed at improving her health after the child is born. It is important to develop and reinforce referrals to programmes for treatment, care, and support services that promote long-term care of women living with HIV, and their families.

PMTCT can be seen as a gateway into lifelong care for women and their families. Access to these services is dependent upon the health facility; some facilities have all services available while other locations may refer patients to a different facility or clinic within the facility for ongoing services.

## Appendix 2-B WHO Clinical Staging of HIV Disease in Adults and Adolescents

<b>Clinical Staging</b>	
<b>Clinical Stage 1</b>	
<ul style="list-style-type: none"> <li>■ Asymptomatic</li> </ul>	<ul style="list-style-type: none"> <li>■ Persistent generalized lymphadenopathy</li> </ul>
<b>Clinical Stage 2</b>	
<ul style="list-style-type: none"> <li>■ Moderate unexplained<sup>1</sup> weight loss (under 10% of presumed or measured body weight)<sup>2</sup></li> <li>■ Recurrent respiratory tract infections (sinusitis, tonsillitis, otitis media, pharyngitis)</li> </ul>	<ul style="list-style-type: none"> <li>■ Herpes zoster</li> <li>■ Angular cheilitis</li> <li>■ Recurrent oral ulceration</li> <li>■ Papular pruritic eruptions</li> <li>■ Seborrhoeic dermatitis</li> <li>■ Fungal nail infections</li> </ul>
<b>Clinical Stage 3</b>	
<ul style="list-style-type: none"> <li>■ Unexplained<sup>1</sup> severe weight loss (over 10% of presumed or measured body weight)<sup>2</sup></li> <li>■ Unexplained<sup>1</sup> chronic Candidiasis for longer than one month</li> <li>■ Unexplained persistent fever (intermittent or constant for longer than one month)</li> <li>■ Persistent oral Candidiasis</li> <li>■ Oral hairy leukoplakia</li> </ul>	<ul style="list-style-type: none"> <li>■ Pulmonary tuberculosis</li> <li>■ Severe bacterial infections (e.g. pneumonia, empyema, pyomyositis, bone or joint infection, meningitis, bacteraemia)</li> <li>■ Acute necrotizing ulcerative stomatitis, gingivitis or periodontitis</li> <li>■ Unexplained anaemia (below 8 g/dl ), neutropenia (below 0.5 x 10<sup>9</sup>/l) and/or chronic thrombocytopenia (below 50 x 10<sup>9</sup> /l)</li> </ul>
<b>Clinical Stage 4</b>	
<ul style="list-style-type: none"> <li>■ HIV wasting syndrome</li> <li>■ Pneumocystis Jiroveci pneumonia</li> <li>■ Recurrent severe bacterial pneumonia</li> <li>■ Chronic herpes simplex infection (oro-labial, genital or ano-rectal of more than one month's duration or visceral at any site)</li> <li>■ Oesophageal Candidiasis (or Candidiasis of trachea, bronchi or lungs)</li> <li>■ Extra pulmonary tuberculosis</li> <li>■ Kaposi sarcoma</li> <li>■ Cytomegalovirus infection (retinitis or infection of other organs)</li> <li>■ Central nervous system toxoplasmosis</li> <li>■ HIV encephalopathy</li> <li>■ Extra pulmonary cryptococcosis including meningitis</li> </ul>	<ul style="list-style-type: none"> <li>■ Disseminated non-tuberculosis mycobacterial infection</li> <li>■ Progressive multifocal leukoencephalopathy</li> <li>■ Chronic cryptosporidiosis</li> <li>■ Chronic isosporiasis</li> <li>■ Disseminated mycosis (extra pulmonary histoplasmosis, coccidiomycosis)</li> <li>■ Recurrent septicaemia (including non-typhoidal Salmonella)</li> <li>■ Lymphoma (cerebral or B cell non-Hodgkin)</li> <li>■ Invasive cervical carcinoma</li> <li>■ Atypical disseminated leishmaniasis</li> <li>■ Symptomatic HIV-associated nephropathy or HIV-associated cardiomyopathy</li> </ul>
<sup>1</sup> Unexplained refers to a condition that is not explained by other conditions. <sup>2</sup> Assessment of body weight among pregnant women needs to consider the expected weight gain of pregnancy.	

Adapted from: WHO. (2006). Revised WHO clinical staging and immunological classification of HIV and case definition of HIV for surveillance.

## Appendix 2-C Antenatal, Labour and Delivery and Postpartum Care Package

Recommended Antenatal Care Schedule		
Evidence shows that quality basic antenatal care can be provided in four focused visits at key times in the pregnancy.	<b>First visit</b>	<b>within the first 16 weeks</b>
	<b>Second visit</b>	<b>24-28 weeks</b>
	<b>Third visit</b>	<b>32 weeks</b>
	<b>Fourth visit</b>	<b>36 weeks</b>
Further visits can be arranged as required.		

Recommended ANC Services for Women Living with HIV	
<b>Patient history</b>	<ul style="list-style-type: none"> <li>▪ Take medical, obstetric, family and psychosocial history.</li> <li>▪ Determine drug history, known allergies and use of traditional medicines such as herbal products.</li> <li>▪ Ask about alcohol or drug use and/or abuse.</li> </ul>
<b>Physical exam and vital signs</b>	<ul style="list-style-type: none"> <li>▪ Conduct full physical exam to assess pregnancy as well as current signs or symptoms of illness. Target common symptoms of TB, malaria, STIs and HIV disease progression.</li> <li>▪ Conduct pelvic exam, including speculum and bimanual exams, if indicated by symptoms.</li> <li>▪ Conduct clinical staging of HIV disease to determine need for ARV therapy.</li> </ul>
<b>Lab tests</b>	<ul style="list-style-type: none"> <li>▪ Perform routine tests for syphilis and anaemia.</li> <li>▪ Perform urine tests to detect urinary tract infection and protein.</li> <li>▪ Confirm HIV status per national guidelines, if not already confirmed.</li> <li>▪ Obtain CD4 count and, if available, perform HIV viral testing.</li> </ul>
<b>Nutritional assessment and counselling</b>	<ul style="list-style-type: none"> <li>▪ Monitor for anaemia, adequate caloric and nutrient intake.</li> <li>▪ Provide iron, folate and other micronutrient supplementation as per national guidelines.</li> <li>▪ Counsel on proper diet based on local resources.</li> </ul>
<b>STI screening</b>	<ul style="list-style-type: none"> <li>▪ Assess risk for STIs.</li> <li>▪ Diagnose and treat early according to national guidelines.</li> <li>▪ Counsel about STIs, their signs and symptoms and how STIs increase the risk of HIV transmission.</li> <li>▪ Educate about avoiding transmission or re-infection.</li> </ul>
<b>Tuberculosis</b>	<ul style="list-style-type: none"> <li>▪ Screen all women for TB who have had a cough for</li> </ul>

<b>Recommended ANC Services for Women Living with HIV</b>	
	<p>more than 2 to 3 weeks, regardless of HIV status.</p> <ul style="list-style-type: none"> <li>■ Provide preventive therapy (isoniazid prophylaxis) when appropriate.</li> <li>■ Specific TB treatment regimens are recommended for women infected with HIV, pregnant women and women already receiving ARV therapy.</li> </ul>
<b>Malaria</b>	<ul style="list-style-type: none"> <li>■ Administer malaria prophylaxis according to national guidelines.</li> <li>■ In malaria endemic areas, intermittent presumptive therapy (IPT) for malaria is recommended in pregnant women. As cotrimoxazole can prevent and treat malaria, IPT is not recommended for HIV-infected women on cotrimoxazole prophylaxis.</li> <li>■ Identify acute cases and treat appropriately.</li> <li>■ Recommend indoor residual spraying: application of a long-acting insecticide like DDT on the inside walls and roof of the home and domestic animal shelters.</li> <li>■ Recommend use of insecticide-treated bed nets.</li> </ul>
<b>Opportunistic Infection (OI) prophylaxis</b>	<ul style="list-style-type: none"> <li>■ Provide cotrimoxazole as per national guidelines.</li> <li>■ Provide other prophylaxis based on national guidelines.</li> </ul>
<b>Screening and care for other infections</b>	<ul style="list-style-type: none"> <li>■ Screen for and treat common parasitic, bacterial, and fungal infections when indicated.</li> <li>■ Treat STIs, candidiasis, PCP, and any other common infections or HIV-related OIs.</li> <li>■ Treat scabies; ensure entire family is treated.</li> <li>■ Treat skin infections; educate patient to promptly clean and cover breaks in the skin (and, where available, apply gentian violet or topical antibiotics) to prevent common skin infections.</li> </ul>
<b>Tetanus immunisations</b>	<ul style="list-style-type: none"> <li>■ Administer according to national guidelines.</li> </ul>
<b>ARV therapy during pregnancy</b>	<ul style="list-style-type: none"> <li>■ Determine eligibility for therapy, using clinical staging and, if possible, CD4 count.</li> <li>■ Provide ARV therapy when indicated, according to WHO or national guidelines. Provide adherence support.</li> <li>■ Educate mother about importance of prophylaxis for infants.</li> </ul>
<b>ARV prophylaxis during pregnancy</b>	<ul style="list-style-type: none"> <li>■ For patients not on ART, provide ARV prophylaxis according to national PMTCT guidelines. Provide adherence support.</li> <li>■ Educate mother about importance of prophylaxis for infants.</li> </ul>
<b>IYCF feeding</b>	<ul style="list-style-type: none"> <li>■ All women require IYCF information, counselling and support.</li> <li>■ Promote and support all women to breastfeed</li> </ul>

### Recommended ANC Services for Women Living with HIV

	<p>exclusively for the first six months of life. Follow <i>National Guidelines for PMTCT</i> for specific recommendations after the age of six months.</p> <ul style="list-style-type: none"> <li>■ Provide women with support to resist pressure to mixed feed.</li> </ul>
<b>Counselling on safer pregnancy</b>	<ul style="list-style-type: none"> <li>■ Provide women with information and instructions on seeking care early in their pregnancy.</li> <li>■ Provide information on pregnancy complications such as bleeding, fever, pre-eclampsia, severe pallor, and abdominal pain.</li> <li>■ Teach about the importance of delivering in a safe environment with HCWs skilled in safer delivery practices, universal precautions and the administration of ART or ARV prophylaxis to mother and child.</li> <li>■ Provide counselling about the effects of alcohol and drug abuse on growth and development of the foetus. Refer to treatment programmes if needed.</li> <li>■ Provide advice and support on other prevention interventions, such as safe drinking water.</li> </ul>
<b>Counselling on HIV danger signs</b>	<ul style="list-style-type: none"> <li>■ Provide women with information on seeking health care for symptoms of HIV disease progression, such as opportunistic infections, chronic persistent diarrhoea, candidiasis, fever or wasting.</li> <li>■ Refer women to HIV care and treatment clinic when eligible.</li> </ul>
<b>Partners and family</b>	<ul style="list-style-type: none"> <li>■ Because stress and lack of support have been linked to progression of HIV infection, ask who she has to confide in. If needed, provide her with the assistance she needs to identify a support network.</li> <li>■ Provide/refer for counselling, including couples counselling; encourage partner testing, adoption of risk reduction and disclosure.</li> <li>■ Refer women, partners and families to community-based support clubs or organisations where available.</li> <li>■ Assess need to test her other children.</li> </ul>
<b>Effective contraception planning</b>	<ul style="list-style-type: none"> <li>■ Counsel about correct and consistent use of condoms during pregnancy to prevent infection with other STIs, which can increase the rate of MTCT.</li> <li>■ Provide long-term family planning and contraception counselling, with partner involvement when possible.</li> </ul>

### **Recommended PMTCT strategies during labour and delivery**

- Testing and counselling (if HIV status is unknown)
- Provide ARVs during labour and delivery for all women living with HIV
- Use universal precautions and infection prevention practices.
- Keep labour as normal as possible. Use non-invasive obstetric practices.
- Avoid:
  - Internal examinations
  - Artificial rupture of membranes
  - Prolonged labour
  - Unnecessary trauma during delivery, e.g. internal foetal monitoring, episiotomy, forceps or vacuum extraction
- Minimise risk of postpartum haemorrhage, including:
  - Active management of third stage of labour
  - Repair genital tract lacerations
  - Careful removal of products of conception
  - Use of controlled cord traction
  - Uterine massage
  - Safe blood transfusion (if needed)

### **Recommended PMTCT strategies postpartum and ongoing — for the mother**

- Use universal precautions.
- Provide immediate post-delivery care, including assessing the amount of vaginal bleeding and proper disposal of blood soaked liners.
- Provide IYCF counselling, support her to initiate breastfeeding and encourage immediate skin-to-skin contact. Discuss breast health.
- Breastfeeding is recommended for all women and their infants. However, a woman with HIV has the right to choose to formula feed. In this case, formula feeding should only be recommended if she meets ALL of the conditions required to safely formula feed (see Module 3).
- Continue ART or give ARV prophylaxis.
- Observe for signs and symptoms of postpartum infection, such as burning during urination, fever, bad smelling lochia, cough or shortness of breath, redness, pain or pus from incision or tear/cut, severe lower abdominal pain or tenderness
- Counsel the mother on perineal and breast care, as well as infection prevention.
- Provide testing and counselling after delivery if she has not yet been tested.
- Counsel on risk reduction in the postnatal period.
- Provide postpartum family planning counselling and services, as well as counselling on return to sexual activity.
- Make a plan for postpartum follow-up of the mother at the clinic. The standard postpartum visits are scheduled for six days postpartum and again at six weeks postpartum.

### **Recommended PMTCT strategies postpartum and ongoing — for the mother**

- Make sure the woman is linked to an HIV care and treatment programme for her ongoing health care.
- Provide emotional support.

### **Recommended PMTCT strategies during the postpartum period — for the infant**

- Use universal precautions.
- Provide immediate newborn care, including:
  - Clamp the cord immediately after birth. Do not milk the cord
  - Wipe the infant's mouth and nose with gauze when head is delivered
  - Only use suction when meconium-stained liquid is present
  - Wipe the infant dry with a towel
  - Encourage immediate skin-to-skin contact and breastfeeding, if that is the mother's choice
  - Cover the infant loosely with a blanket
- Give infant ARV prophylaxis:
  - Infant ARV prophylaxis (infants of women on ART):
    - Breastfed infants: NVP once per day from birth until six weeks of age
    - Formula fed infants: NVP or AZT once per day from birth until six weeks of age
  - Infant ARV prophylaxis (infants of women on ARV prophylaxis):
    - Breastfed infants: NVP once per day from birth until one week after complete cessation of breastfeeding.
    - Formula fed infants: NVP or AZT once per day from birth until six weeks of age
- Give immunisations according to national guidelines.

### **Recommended care of HIV-exposed infants (ongoing)**

- Regular follow-up at the Under-Five Clinic.
- Continue cotrimoxazole prophylaxis until HIV is ruled out.
- Growth and developmental assessments.
- Use Integrated Management of Childhood Infections (IMCI) guidelines.
- Provide IYCF counselling and support.
- Conduct nutritional assessment and support.
- Provide Vitamin A as per national guidelines.
- Give immunisations according to national guidelines.
- Screen for TB exposure or disease and treat per national guidelines.
- Counsel on malaria prevention and provide malaria treatment.
- Start cotrimoxazole prophylaxis at six weeks; continue until HIV infection is ruled out.
- Conduct early infant diagnosis with DBS at six weeks.
- Repeat HIV testing according to the national algorithm.
- Enrol in care and treatment programme.

Adapted from: Republic of Zambia Ministry of Health. (2008). Prevention of Mother to Child Transmission of HIV. A Reference Manual for Health Workers.

## **Resources**

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Republic of Zambia, Ministry of Health. (2008). Prevention of Mother to Child Transmission of HIV (PMTCT): A Reference Manual for Health Workers.

Republic of Zambia, Ministry of Health. (2007). PMTCT: National Protocol Guidelines Integrated Prevention of Mother-to-Child Transmission of HIV/AIDS.

WHO. (2009). Rapid advice: Use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants.

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<sup>1</sup> Sweat, M.D. et al. (2004). Cost-effectiveness of nevirapine to prevent mother-to-child HIV transmission in eight African countries. *AIDS*, 18(12), 1661-71.

<sup>2</sup> Dube, S. et al. (2008). Estimating vertically acquired HIV infections and the impact of the prevention of mother-to-child transmission program in Zimbabwe: Insights from decision analysis models. *Journal of Acquired Immune Deficiency Syndrome*, 48(1), 72-81.

# Module 3      Review of Infant and Young Child Feeding

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**Total Module Time:**      270 minutes (4 hours, 30 minutes)

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Demonstrate understanding of national infant and young child feeding (IYCF) guidelines.
- Discuss the advantages and disadvantages of breastfeeding and formula feeding.
- Demonstrate effective communication and counselling skills when speaking with individuals and groups.
- Discuss the steps involved in IYCF counselling.
- Understand the healthcare worker's role in supporting mothers to make the safest IYCF decisions for their child.

**Session 3.1: Overview of National IYCF Guidelines**

**Session 3.2: Overview of Counselling and Communication Skills**

**Session 3.3: Overview of IYCF Counselling**

## Session 3.1      Overview of National IYCF Guidelines

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### Session Objectives

**After completing this session, participants will be able to:**

- Demonstrate understanding of national infant and young child feeding (IYCF) guidelines.
- Discuss the advantages and disadvantages of breastfeeding and formula feeding.

### PITC and Infant Feeding

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The implementation of paediatric PITC increases the opportunities for HIV-exposed children to be identified in a range of settings outside of PMTCT and other primary care settings. As such, it is possible that healthcare workers who may not have been trained in PMTCT or infant feeding may be required to discuss feeding issues with parents whose infants have been diagnosed with HIV as part of the post-test counselling session.

### Basic Facts on Malnutrition, Infant Feeding and Child Survival

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Nearly half of all Zambian children under five are stunted (chronically malnourished), 5% are wasted (severe malnutrition), and 28% are underweight. Over 42% of all deaths in children less than five years of age in Zambia are related to malnutrition. Unsafe feeding practices — such as those that provide insufficient nutrition or result in diarrhoea or respiratory infection — are a major cause of low weight, illness and death in children.

Adequate food and nutrition is required to support growth and development in children from infancy to adolescence. Poor nutrition weakens the immune system, making children more vulnerable to disease, and makes it difficult for children, including those living with HIV, to fight infections and to grow and develop properly.

The *National Guidelines on HIV and Infant Feeding* state that all mothers living with HIV should be provided with IYCF counselling to support feeding practices that prevent malnutrition, food- and water-borne illness and reduce the risk of death in children. For women living with HIV, IYCF counselling and support also promotes feeding practices that reduce MTCT.

The government of Zambia promotes the following initiatives to reduce MTCT through breastfeeding:

- **HIV-related care**, including lifelong ART if eligible, for all women who are living with HIV. In addition to reducing the risk of MTCT during

pregnancy, labour and delivery, maternal ART reduces the risk of HIV transmission during the breastfeeding period.

- **Infant ARV prophylaxis.** Infant ARV prophylaxis reduces the risk of MTCT.
- **Exclusive breastfeeding for the first six months of life** followed by the introduction of complementary foods with continued breastfeeding to 12 months of age.
- **Formula feeding** if the conditions necessary for safe formula feeding can reliably and consistently be met. In Zambia, the conditions for safe formula feeding are rarely met due to lack of access to clean water, insufficient family income to purchase infant formula and stigma related to formula feeding. In settings where the conditions for safe formula feeding cannot be met, formula feeding carries a high risk of morbidity and mortality and is not recommended.

Breastfeeding in the context of HIV as well as conditions necessary to formula feed are discussed later in this module. Information about the Baby-friendly Hospital Initiative (BFHI), Ten Steps to Successful Breastfeeding, which can be found in Appendix 3-A, is a summary of practices to improve conditions for all mothers and their infants including those who are not breastfeeding.

#### **Key Infant Feeding Terms**

**Exclusive Breastfeeding (EBF):** Feeding a child ONLY breast milk and no other liquids or solids, with the exception of prescribed drops or syrups consisting of vitamins, mineral supplements or medicines. EBF is recommended *during the first six months of life*.

**Replacement Feeding:** Feeding a child *who is not receiving any breast milk* with a diet that provides all the nutrients the child needs. During the first six months of life, the only type of replacement feeding that meets an infant's nutritional requirements is infant formula.

**Mixed Feeding:** Feeding both breast milk and other liquids (such as water, tea, infant formula, cow's milk) or foods (such as porridge or rice). Mixed feeding is strongly discouraged during the *first six months of life*.

**Complementary Feeding:** Feeding any food, whether manufactured or locally prepared, that is suitable as a complement to breast milk or to infant formula, when either becomes insufficient to satisfy the nutritional requirements of the child. Complementary foods need to be introduced once the child is *six months of age* to ensure adequate nutrition. Such foods are also commonly called "weaning foods" or "breast milk supplements".

## **Infant Feeding Recommendations**

Breast milk is the ideal nourishment for infants. In the first six months of life it contains all the nutrients, antibodies and hormones an infant needs to

thrive. After six months, breast milk should be complemented by nutritious family foods, but it continues to protect babies from diarrhoea and respiratory infections and stimulates the development of the immune system, which allows children to fight off disease.

Breastfeeding also has many health and emotional benefits for the mother, including decreased blood loss postpartum, delayed return to fertility and decreased risk of cancer of the breast and ovaries. Immediate postpartum breastfeeding helps the bonding between mother and child. The unique and undisputed benefits of breastfeeding underpin the IYCF recommendations for both mothers with HIV and those who are uninfected.

### **Mothers who are HIV-uninfected and Mothers with Unknown HIV Status**

The IYCF recommendations for women who are *not* HIV-infected or who do not know their HIV status are as follows:

- Breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding for up to 24 months or beyond.
- **Mothers whose status is unknown** should be offered HIV testing and counselling to address barriers to HIV testing.

### **Mothers who are Living with HIV**

The IYCF guidelines for women who are HIV-infected start with the strong recommendation that women with HIV and their HIV-exposed infants should be provided with the HIV-related care they need. Women who are eligible should receive lifelong ART. Maternal ART reduces the risk of HIV transmission during pregnancy, labour, delivery and during the breastfeeding period. It is also recommended that women with HIV should:

- Breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding to 12 months of age. At 12 months:
  - **If the child is either HIV-uninfected or of unknown HIV status** — breastfeeding should stop gradually (over a period of one month) if a nutritionally adequate and safe diet without breast milk can be provided.
  - **If the child is known to be HIV-infected** — mothers are strongly encouraged to continue breastfeeding as per the recommendations for the general population, that is, up to 24 months or beyond.

Whether the child is HIV-infected or uninfected, breastfeeding should only stop once a nutritionally adequate and safe diet without breast milk can be provided.

Mothers known to be HIV-infected may consider expressing and heat-treating breast milk as a short-term feeding strategy (see Appendix 3-B: Steps to Express and Heat-treat Breast Milk):

- When the infant is born with low birth weight or is otherwise ill in the neonatal period and unable to breastfeed
- When the mother is unwell and temporarily unable to breastfeed
- When the mother has a temporary breast health problem such as mastitis
- To assist mothers to stop breastfeeding
- If antiretroviral drugs are temporarily not available

In addition, all HIV-exposed infants should receive ARV prophylaxis to reduce the risk of MTCT.

- **If mother is on ART:** Provide the infant with daily ARV prophylaxis from birth to six weeks of age.
- **If mother is not on ART and breastfeeding:** Provide the infant with daily ARV prophylaxis from birth until one week after complete cessation of all breastfeeding.
- **If mother is not on ART and formula feeding:** Provide the infant with daily ARV prophylaxis from birth to six weeks of age.

## Six versus twelve months

In their 2006 infant feeding guidelines, the World Health Organization (WHO) recommended that women with HIV exclusively breastfeed for the first six months of life and then wean if it was possible for them to do so safely. In comparison, the 2009 guidelines recommend breastfeeding six months longer — to 12 months of age. There are a number of research findings that have led to the recommendation that women with HIV breastfeed longer:

- Several recent studies have suggested that the risk of HIV transmission through breastfeeding is actually quite low (4% from six weeks to six months of age) if the mother breastfeeds exclusively. This risk is low even if the mother is not on ART. Breastfeeding can be made even safer, in terms of risk of MTCT, if the mother or child is on ART or ARV prophylaxis.
- Children who are exclusively breastfed are less likely to get sick (in comparison to infants who were mixed fed or formula fed in the first six months).
- Breastfeeding to 12 months (rather than six) avoids the difficulties encountered in trying to provide an adequate diet to the non-breastfed infant from 6–12 months of age.

Balancing the risks and benefits of breastfeeding, WHO and the Zambia MoH agree that for women with HIV, 12 months of breastfeeding capitalizes on the maximum benefit of breastfeeding while reducing unnecessary long term risk of HIV infection. However, for the HIV-uninfected mother there are many other health benefits to her infant if she continues breastfeeding until 24 months.

## Exclusive Breastfeeding

The government of Zambia promotes exclusive breastfeeding for the first six months of life and then the introduction of complementary foods with continued breastfeeding to 12 months of age. As background information, a summary of the advantages and disadvantages of breastfeeding appears in Table 3.1.

**Table 3.1: Breastfeeding**

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>■ Breast milk is the perfect food for babies and protects them from many diseases, especially diarrhoea and respiratory illnesses and the risk of dying of these diseases.</li> <li>■ Breastfeeding improves brain growth and development.</li> <li>■ Breast milk gives babies all of the nutrition and hydration they need. They do not need any other liquid or food for the first six months.</li> <li>■ Breast milk is always available and does not need any special preparation.</li> <li>■ Breastfeeding provides the close contact that deepens the emotional relationship or bond between mother and child.</li> <li>■ Exclusive breastfeeding for the first six months lowers the risk of passing HIV (compared to mixed feeding).</li> <li>■ Breastfeeding also reduces the risk of water- and food-borne illness (e.g. diarrhoea).</li> <li>■ Many women breastfeed, so people will not ask the mother why she is doing it.</li> <li>■ Exclusive breastfeeding helps the mother recover from childbirth (promotes uterine involution, i.e., the return of the uterus to a non-pregnant state) and helps protect her from getting pregnant again too soon.</li> </ul>	<ul style="list-style-type: none"> <li>■ Risk of MTCT exists as long as a mother living with HIV breastfeeds because breast milk contains HIV.</li> <li>■ Mother may be pressured, due to family or cultural traditions, to give water, other liquids or foods to the infant during the first six months of breastfeeding. This practice, known as mixed feeding, increases the risk of HIV, diarrhoea and other infections.</li> <li>■ Breastfeeding requires feeding on demand at least 8–10 times per day during the first six months, and working mothers may find it difficult to breastfeed exclusively once they return to work unless they have adequate support (alternatively, they can express milk during the workday and arrange to store it in a cool place).</li> <li>■ Mothers require an additional 500 kcal/day to support exclusive breastfeeding during the infant's first six months. This is the equivalent of one extra small meal a day.</li> </ul>

## **Risk of HIV Transmission Through Breastfeeding**

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### **Risk Factors for MTCT during Breastfeeding:**

- Advanced HIV disease — Women with low CD4 cell count and clinical signs or symptoms of advanced disease are more likely to transmit HIV during breastfeeding.
- No ART for women who are eligible — ART reduces the amount of HIV in the breast milk and improves the maternal CD4 count.
- No ARV prophylaxis for the HIV-exposed infant — ARV prophylaxis reduces MTCT risk in the infant.
- Mixed feeding — giving a baby other foods or drinks, including water or formula during the first six months of breastfeeding increases the risk of transmission.
- Longer duration of feeding — the longer a child breastfeeds, the higher the risk of HIV-infection.
- Breast problems such as breast abscesses, nipple fissures and mastitis.
- Oral disease in the infant (such as thrush or mouth sores)
- Acute maternal infection — if an uninfected woman becomes HIV-infected during lactation, the risk of MTCT is dramatically increased.

### **Decreasing the Risk of HIV Transmission**

- **Provide maternal ART for eligible women:** All women with HIV who are eligible should be on ART.
- **Provide infant ARV prophylaxis:** All HIV-exposed infants should receive ARV prophylaxis.
- **Avoid mixed feeding:** Given the risks involved with mixed feeding, it is essential that healthcare workers emphasise the importance of exclusive breastfeeding for the first six months for mothers living with HIV who breastfeed. For those mothers who are able to safely formula feed, exclusive formula feeding (no breast milk) is essential.
- **Check the infant's mouth regularly:** Suggest to the mother that she check her infant's mouth daily for oral disease (such as thrush or mouth sores). If the infant has an oral disease, the mother should bring the child to the clinic as soon as possible. If possible, the mother should feed her child expressed, heat-treated breast milk by cup until the child's oral condition resolves.
- **Ensure infant is correctly attached:** Helping the mother learn good breastfeeding technique is an important responsibility of healthcare workers. A mother that correctly attaches her infant to the breast is less likely to experience sore nipples, engorgement and the conditions associated with engorgement including mastitis and breast abscesses — all of which increase risk of MTCT. Good breastfeeding technique begins with correct positioning and attachment. See Table 3.2 for more information on positioning and attachment.

### **Risks of Mixed Feeding Before Six Months of Age**

Mixed feeding is when breast milk is combined with any other food or liquid, including milk from any source, during the first six months of life. Even providing the breastfed child with formula is considered mixed feeding!

Risks associated with mixed feeding before six months of age include:

- Increased risk of HIV transmission to the infant
- Breast milk is replaced with less nutritious foods
- Increased risk of diarrhoea and pneumonia in infants

Recent studies have suggested that the risk of HIV transmission from mother to infant from about six weeks to six months of exclusive breastfeeding is about 4%. If the infant is given formula in addition to breast milk, *that risk appears to double.*

**Breastfed infants given food (such as porridge or rice) in the first six months of life are 11 times more likely to acquire HIV from their mothers than infants who are exclusively breastfed. (Because the study took place between 2001 and 2005, none of the mothers were on ART; only sd-NVP was available for PMTCT. Multi-drug ART and ARV prophylaxis would have further reduced rates of MTCT.)**

### **Why is it acceptable to mixed feed after six months?**

By six months of age, the child's gastrointestinal track will have matured to the point where foods and liquids other than breast milk no longer irritate the intestinal mucosa. At this age, the child's need for complementary foods outweighs the risk of mixed feeding.

**Table 3.2: Breastfeeding positions**

	<p><b>Cradle hold</b></p> <p>This is a commonly used position that is comfortable for most mothers.</p> <ul style="list-style-type: none"><li>■ Mother holds infant with his head on her forearm and his whole body facing his mother's body.</li></ul>
	<p><b>Clutch Hold</b></p> <p>This is good for mothers with large breasts or inverted (flat) nipples.</p> <ul style="list-style-type: none"><li>■ Mother holds infant at her side, lying on his back, with his head at the level of the mother's nipple. Mother supports the infant's head with the palm of her hand at the base of his head.</li></ul>



### Side-Lying Position

This allows mothers to rest or sleep while infant nurses. Good for mothers who have had caesarean births.

- Mother lies on her side with infant facing her. Mother should pull infant close and guide his mouth to her nipple.

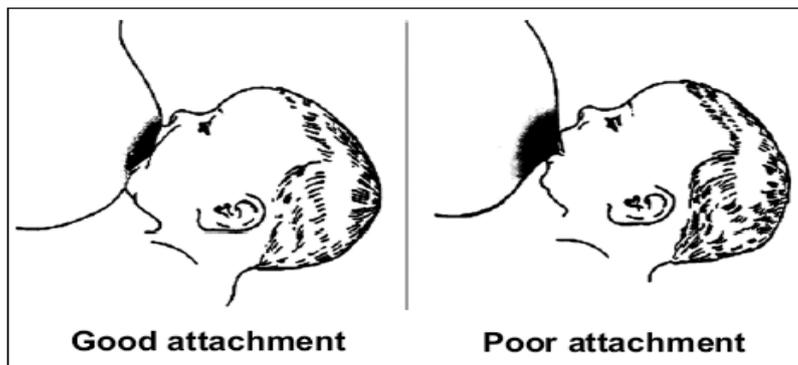
Adapted from: Department of Health and Human Services, Office of Women's Health (2004). The National Women's Health Information Center, An Easy Guide to Breastfeeding U.S. <http://www.4woman.gov/pub/BF.General.pdf>

## Attachment<sup>1</sup>

Remember to (see Figure 3.1):

- Support the breast
- Bring infant quickly to the breast
- Look for signs of proper attachment:
  - Mouth wide open
  - More areola seen above than below
  - Chin touching the breast
  - Lower lip curved outward

**Figure 3.1: Good and poor breastfeeding attachment**



## Conditions Needed to Safely Formula Feed

Breastfeeding is recommended for all women and their infants. However, a woman with HIV has the right to choose to formula feed. In this case, formula feeding should only be recommended if she meets ALL SIX of the conditions listed in Table 3.3, below<sup>2</sup> (previously referred to as “AFASS” — acceptable, feasible, affordable, sustainable and safe). Note that these conditions are applicable only to infants who are HIV uninfected or of unknown HIV status; if the child is known to be HIV-infected, mothers are strongly encouraged to continue breastfeeding as per the recommendations for the general population, that is, up to 24 months or beyond.

**Table 3.3: Questions to help mothers assess the safety of formula feeding**

<b>Conditions</b>	<b>Possible questions to ask clients</b>
Safe water and sanitation are assured at the household level and in the community, <b>and</b> ,	<ul style="list-style-type: none"> <li>▪ <i>Where do you get your drinking water?</i></li> <li>▪ <i>What kind of latrine/toilet do you have?</i></li> <li>▪ <i>Do you have access to enough clean water and soap to wash your hands thoroughly before preparing the baby's feeds?</i></li> </ul>
The mother, or other caregiver, can reliably provide sufficient infant formula milk to support normal growth and the development of the infant, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>How much money can you afford for formula each month?</i></li> <li>▪ <i>Do you have money for transportation to get replacement feeds when you run out?</i></li> <li>▪ <i>Do the markets or stores in your area tend to run out of formula?</i></li> </ul>
The mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>Can you sterilise feeding equipment and utensils such as bottles, teats, measuring and mixing spoons? (The most common way to sterilise feeding equipment and utensils is by boiling in a pot of water.)</i></li> <li>▪ <i>Do you have a refrigerator with reliable power?</i></li> <li>▪ <i>Can you boil water for each feed?</i></li> <li>▪ <i>How would you arrange night feeds?</i></li> </ul>
The mother or caregiver can, in the first six months, exclusively give infant formula milk, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>How have you fed your other babies (if she has given birth before)?</i></li> <li>▪ <i>How do you feel about not breastfeeding this baby?</i></li> </ul>
The family is supportive of the practice, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>Of the people who live with you, who knows that you have HIV?</i></li> <li>▪ <i>Is your partner supportive of formula feeding and is he willing to help? How about your mother-in-law? Other responsible family members?</i></li> <li>▪ <i>Will all caregivers be able to prepare the feeds safely and correctly?</i></li> </ul>
The mother or caregiver can access health care that offers comprehensive child health services.	<ul style="list-style-type: none"> <li>▪ <i>Do you have consistent access to a healthcare facility that offers child health services?</i></li> <li>▪ <i>Are these services free? If not, are you able to afford the health services should you or your child need it?</i></li> </ul>

**For most women in Zambia, feeding with infant formula is not safe. As such, the government recommends that women with HIV breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding to 12 months of age.**

For information on safe formula feeding, see Appendices 3-C: Safety and Formula Feeding and 3-D: Preparing Infant Formula. For information on cup feeding, see Appendix 3-E: Advantages of Cup Feeding.

## Milk Needs after Weaning

Children need milk in some form until at least two years of age. Children weaned before two years of age — which includes HIV-exposed children weaned at about 12 months of age — will require animal milk (such as cow, sheep or goat milk) as part of a diet providing **adequate** micronutrient intake (see definition of “adequate diet” in box to the right). Unpasteurised milk needs to be boiled before it is served to a child or an adult. The table below shows approximately how much milk the non-breastfed infant needs to consume each day.

An “**adequate diet**” is one that ensures the child is provided with four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods).

**Table 3.4: Minimum amount of milk per day, children 6–24 months**

	<b>Animal milk</b>
If other animal-source foods are regularly consumed	200–400 ml
If other animal-source foods are not consumed*	300–500 ml
* Children who are not breastfed and do not consume the minimum amount of animal milks or animal-source foods daily will need to consume large quantities of calcium, zinc and iron to meet their nutritional needs. This may be achieved by eating fortified foods, if available, or by taking daily supplements.	

Infants weaned before 12 months of age (for example, because the mother returns to work, is too ill to breastfeed or has died), will need to be fed commercial infant formula. Boiled animal milk may be substituted for formula from 6–12 months of age, that is, assuming it is part of an adequate diet.

In the second year after giving birth, healthcare workers should remember to:

- Ensure that all women eligible for ART are receiving it and that all HIV-exposed infants receive ARV prophylaxis according to national guidelines noted above.
- If it is not safe for a mother to stop breastfeeding when her child is 12 months of age, discuss with her the underlying causes of malnutrition and provide advice, support and referrals as needed.

**Exercise 1: Evidence-based statements on HIV and IYCF**

<b>Purpose</b>	<ul style="list-style-type: none"><li>■ To review the current Zambian guidelines on infant feeding for mothers living with HIV</li></ul>
<b>Introduction</b>	<p>During this large group discussion participants will discuss the following evidence-based statements and discuss what each means:</p> <ul style="list-style-type: none"><li>■ Mothers known to be HIV-infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first six months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life.</li><li>■ Systematic review of current research indicates that, compared to mixed feeding, exclusive breastfeeding is associated with decreased HIV transmission in first six months of infant life.</li><li>■ Maternal ART reduces HIV transmission not only during pregnancy and labour but also through breastfeeding.</li><li>■ Infant ARV prophylaxis reduces the risk of MTCT through breastfeeding.</li><li>■ Cessation of breastfeeding before six months of age is associated with an increased risk of infant morbidity (especially diarrhoea) and mortality in HIV-exposed children.</li><li>■ Women — both women with HIV and those who are uninfected — are more likely to exclusively breastfeed for six months when they are provided with consistent messages and frequent, high quality counselling.</li></ul> <p>Discussion on each of the above statements should respond to the following three questions:</p> <ul style="list-style-type: none"><li>■ How does this statement translate into recommendations for practice?</li><li>■ Would implementing this recommendation mean a change from what we are doing now? Explain.</li><li>■ How would you turn this recommendation into counselling messages for mothers? Give examples.</li></ul>

## Session 3.2      Overview of Counselling and Communication Skills

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### Session Objectives

**After completing this session, participants will be able to:**

- Demonstrate effective communication and counselling skills when speaking with individuals and groups.

### Role of the Healthcare Worker in Counselling

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Effective counselling allows the healthcare worker (including nurses, nurse counsellors, doctors, lay counsellors, etc.) to understand how the caregiver feels and actively encourages the caregiver to participate in decision-making. While the primary role of the counsellor is to convey information, good counselling engages the caregiver (or older child) in a discussion. Note that in some situations, the healthcare worker's role also includes speaking to and counselling the child (see Appendix 3-F: General Tips on How to Talk With Children and Adolescents). Engaging the caregiver or child is a process supported by:

- Listening to the caregiver.
- Ensuring that the caregiver and (if appropriate) the child understand the information presented and feel comfortable and confident asking questions and offering their thoughts.
- Clearly identifying the issues and the choices to be made.
- Guiding the caregiver or child in an assessment of the family's circumstances and options.

The healthcare worker is not responsible for solving all of the caregiver's problems and is not responsible for the caregiver's decisions; the healthcare worker is responsible for clearly communicating information the caregiver needs to know and evaluating comprehension.

### Key Counselling and Communication Skills

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**Active listening:** Active listening helps to establish a trusting relationship with the caregiver. Active listening helps the healthcare worker gather information and helps the caregiver assume responsibility. It is important for the caregiver to know that she or he has the complete attention of the healthcare worker, not just their physical presence but psychological and emotional attention as well. Ideally, active listening involves the skills listed below. Some of the skills can not be fully achieved in the context of large group counselling sessions, but counsellors should aim to utilise the skills as much as possible. These skills should always be fully utilised during individual counselling sessions.

Skills for active listening include:

- Listening to and understanding verbal messages.
- Observing and taking note of non-verbal behaviour — posture, facial expressions, movement and tone of voice.
- Understanding the caregivers' social and cultural context — trying to understand caregivers as whole people and to be sensitive to their family and social setting.
- Listening to caregivers' negative comments or feelings — make note of things caregivers say that may have to be challenged.

Barriers to active listening should be avoided. For example, a counselling session should not be interrupted by phones, note-taking, noises or visitors. If it is a group counselling session, group participants should be able to see and hear the counsellor. Likewise, the counsellor should be able to make eye contact with all in attendance.

**Self-awareness:** Active listening and counselling require that healthcare workers are aware of their own strengths and weaknesses, as well as their fears or anxiety about HIV, especially HIV in children. Healthcare workers who counsel should strive to be self-aware and to understand how others affect them and how they affect others.

## **Listening and Learning Skills**

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Good counsellors use verbal and non-verbal listening and learning skills to help caregivers through their process of exploration, understanding and action. Counsellors should:

- Use helpful non-verbal communication.
- Ask open-ended questions.
- Use responses and gestures that show interest.
- Reflect back what the individual says.
- Empathise — show an understanding of how she or he feels.
- Avoid words that sound judgemental.

For additional information, refer participants to Appendix 3-F for general guidance on talking with children and adolescents, Appendix 3-G: Specific Counselling Guidance for Children and Adolescents, and Appendix 3-H: Listening and Learning Skills Checklist.

### **Skill 1: Use Helpful Non-verbal Communication**

Non-verbal communication refers to all aspects of a message that are not conveyed by the literal meaning of words. It includes the impact of gestures, gaze, posture and expressions capable of substituting for words and conveying information. Non-verbal communication reflects attitude. Helpful non-verbal communication encourages the caregiver to feel that the counsellor is listening and cares about what is being said.

The acronym “ROLES”, as shown in Table 3.5: ROLES, can be used to help remind counsellors of behaviours that convey caring.

**Table 3.5: ROLES**

<b>Non-verbal behaviour that conveys caring</b>	
<b>R</b>	A <b>relaxed</b> and natural attitude with caregivers is important. Do not move around quickly or chat nervously.
<b>O</b>	<b>Open posture</b> should be adopted. Crossing one’s legs or arms can signal that you are critical of what the caregiver is saying or are not listening. Using an open posture shows that you are open to the caregiver and to what the caregiver is saying.
<b>L</b>	<b>Leaning forward</b> toward the caregiver at times is a natural sign of involvement.
<b>E</b>	Culturally appropriate <b>eye contact</b> should be maintained to communicate interest; never stare or glare at the caregiver.
<b>S</b>	<b>Sitting squarely</b> facing another person shows involvement. If for any reason this may be threatening, then sitting to the side is an option.

These physical behaviours convey respect and genuine caring. However, these are guidelines, and should be adapted based on cultural and social expectations.

### **Skill 2: Ask Open-ended Questions**

Asking questions helps identify, clarify and break down problems into smaller, more manageable parts. Open-ended questions begin with “*how*”, “*what*”, “*when*”, “*where*” or “*why*”. Open-ended questions encourage responses that lead to further discussion, whereas closed-ended questions tell a caregiver the answer that you expect; responses are usually one-word answers such as, “*Yes*” or “*No*”. Close-ended questions usually start with words like “*are you?*” “*did he?*” “*has she?*” “*does she?*”

Counsellors should try to avoid questions that have a yes or no answer. For example, instead of asking, “*Are you concerned about your baby’s HIV test results?*” you may ask, “*What concerns do you have about your baby’s HIV test?*” Or, instead of “*Are you breastfeeding?*” you may ask, “*How are you feeding your baby?*” Or “*Tell me more about what you are feeding your baby*”.

### **Skill 3: Use Gestures and Responses that Show Interest**

Another way to show that you are interested and want to encourage a caregiver to talk is to use gestures such as nodding and smiling, responses such as “*Mmm*”, or “*Aha*” and skills such as clarifying and summarising. These skills, also referred to as attending skills, demonstrate that the counsellor is actively listening to the caregiver. These behaviours invite

the caregiver to relax and talk about herself or himself and the problems being faced.

**Clarifying:** Clarifying prevents misunderstanding and helps sort out what has been said. For example, if the mother of a five-month-old says, *“My baby needs more than just breast milk at this age!”* the counsellor may ask *“Tell me more about why exclusive breastfeeding is a concern for you”*.

**Summarising:** Summarising pulls together themes of the counselling discussion so that the caregiver can see the whole picture. It also helps to ensure that the caregiver and the counsellor understand each other.

- Counsellors should review the important points of the discussion and highlight any decisions made.
- Counsellors can summarise key points at any time during the counselling session, not only at the end.

Summarising can offer support and encouragement to caregivers to help them carry out the decisions they have made related to their own and their children’s health and well-being.

#### **Skill 4: Reflect Back what the Caregiver Says**

“Reflecting back”, also referred to as paraphrasing, means repeating back what a caregiver has said to encourage her or him to say more. Try to say it in a slightly different way. For example, if a caregiver says, *“I’m not able to tell my partner about the baby’s HIV test result”*, the counsellor may reflect by saying, *“Talking to your partner about the baby’s result sounds like something that you are not comfortable doing right now”*. After the caregiver confirms that this is an accurate reflection of what she or he said, the counsellor can then say, *“Let’s talk about that some more”*.

Reflecting back shows that the counsellor is actively listening, encourages dialogue, and gives the counsellor an opportunity to understand the caregiver’s feelings in greater detail.

#### **Skill 5: Empathise — Show an Understanding of how she or he Feels**

Empathy develops when one person is able to comprehend (or understand) what another person is feeling. You may feel compassionate toward the person. Empathy, however, is not the same as sympathy; sympathy implies that you feel sorry for (pity) the other person.

Empathy is needed to understand how the caregiver feels and helps to encourage the caregiver to discuss issues further. For example if a caregiver says, *“I just can’t tell my partner that I have HIV!”*, the counsellor could respond by saying *“It sounds like you might be afraid of your partner’s reaction.”* Another example is if a visibly upset caregiver says:

*“My baby wants to feed very often and it makes me feel so tired!”*, the counsellor could respond by saying: *“It sounds like you’re tired a lot and this upsets you.”* If the counsellor responds with a factual question, for example, *“How often is he feeding? What else do you give him?”* the caregiver may not feel that the counsellor understands what she is going through.

Empathy is used to respond to a statement that is emotional. When empathising, the counsellor identifies and articulates the emotion behind a caregiver’s statement. Whereas, “Skill 4: Reflect Back what the Caregiver Says” is used to summarise conversation that is primarily factual.

### **Skill 6: Avoid Judging Words**

Judging words are words like: *right, wrong, well, badly, good, enough and properly*. If a counsellor uses these words when asking questions, the caregiver may feel that she or he is wrong, or that there is something wrong with the child.

Examples of what **NOT** to do:

#### **Examples of using judging words**

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Counsellor:	“Did you give the medicine to the baby correctly?”
Mother:	“Well — I think so.”
Counsellor:	“Didn’t you understand what I told you about giving the baby CTX?”
Mother:	“I don’t know, I thought so.”
Counsellor:	“Did you follow my recommendation to talk to your mother-in-law about HIV testing for your son?”
Mother:	“Well, yes, I tried to speak with her....”

Notice in these examples that the mother has not fully responded to the counsellor’s questions. Instead, the counsellor is making the mother uncomfortable. It is quite likely that the mother may provide the counsellor with a misleading response for fear of being judged.

Note that the caregiver may use judging words and this is acceptable (e.g. *“I wasn’t brave enough to talk to my husband. I’m so worthless.”*) When a caregiver does use judging words, do not correct her, but do not agree with her either. Instead, the response should aim to build her confidence through praise, e.g. *“I was impressed that you were able to talk with your sister and mother.”*

More helpful examples, using open-ended questions and avoiding judging words, could be as follows:

### **Examples of using non-judging words**

Counsellor:	“At about what time yesterday did you give medicine to the baby? How about the day before yesterday?”
Counsellor:	“What has been your experience with CTX?”
Counsellor:	“Can we go back to our discussion on disclosure? Who have you told about your HIV test result since your last visit?”

However, sometimes a counsellor needs to use “good” judging words to build a caregiver's confidence, and to recognise and praise the caregiver when she or he is doing the right thing.

### **Example of using judging words to build confidence**

Counsellor:	“You are a good mother.”
Counsellor:	“You are doing the right thing for your child.”

<b>Exercise 2: Listening and learning skills</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To practise active listening, self-awareness and listening and learning skills</li> </ul>
<b>Introduction</b>	<p><b>Part 1: Trainer Demonstration</b> Participants will first watch the trainer and another volunteer role play a counsellor and caregiver during a counselling session. Participants should observe the role plan, using Appendix 3-H to note the listening and learning skills observed.</p> <p><b>Part 2: Small Group Work</b></p> <ul style="list-style-type: none"> <li>▪ Participants will then break into groups of three. The groups should identify a “counsellor”, “caregiver” and an “observer” for the first role play.</li> <li>▪ After about five minutes of role playing the first scenario, stop the exercise and ask the “observer” to provide feedback on each of the skills and techniques observed using the Listening and Learning Skills Checklist.</li> <li>▪ Repeat this exercise, using the other two scenarios, until everyone has had an opportunity to practise each role.</li> </ul> <p><b>Part 3: Large Group Discussion</b> Participants will then return to the larger group to debrief the small group work.</p>

## Exercise 2: Listening and learning skills, Scenarios for role plays

### Role play 1:

Isaac brings his 14-month-old nephew to the clinic. Isaac is helping out while the baby's father is working far away. Isaac is concerned that the child does not seem to be growing and he has very little energy. He thinks something is wrong.

### Role play 2:

Ethel brings her daughter to the clinic for an Under-Five visit. When asked, she said she is worried because her daughter, who is 18 months old, is not walking or talking yet like the other children in the village.

### Role play 3:

Nora's eight-month-old daughter is in the hospital. Febe has pneumonia. Nora is worried because this is the second time Febe has been sick enough to be hospitalised.

## Common Counselling Mistakes

The principles of listening and learning are easy to learn but difficult to apply. Some common mistakes include:

- Not allowing enough time for counselling, making it hard for the caregiver to take in all the information and react.
- Conducting counselling in a non-private space, such as in a corridor or waiting area or allowing interruptions during the counselling session.
- Controlling the discussion, instead of encouraging the caregiver's open expression of feelings and needs.
- Judging the caregiver — making statements that show that the caregiver does not meet the counsellor's standards.
- Preaching to a caregiver — telling caregivers how they should behave or lead their lives, for example, saying: *"you never should have trusted that guy, now you have created a big problem for yourself"*.
- Labelling a caregiver instead of finding out their individual motivations, fears or anxieties.
- Reassuring a caregiver without even knowing her or his health status — for example, telling a caregiver, *"you have nothing to worry about"*.
- Not accepting the caregiver's feelings — saying *"you shouldn't be upset about that"*.
- Advising, before the caregiver has collected enough information or taken enough time to arrive at a personal solution.
- Interrogating — asking accusatory questions. Questions that start with *"why...?"* can sound accusatory, though the tone is important, as *"why"* questions may also be a way of getting an open-ended response.
- Encouraging dependence — increasing the caregiver's need for the counsellor's presence and guidance.
- Persuading or coaxing — trying to get the caregiver to accept new behaviour by flattery or fakery. *"I know you are a good mom and you will have your baby tested like I have told you."*



## **Session 3.3      Overview of IYCF Counselling**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Discuss the steps involved in IYCF counselling.
- Understand the healthcare worker's role in supporting mothers to make the safest IYCF decisions for their child.

### **IYCF Counselling for Mothers Who are Living with HIV**

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IYCF counselling will include the following:

- Breastfeeding — the advantages and disadvantages of breastfeeding, proper positioning and attachment.
- Risk of HIV transmission through breastfeeding and how to reduce these risks (if the mother meets the conditions for safe formula feeding, discuss the advantages and disadvantages of formula feeding).
- HIV-related care, including ART or ARV prophylaxis, to reduce risk of MTCT (and for the mother's health, if she is eligible for ART).
- Demonstration and/or observation and support as needed.

Women will need ongoing support to maximise success and ensure proper growth and development of the child. Healthcare workers have a responsibility to protect, promote and support safe and appropriate feeding practices. They should support women's IYCF decisions and provide continued support during the first two years of a child's life.

IYCF guidelines for HIV-exposed children were updated in 2009/2010 further to recent research findings on the risks and benefits of breastfeeding, particularly in comparison to formula feeding and mixed feeding. As a result of the recently updated guidelines, women may receive conflicting advice and feel confused about the recommendations. It is the role of the healthcare worker to explain the new guidelines to women with HIV, their families and to community leaders.

### **Children Known to be HIV-infected**

With the implementation of paediatric PITC, mothers will need counselling to support them to safely feed their newly identified HIV-exposed or -infected children. When a child is known to be HIV-infected, counselling may be particularly important for the following reasons:

- HIV-infected children require more food in comparison to children who are not HIV-infected; counselling can prevent malnutrition.
- HIV-related infections, such as oral candidiasis, often make eating painful; counselling will be needed to assist caregivers to learn how to deal with conditions that can affect appetite and eating habits.

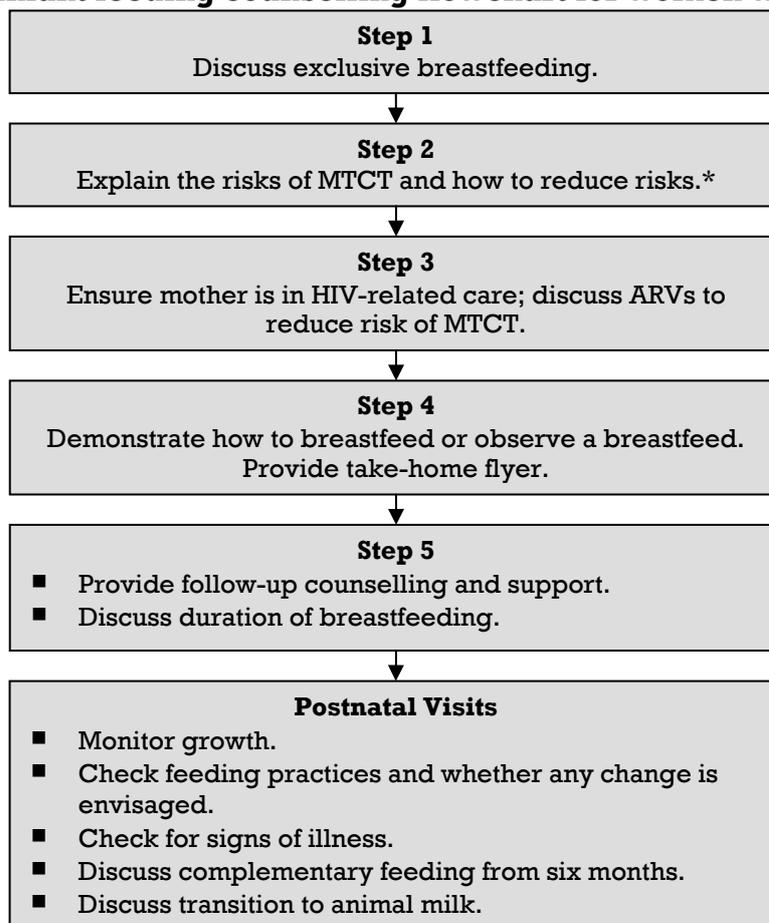
The flowchart in Figure 3.2 illustrates the steps for counselling mothers living with HIV about IYCF. Below are instructions for how to use the flowchart.

**Table 3.6: IYCF counselling for women with HIV**

<b>If this is the mother's first feeding counselling session and...</b>
<b>She is pregnant or has just delivered:</b>
<ul style="list-style-type: none"> <li>▪ Follow Steps 1–4.</li> </ul>
<b>She already has a child:</b>
<ul style="list-style-type: none"> <li>▪ Follow Steps 1–4.</li> </ul>
<b>If the mother has already been counselled but has not yet learned how to breastfeed and....</b>
<b>She is pregnant or has just delivered:</b>
<ul style="list-style-type: none"> <li>▪ Do step 4 only.</li> </ul>
<b>She already has a child:</b>
<ul style="list-style-type: none"> <li>▪ Begin with Step 4, and then continue with Step 5.</li> </ul>
<b>If this is a follow-up visit...</b>
<ul style="list-style-type: none"> <li>▪ Begin with Step 5.</li> </ul>

Further information about each of these steps is in Appendix 3-I: Infant Feeding Counselling Session.

**Figure 3.2: Infant feeding counselling flowchart for women with HIV**



\* If mother meets conditions for safe formula feeding, discuss; help the mother choose between breastfeeding and formula feeding. If she wants to formula feed and it is safe for her and her infant, provide her with opportunity to practice hygienic and correct preparation of infant formula and cup feeding.

## **IYCF and Paediatric HIV Testing and Counselling**

Children breastfed by a mother living with HIV continue to be at risk for HIV infection; therefore healthcare workers must provide ongoing counselling on safer IYCF practices and on re-testing of the child after breastfeeding has stopped completely.

The IYCF messages given to mothers in the HIV testing pre- and post-test sessions will depend, in part, on the child's HIV test results. HIV testing and counselling will be discussed further in Modules 5 and 6, but the following are some of the key messages:

- If a child is diagnosed as HIV antibody positive (i.e. is HIV-exposed), then her/his mother is HIV-infected. If the mother is diagnosed with HIV, she will need counselling, support and immediate referral for care

and assessment of eligibility for ART (CD4 cell count and clinical status).

- The mother should be provided with information about ARV prophylaxis. If a mother is breastfeeding and eligible for (or taking) ART, ARV prophylaxis is indicated for the child for six weeks. If the mother is not eligible for ART, the child should be provided with daily prophylaxis from birth until one week after complete cessation of breastfeeding.
- Provide the mother with support for accurate dosing and adherence.
- IYCF should be provided to all mothers, regardless of HIV test result. For women living with HIV, IYCF counselling should also be discussed during the post-test counselling session. Safer IYCF counselling is further discussed in Appendix 3-I.

### Exercise 3: IYCF counselling and support

<b>Purpose</b>	<ul style="list-style-type: none"> <li>■ To practise applying the national guidelines on IYCF in the context of HIV</li> </ul>
<b>Introduction</b>	<p><b>Answer case study questions</b></p> <p>Participants will break into four small groups, each of the small groups will be assigned one of the case studies that appears below. Small groups should take about 20 minutes to answer the questions in the case study, at least one participant should take notes. Participants may use the flowchart and Appendix 3-I as references.</p> <p><b>Role play</b></p> <p>Each of the small groups should identify someone to play the role of the caregiver and the role of the healthcare worker; the remaining small group members are observers. The caregiver and healthcare worker should take about 10 minutes to role play the case study. The healthcare worker should use the notes compiled during the small group discussion as well as the “Listening and Learning” skills learned during the last session.</p> <p>The observers should note:</p> <ul style="list-style-type: none"> <li>■ If they would like to amend any of the answers to their role play based on how the role play goes.</li> <li>■ Use of “Listening and Learning” skills using “Appendix 3-H Listening and Learning Skills Checklist”.</li> </ul> <p>Once the role play has been completed small groups should take about 10 minutes to:</p> <ul style="list-style-type: none"> <li>■ Discuss if their answers to the role play questions should be amended based on the role play.</li> <li>■ Provide feedback on the healthcare worker’s use of “Listening and Learning” skills.</li> </ul> <p>Finally, the trainer will reconvene the large group and</p>

	<p>facilitate a discussion based on the small group discussions and role plays.</p> <p>Note that there is more reference information about IYCF in Appendices 3-B, 3-C, 3-D, 3-E and 3-I of this module.</p>
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### Exercise 3: IYCF counselling and support, Case studies

#### Case Study 1:

Mwenzi is living with HIV and is not eligible for ART. She is breastfeeding her six-month-old infant, who is receiving ARV prophylaxis. She does not have a regular source of clean water. In addition, she has not disclosed her status to her mother-in-law, who lives in the home.

- *What questions would you ask Mwenzi?*
- *What recommendations would you give Mwenzi on reducing the risk of MTCT to her baby?*

#### Case Study 2:

Lonah is living with HIV and is receiving ART. She has been breastfeeding her 5-month-old baby boy. She reports that he is frequently experiencing diarrhoea, and when you talk with Lonah, you learn that her mother-in-law gives the baby porridge and water.

- *What questions would you ask Lonah?*
- *What advice would you give Lonah on safer infant feeding?*
- *What questions would you ask Lonah to ensure that she has been prescribed ARVs and that she is taking them exactly as prescribed to prevent MTCT?*

#### Case Study 3:

Saliya, who is newly diagnosed with HIV and is not on ART, has been breastfeeding her baby for six months and would like advice on reducing the baby's risk of HIV. She heard that she should stop breastfeeding. She reports that she can afford to buy formula for the baby.

- *What questions would you ask Saliya?*
- *What advice would you give Saliya in reference to feeding her child?*

#### Case Study 4:

Rosemary is newly diagnosed with HIV and is not on ART. She has a 6-month-old baby girl who is hospitalised; her daughter was diagnosed as HIV-infected. Rosemary has been breastfeeding.

- *What questions would you ask Rosemary?*
- *What advice would you give Rosemary to help her take care of herself, including her own HIV infection?*
- *What advice would you give Rosemary on feeding her baby daughter?*



### Module 3: Key Points

- There are ways to make breastfeeding safer and reduce the risk of MTCT.
- Women who are HIV-infected and their HIV-exposed infants should be provided with the HIV-related care they need. Women who are eligible should receive lifelong ART. Maternal ART reduces the risk of HIV transmission during pregnancy, labour, delivery and during the breastfeeding period.
- All HIV-exposed infants should receive ARV prophylaxis to reduce the risk of MTCT of HIV.
  - **If mother is on ART:** Provide the infant with daily ARV prophylaxis from birth to six weeks of age.
  - **If mother is not on ART and breastfeeding:** Provide the infant with daily ARV prophylaxis from birth until one week after complete cessation of all breastfeeding.
  - **If mother is not on ART and formula feeding:** Provide the infant with daily ARV prophylaxis from birth to six weeks of age.
- All women with HIV should breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding to 12 months of age. At 12 months:
  - **If the child is either HIV uninfected or of unknown HIV status** — breastfeeding should stop gradually (over a period of one month) if a nutritionally adequate and safe diet without breast milk can be provided.
  - **If the child is known to be HIV-infected** — mothers are strongly encouraged to continue breastfeeding as per the recommendations for the general population, that is up to two years or beyond.
- Women living with HIV may consider formula feeding if they meet the conditions outlined above.
- Listening and learning skills are the framework for paediatric PITC. Listening and learning skills are the foundation for good communication: to understand how the caregiver feels, provide information, answer questions and to encourage the caregiver to participate in decision-making and engage in her or his child's care.

## **Appendix 3-A Baby-friendly Hospital Initiative (BFHI)**

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### **Ten steps to successful breastfeeding<sup>3</sup>**

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#### **Step 1: Have a written breastfeeding policy that is routinely communicated to all healthcare staff.**

Why have a policy?

- It requires a course of action and provides guidance.
- It helps establish consistent care for mothers and babies.

How should it be presented?

- It should be written in the most commonly used language.
- It should be available to all staff caring for mothers and babies.
- It should be displayed in areas where mothers and babies are cared for.

#### **Step 2: Train all healthcare staff in the skills necessary to implement this policy.**

Areas of knowledge to emphasise:

- Explain the advantages of breastfeeding.
- Explain the risks of replacement feeding and mixed feeding.
- Explain the mechanisms of lactation and suckling.
- Show how to help mothers initiate and sustain breastfeeding.
- Demonstrate how to breastfeed.
- Explain how to resolve breastfeeding difficulties.
- Describe hospital/clinic breastfeeding policies and practices.

#### **Step 3: Inform all pregnant women about the benefits and management of breastfeeding.**

What should antenatal education include?

- It should emphasise the importance of exclusive breastfeeding.
- It should explain the risks of artificial feeding and use of bottles and pacifiers, soothers, teats, nipples.
- It should *not* include group education on formula preparation.

#### **Step 4: Help mothers initiate breastfeeding within half an hour of birth.**

Why should we initiate early feeding for the newborn?

- It increases the overall duration of breastfeeding.

- It allows skin-to-skin contact for warmth and bonding of the infant with the mother.
- It provides colostrum which is rich in protective antibodies.
- It takes advantage of the first hour of alertness.
- The infant learns to suckle more effectively.
- Delayed breastfeeding initiation is associated with greater neonatal mortality.

### **Step 5: Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.**

How does supply and demand in breastfeeding work?

- Milk removal stimulates increased production. The more a child breastfeeds, the more milk is produced.
- The amount of breast milk removed at each feed determines the rate at which milk will be produced in the next few hours.
- Milk removal must be continued during separation to maintain supply.

### **Step 6: Give newborn infants no food or drink other than breast milk unless medically indicated.**

What is the impact of giving the infant other foods and liquids?

- It decreases the frequency or efficiency of suckling.
- It decreases the amount of milk removed from the breast.
- It delays milk production or reduces the milk supply from the breast.
- Some infants have difficulty attaching to the breast if they receive formula by bottle.

Medically indicated exceptions to breastfeeding are instances in which the infant may require other fluids or food in addition to, or in place of, breast milk. Medically indicated exceptions includes the provision of medicines, including ARVs, that are prescribed by a healthcare worker; it may also include formula feeding by a mother with HIV whose home circumstances meet the conditions needed to safely formula feed. The feeding programme of these babies should be determined on an individual basis.

### **Step 7: Practise rooming in — that is, allow mothers and infants to remain together 24 hours a day. This allows unlimited contact between mother and infant.**

Why should babies room in?

- It reduces costs.
- It requires minimum equipment.
- It requires no additional personnel.
- It reduces infection.
- It helps establish and maintain breastfeeding.
- It facilitates the bonding process.

## **Step 8: Encourage breastfeeding on demand.**

What is breastfeeding on demand?

- Breastfeeding on demand means breastfeeding whenever the infant wants, with no restrictions on the length or frequency of breastfeeds.

Why on-demand breastfeeding?

- It minimises weight loss in the first few days of life.
- Breast milk flow is established sooner.
- The volume of milk intake by day three is greater.
- It lowers the incidence of jaundice in the newborn.

## **Step 9: Give no artificial teats or pacifiers (also called dummies and soothers) to breastfeeding infants.**

A baby suckles differently on an artificial nipple than on the breast. Use of pacifiers when breastfeeding is being established can cause some babies to experience nipple confusion or to prefer the artificial nipple.

Prolonged use of pacifiers increases risk of middle ear infections which is associated with a higher risk of vomiting, fever, diarrhoea, and colic.

Long-term pacifier use can lead to dental problems and prevent babies from babbling — an important step in learning to talk.

What are some other ways to sooth a baby?

- Encourage more frequent, effective breastfeeding
- Encourage skin-to-skin cuddling, rocking and carrying

## **Step 10: Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.**

Why is breastfeeding support important?

- The key to best breastfeeding practices is continued day-to-day support for the breastfeeding mother within her home and community.

What do we mean by breastfeeding support? Examples:

- Early postnatal or clinical check-up
- Home visits by community health workers
- Telephone calls
- Peer counselling programmes
- Mother support groups — help set up new groups and establish a working relationship with existing groups
- Family support systems

## Appendix 3-B Steps to Express and Heat-treat Breast Milk

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### Why Express Breast Milk?

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Mothers with HIV may consider expressing and heat-treating breast milk in the following circumstances:

- When her infant is born with low birth weight or is otherwise ill and unable to breastfeed
- When the mother is unwell and temporarily unable to breastfeed
- When the mother has a breast condition such as mastitis
- When the mother is weaning and transitioning the child to another form of milk
- When ARVs are temporarily not available

### Getting Ready

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Keep the utensils to be used to express milk and feed the baby as clean as possible. Keep work surfaces clean as well; if possible, work on a table mat that can be cleaned each time.

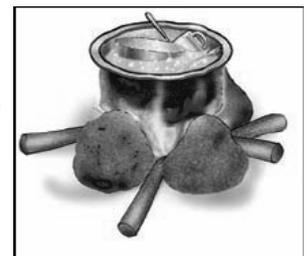
#### 1. Wash

- Wash or soak utensils with cold water immediately after use to remove milk before it dries. Then wash with hot soapy water.
- Rinse thoroughly in water from a safe and clean source.



#### 2. Sterilise

- **Boiling:**
  - Put washed/rinsed utensils in a large pan. Fill the pan with water to cover all the utensils, ensure there are no trapped air bubbles.
  - Cover the pan with a lid and bring to a rolling boil (when the water has large bubbles). Boil water vigorously for 1–2 seconds.
  - Keep the pan covered until the utensils are needed.
- Other ways to sterilise: If using a home steriliser (for example, electric or microwave steam steriliser or chemical steriliser — such as Milton or another bleach solution), follow manufacturer's instructions.



#### 3. Store

- Remove utensils from the pan or steriliser just before they are to be used.
- If possible, use sterilised kitchen tongs for handling sterilised utensils.
- If utensils are removed from the pan or steriliser and not used immediately, they should be covered and stored in a clean place.

### **Hand washing**

- Always wash hands before removing utensils from a steriliser, before expressing breast milk and before feeding a baby/child. Wash hands thoroughly:
  - Wash with soap or ash and with plenty of clean running or poured water.
  - Wash the front and back of hands, between fingers and under nails.
  - Allow hands to dry in the air or dry them with a clean cloth. It is best not to dry hand on clothing or a shared towel.

## **How to Express Breast Milk**

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- Get a sterilised container with a wide neck and a cover.
- Wash hands with soap and clean water (see box above).
- Sit or stand in a comfortable position in a quiet, private place. Drink something warm and try to relax as much as possible.
- Lightly massage the breasts and gently pull or roll the nipples. Some women find it helpful to apply a warm compress to the breasts.
- The mother should put her thumb on the breast above the nipple and areola (the dark area around the nipple) and her first finger below the nipple and areola. She should support her breast with her other fingers.
- The mother should gently press her thumb and first finger together. Press and release, press and release, to start the milk flowing. This should not hurt. If it does, then she is not doing it right.
- Press the same way on the sides of the areola to empty all parts of the breast.
- Advise the mother that she should not squeeze the nipple or rub her fingers along the skin. Her fingers should roll over the breast.
- Express one breast for 3-5 minutes until the flow slows then change to the other breast. Then do both breasts again.
- Change hands when the one hand gets tired. She can use either hand for either breast.
- It can take 10–15 minutes or longer to express all of the milk.

## **Storing Expressed Milk**

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- Store breast milk in a clean, sterilised, covered container in a cool place until it is needed.
- Fresh breast milk can be stored up to eight hours at room temperature or up to 24 hours in a refrigerator, so long as the refrigerator is never higher than 5°C.

## Feeding Baby

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- Always feed the baby using a clean, sterilised open cup. Avoid using bottles and teats — they are difficult to clean, and may make the baby sick (see Appendix 3-C).

## Steps for Heat-treating Breast Milk<sup>4</sup>

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Heat-treating expressed breast milk destroys the HIV in breast milk while retaining its nutrients and protective agents. Heat-treating expressed breast milk removes the risk of HIV transmission.



### Before heat-treating the milk, gather the following things:

- Clean containers with wide necks and covers, such as cups or jars, to store the milk
- A small cup for feeding the baby
- Soap and clean water to wash and rinse equipment
- A pan to sterilise cups and containers
- A small pan to heat the milk
- Fuel to sterilise cups and containers and to heat the milk
- A large container of cool water (optional — for cooling milk)

Always use washed and sterilised utensils to express, heat-treat, and feed breast milk.

### Follow these steps to heat-treat and then store milk:

- Put breast milk in a pan. Heat enough expressed milk for one feed. The amount of milk should be between 50 ml and 150 ml. If there is more milk, it may be divided into two jars, so that it heats and then cools more quickly. The other advantage of smaller jars is that there is less waste — the baby is fed the milk in the second jar only if he is still hungry. Heated breast milk must be discarded after two hours if not used (unlike unheated breast milk, which lasts eight hours). Once heated, breast milk **CANNOT** be refrigerated for later use.
- Heat breast milk **to the boiling point**.
- Pour milk into clean, sterilised feeding cup and allow to cool. Cool by placing the cup in a small container of cool water or by letting the milk stand until it cools.
- If the heated milk is not used immediately, store it in a clean, covered container in a cool place and use it within **two hours**.
- Feed the infant using a cup. Throw away any unused milk.

## **Appendix 3-C Safety and Formula Feeding**

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### **Water Safety**

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#### **Water Must be Boiled before Using**

- Boil water until big bubbles rise to the surface — also referred to as a rolling boil — for 1–2 seconds before use. This will kill most harmful microorganisms.

#### **Use Water as soon as Possible**

- Pour the appropriate amount of boiled water into a cleaned and sterilised feeding cup. Water should be used as soon as possible; if left more than 30 minutes it must be re-boiled.
- Some families keep water hot in a thermos flask. This is safe for water if the thermos flask has been properly washed and if the water is still very hot (70°C or higher) when used to reconstitute infant formula. It is not safe to use water stored in a thermos flask for more than a few hours, as the water will have cooled below 70°C (the exact amount of time water can be safely stored in a thermos flask depends on the quality of the thermos, quantity of water in the thermos and the temperature of the air and thermos). If in doubt, it is always safest to boil the water fresh for each feed.
- It is **not** safe to keep warm milk or formula in a thermos flask.

### **Hygienic Preparation of Formula Feeds**

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#### **Infant Formula is not Sterile**

Infant formula is NOT sterile. Infant formula can pose a risk to infants unless prepared and handled correctly. The equipment used to feed infants and for preparing feeds must be thoroughly cleaned and sterilised before use.

#### **Hand Washing**

- Always wash hands: after using the toilet, after cleaning the infant's bottom, after disposing of children's stools and after washing nappies/diapers and soiled cloths, after handling foods which may be contaminated (e.g., raw meat and poultry products) and after touching animals.
- Always wash hands: before preparing or serving food, before eating and before feeding children.
- It is important to wash hands thoroughly:

- Wash with soap or ash and with plenty of clean running or poured water.
- Wash the front, back, between the fingers and under the nails.

Let hands dry in the air or dry them with a clean cloth.

## Cleaning Utensils

Keep both the utensils (e.g. cups\* and spoons) and the surface on which feeds are prepared as clean as possible. Use a clean table or mat that can be cleaned each time it is used.

- **Wash** utensils with cold water immediately after use to remove milk before it dries, and then wash with hot soapy water.
- **Rinse** thoroughly in water from a safe source.
- **Sterilise**, by boiling:
  - Fill a large pan with water and completely submerge all washed feeding and preparation equipment, ensuring there are no trapped air bubbles.
  - Cover the pan with a lid and bring to a rolling boil, making sure the pan does not boil dry.
  - Keep the pan covered until the feeding and preparation equipment is needed.
- **Sterilise**, by other methods:
  - If using a commercial home steriliser (e.g. electric or microwave steam steriliser, or chemical steriliser — such as Milton or another bleach solution), follow manufacturer's instructions.
- **Storage:**
  - It is best to remove feeding and preparation equipment from the steriliser or pan just before it is to be used.
  - Hands should be washed thoroughly with soap and water before removing feeding and preparation equipment from a steriliser or pan. The use of sterilised kitchen tongs for handling sterilised feeding and preparation equipment is recommended where possible.
  - If equipment is removed from the steriliser and not used immediately, it should be covered and stored in a clean place.

\* Remember it is better to use a cup to feed an infant, rather than a bottle.

## Milk and Food Storage

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- Fresh milk can be kept in a clean, covered, container at room temperature for a few hours. Exactly how long depends on the condition of the milk when bought and the room temperature. However, for an infant, milk must be boiled and then used within two hours.
- If there is no refrigerator, the mother must make feeds freshly each time. When a feed has been prepared with formula or dried milk

(appropriate only for infants older than six months), it should be used within two hours, like fresh milk.

- If the infant does not finish the feed, the mother should give it to an older child or use it in cooking.
- Some families keep water cool in a pottery jar, which allows evaporation of water from the surface. It is not safe to store milk in pottery jars.
- Never store warm milk (or reconstituted infant formula) in a thermos flask. Bacteria grow when milk is kept warm.

<b>Guidelines on Food Storage and Hygiene</b>	
<b>Keep clean</b>	<ul style="list-style-type: none"> <li>■ Wash hands with soap and water (washing hands, especially with soap or a rubbing agent such as ash, helps remove germs and contributes to prevention of disease transmission) before preparing formula or food, before feeding others, and after going to the toilet.</li> <li>■ Wash cups and bowls used by children thoroughly with hot soapy water or boil it.</li> <li>■ Keep food preparation surfaces clean using water and soap or detergent to clean them every day.</li> </ul>
<b>Use clean water and wash raw materials</b>	<ul style="list-style-type: none"> <li>■ Boil water vigorously for 1–2 seconds. (Bringing water to a rolling boil is the most effective way to kill disease-causing germs, even at high altitudes. Let the hot water cool down on its own without adding ice. If the water is clear, and has been boiled, no other treatment is needed.)</li> <li>■ Wash fruits and vegetables, especially if eaten raw.</li> </ul>
<b>Separate raw and cooked foods</b>	<ul style="list-style-type: none"> <li>■ Avoid contact between raw and cooked foods.</li> <li>■ Use separate utensils and storage containers for raw foods.</li> </ul>
<b>Cook thoroughly</b>	<ul style="list-style-type: none"> <li>■ Especially meat, poultry, eggs and seafood. For meat and poultry, make sure juices are clear not pink.</li> <li>■ Reheat cooked food thoroughly. Bring soups and stews to boiling point. Stir while re-heating.</li> </ul>
<b>Keep formula and food at safe temperatures</b>	<ul style="list-style-type: none"> <li>■ Refrigerate prepared formula and all cooked and perishable foods promptly (preferably below 5 °C).</li> <li>■ Give unfinished formula to an older child instead of keeping it until the next feed.</li> <li>■ Do not leave cooked food at room temperature for more than two hours.</li> <li>■ Do not store food too long, even in a refrigerator.</li> <li>■ Do not thaw frozen food at room temperature.</li> <li>■ Food for infants and young children should ideally be freshly prepared and not stored at all after cooking.</li> </ul>

## **Food Storage**

- Food should be kept tightly covered to stop insects and dirt getting into it.
- Food can be kept longer when it is in a dry form, such as milk powder, sugar, bread and biscuits, than when it is in liquid or semi-liquid form.
- Fresh fruits and vegetables keep for several days if they are covered, especially if they have thick peel, like bananas.
- Do not use food beyond its expiration date.
- Protect kitchen areas and food from insects, pests and other animals.

## **Bottle Feeding**

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Advise the mother who is determined to bottle feed on the advantages of cup feeding and disadvantages of bottle feeding. Strongly encourage cup feeding. But if the mother insists on bottle feeding, teach her how to do so safely:

- Bottles must be washed, rinsed, sterilised and stored similar to cups (see above). When washing baby bottles, note that:
  - Bottles and teats also need to be scrubbed inside with a bottle brush and hot soapy water. In addition, teats need to be turned inside out and scrubbed using salt or abrasive.
  - If possible, use a soft brush to reach all the corners.
- When storing bottles, they may be fully assembled with a cover to prevent the inside of the sterilised bottle and the inside and outside of the teat from becoming contaminated.

## **Tips for Bottle Feeding**

- Listen and observe the baby. If a lot of noise while drinking is heard, she or he may be taking in too much air. To help the baby swallow less air, hold her or him at a 45-degree angle. Also, take care to tilt the bottle so that the nipple and neck are always filled with formula.
- Never feed a baby while she or he is sleeping or lying down.

## Appendix 3-D Preparing Infant Formula

When a caregiver makes infant formula, it is very important that the milk and water are mixed in the correct amounts *consistently*. Small mistakes in the feed preparation may not have an immediate effect, but may make an infant ill or malnourished if they are repeated over time.

Each brand of infant formula is prepared differently. This section provides general instructions for preparing formula. If possible, the caregiver should bring the cups and utensils that she expects to use to feed the baby to the counselling session with the healthcare worker. Mark the cup to show how much water is needed. Ask her to prepare a feed; the healthcare worker should guide the caregiver so she knows what to do when she goes home. Infant formula is not a sterile product; reconstituted infant formula provides ideal conditions for the growth of harmful bacteria. It is best to make infant formula fresh for each feed and to use it immediately. The steps below outline the safest way to prepare individual feeds of infant formula for immediate consumption.

Infant formula should be given from an open cup, not a bottle or a cup with a teat.

general instructions for preparing formula. If possible, the caregiver should bring the cups and utensils that she expects to use to feed the baby to the counselling session with the healthcare worker. Mark the cup to show

how much water is needed. Ask her to prepare a feed; the healthcare worker should guide the caregiver so she knows what to do when she goes home. Infant formula is not a sterile product; reconstituted infant formula provides ideal conditions for the growth of harmful bacteria. It is best to make infant formula fresh for each feed and to use it immediately. The steps below outline the safest way to prepare individual feeds of infant formula for immediate consumption.

1. Keep working surface clean; if possible, work on a table mat that can be cleaned each time. Clean the surface or table mat with warm soapy water and rinse. If available, disinfect the surface with bleach (see box to right).
2. Wash hands with soap and clean water, and dry using a clean cloth or a single-use napkin.
3. Ensure all utensils are cleaned, rinsed and sterilised (see Appendix 3-C).
4. Boil a sufficient volume of water from a safe source. If using an automatic kettle, wait until the kettle switches off; otherwise make sure that the water comes to a rolling boil for 1–2 seconds.

### Disinfecting with bleach

If bleach is available, clean clinic and home surfaces (countertops, sinks, floors, baths, toilets, etc.) with a 0.5% chlorine bleach solution. To make a 0.5% bleach solution:

- If using 3.5% bleach, mix six parts\* water to one part bleach
- If using 5% bleach, mix nine parts\* water to one part bleach
- If using 10% bleach, use 19 parts\* water to one part bleach

\*"Part" is anything from a teaspoon to a cup or litre.

Note: bottled water is not sterile and must be boiled before use.

Microwaves should never be used in the preparation of infant formula as uneven heating may result in "hot spots" that can scald the infant's mouth. For more information, see "Water safety" in Appendix 3-C, "Safety and Formula Feeding".

5. Pour the appropriate amount of boiled water into a cleaned and sterilised feeding cup or bottle. Water should be used as soon as possible; if left more than 30 minutes it must be re-boiled.

6. Add to the water the exact amount of formula as instructed on the label. Adding more or less powder than instructed could make infants ill.
  - If using feeding cups: mix thoroughly by stirring with a cleaned and sterilised spoon, taking care to avoid scalds.
  - If using bottles: assemble the cleaned and sterilised parts of the bottle according to the manufacturer's instructions. Shake or swirl gently until the contents are mixed thoroughly, taking care to avoid scalds.
7. Cool reconstituted infant formula to feeding temperature. If the bottle is cooled using cold water and/or ice, ensure that the water and/or ice does not touch the inside of the cup or teat. It is essential that the temperature is checked before feeding to avoid scalding the infant's mouth.
8. Discard any feed that has not been consumed within two hours.

## **Preparing Feeding in Advance**

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It is best to make infant formula fresh for each feed and to consume immediately. For practical reasons, however, feeds may need to be prepared in advance. The steps below outline the safest way to prepare and store feeds for later use. If refrigeration is not available, feeds cannot safely be prepared in advance for later use.

- Prepare infant formula as described above. If using feeding cups, a batch of formula should be prepared in a clean, sterile jar that is no larger than one litre, with a lid. The prepared infant formula can be refrigerated and dispensed into cups as needed.
- Place cooled feeds in a refrigerator. The temperature of the refrigerator must be no higher than 5 °C. If the refrigerator temperature is higher than 5 °C, it cannot be used to store reconstituted infant formula.
- Feeds can be stored in the refrigerator for up to 24 hours.

## **Re-warming Stored Feeds**

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- There is no health reason to re-warm milk that has been prepared in advance and stored in the refrigerator, but the baby may prefer it.
- Remove stored feed from the refrigerator just before it is needed.
- Re-warm for no more than 15 minutes. If re-warming in hot water, ensure that only boiled water is allowed to touch the inside of the cup (or teat if using a bottle).
- To ensure that the feed heats evenly, periodically swirl the cup or shake the covered jar or container.
- Microwave ovens should never be used to re-warm a feed as uneven heating may result in "hot spots" that can scald the infant's mouth.
- Check feeding temperature to avoid scalding the infant's mouth. The contents should be cool, room temperature, or warm, never hot.
- Discard any re-warmed feed that has not been consumed within two hours.

## **Transporting Feeds**

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- Because of the potential for growth of harmful bacteria during transport, feeds (prepared as described above) should first be cooled to no more than 5°C in a refrigerator and then transported.
- Do not remove feed from the refrigerator until immediately before transporting.
- Transport feed in a cool bag with ice packs.
- Feeds transported in a cool bag should be used within two hours as cool bags do not always keep foods adequately chilled.
- Re-warm at the destination.
- If the destination is reached within two hours, feeds transported in a cool bag can be placed in a refrigerator and held for up to 24 hours from the time of preparation.
- Alternatively, if going out for the day, individual portions of infant formula (still in powdered form) can be transported in washed and sterilised containers. At the destination, previously boiled hot water (no less than 70°C) can be used to prepare the feed.

## Appendix 3-E Advantages of Cup Feeding<sup>5,6,7</sup>

**Formula and expressed breast milk should be fed to baby using a cup.**

Healthcare workers should explain to mothers and families that cup feeding is preferable for the following reasons:

- Cups are safer, as they are easier to clean with soap and water than bottles.
- Cups are less likely than bottles to be carried around for a long time (which gives bacteria the opportunity to multiply).
- Cup feeding requires caregiver to hold and have more contact with the infant and provides more psychosocial stimulation than bottle feeding.
- Cup feeding is better than feeding with a cup and spoon because spoon feeding takes longer and the caregiver may stop before the infant has had enough.

**Feeding bottles are not necessary and in most situations they should not be used.** Using feeding bottles and artificial teats should be actively discouraged because:

- Bottle feeding increases the infant's risk of diarrhoea, dental disease and ear infections.
- Bottle feeding increases the risk that the infant will receive inadequate stimulation and attention during feedings.
- Bottles and “teats” need to be thoroughly cleaned with a brush and then sterilised by boiling; this takes time and fuel.
- Bottles and “teats” cost more than cups and are less readily available.

### How to Feed an Infant with a Cup

- Instruct the mother to hold the infant sitting upright or semi-upright on her lap.
- Hold the cup of milk to the infant's lips.
- Tip the cup so that the milk just reaches the infant's lips and it rests lightly on the infant's lower lip.
- The infant will become alert and open its mouth and eyes.\*
- **Do not pour** the milk into the infant's mouth. Hold the cup to the infant's lips and let the infant take it.
- When the infant has had enough, she or he will close its mouth. If the infant has not taken the calculated amount, it may take more next time or the mother needs to feed more often.
- Measure the infant's intake over a 24-hour period, not just at each feed, to calculate whether the infant is getting the right amount of milk.



\*Low-birth weight infants will start to take milk with the tongue. A full-term or older infant will suck the milk, spilling some.

Step	Reason for the step
<p><b>1. Get ready</b></p> <ul style="list-style-type: none"> <li>▪ Wash hands with soap and water.</li> <li>▪ Hold the infant close and comfortable.</li> <li>▪ Pour small amount of formula in infant's cup.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Any form of dirt or germs may give the infant diarrhoea.</li> <li>▪ Close touching fosters bonding.</li> <li>▪ Helps prevent spilling and contamination if infant doesn't finish the entire feed.</li> </ul>
<p><b>2. Feed the infant</b></p> <ul style="list-style-type: none"> <li>▪ Put the cup to infant's lips. Do not tip the cup too much.</li> <li>▪ Let the infant lap or suck the milk at her or his own rate.</li> <li>▪ Keep the cup to infant's lips until she or he is ready to drink again.</li> <li>▪ Encourage infant to continue feeding as long as possible or until feed is finished.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Too much formula may make the infant choke.</li> <li>▪ Every infant is different and may take a little more or less at different feedings.</li> <li>▪ Do not force-feed the infant.</li> </ul>
<p><b>3. Clean the utensils</b></p> <ul style="list-style-type: none"> <li>▪ Wash utensils with soap and clean water immediately after use; rinse with clean water.</li> <li>▪ Kill germs by boiling utensils in a pan (completely cover utensils with water); bring water to a rolling boil for 1-2 seconds. Store in pan and boiled water until needed.</li> <li>▪ Alternatively germs are killed by soaking utensils in a chemical steriliser — such as Milton (follow manufacturer's instructions).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Like milk, formula is sweet and germs grow quickly.</li> <li>▪ Contaminated utensils may make the infant sick.</li> </ul> 
<p><b>Cup feeding is always to be used instead of bottle feeding.</b></p> <p><b>Be prepared</b></p> <ol style="list-style-type: none"> <li>1. Use a reliable family-planning method to prevent getting pregnant too soon.</li> <li>2. In the event of a problem, consult a healthcare worker for help.</li> </ol>	

## **Appendix 3-F      General Tips on How to Talk With Children and Adolescents<sup>8</sup>**

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This section presents general guidelines that will be useful when interacting with children and adolescents, either when testing or for ongoing treatment and care. The goal of paediatric PITC is not only to identify children living with HIV, but also to link them to ongoing treatment. Establishing a comfortable and open relationship (using counselling based on the listening and learning skills discussed in Session 3.2) is the foundation for communication, education, and increases the chances that the child and family will return for treatment.

The age of the child and developmental stage is critical to the way in which the healthcare worker communicates with her or him. Younger children will need the presence of a trusted caregiver to feel secure. Some basic principles about working with children include:

- Make the child feel comfortable from the beginning; create a comfortable environment by encouraging the child to talk about general things that interest her or him before going on to discuss specific issues in their personal lives.
- Meet the child at her or his level; this might mean using creative methods to help children feel comfortable and express their feelings.
- Maintain eye contact.
- Do not ask too many questions.
- Create a relaxed space.
- Listen attentively.
- Use language that is developmentally appropriate. Ensure information given is correct.
- Avoid false reassurances and do not impose your personal beliefs on the situation.

Some basic principles about working with adolescents include:

- Make them feel comfortable by asking about something in which they are interested. (Did you hear about the football match last night? How is school going? I like the blouse you're wearing, did you sew that as well?)
- Engage and take an interest in the adolescent and not just in her or his physical condition.
- Explain confidentiality; note that there are some situations in which it may be necessary to breach confidentiality.
- Act appropriately and with authority without being an authoritarian.
- Be direct. Use clear language that is not too technical, complex or above ability to understand.
- Establish an approach in which you and the adolescent engage in a dialogue. Use an interactive, participatory style of communicating. This will include feedback, eliciting ideas, encouraging questions and

explaining processes and procedures. Allow the adolescent to educate and inform you.

- Give the adolescent time to get out her or his story. Be patient.

## Appendix 3-G Specific Counselling Guidance for Children and Adolescents

The previous appendix provided general guidance for speaking with children and adolescents in the context of testing and ongoing treatment and care. This appendix, which is the same as the material in the counselling cue cards, provides specific guidance for different age ranges.

<b>Counselling a Child living with HIV, Ages 6-9</b>	
<b>Guidance</b>	
<ul style="list-style-type: none"> <li>■ Disclosure counselling should <b>not</b> begin during the process of HIV-testing. Nor should disclosure counselling begin in a time of crisis; rather, initiate the process after there has been a period of adjustment for the family.</li> <li>■ If the child does not know about his or her status, do <b>not</b> use the term “HIV” in your discussion. You may talk to the child about specific concerns, e.g., why they have to come to the clinic so often, why they get sick, but without using the term “HIV”.</li> <li>■ At this age, children will naturally start asking questions about their care and illness. Answer questions honestly, describing issues in language that the child is able to understand.</li> <li>■ The <b>script</b> below (ages 6-9) uses language that does not include the word “HIV”, however, if the child knows his or her status, the word HIV may be used.</li> </ul>	
<p><b>Note:</b> these age divisions are meant as guidelines; decisions on what to say to the child should be based on developmental stage. Some children at this age will be at a higher or lower developmental level. It is important to discuss with the caregiver what will be appropriate for her or his child.</p>	
<b>Objective</b>	<b>Script</b>
<b>Tell the child that you are here to address their specific questions and concerns.</b>	I want to talk with you about any questions you have about your tests or clinic visits.
<b>Tell the child that HIV does not affect who they are as a person.</b>	You should know that even if you are sick, you can still grow up to live a good life. Just because you are sick does not mean that you cannot do most of the things that other children can do.

<p><b>For children who know their HIV status:</b> Tell the child that knowing their status is important to staying healthy because then they can participate in their own care.</p>	<p>Since you know your status, now you can understand why it is so important to eat healthy foods, take your medicine and help to take care of your own health.</p>
<p><b>Talk about HIV in age-appropriate terms.</b></p> <p><b>Talk about ways to stay healthy.</b></p>	<p>You have a sickness that lives in your blood and makes it easier for you to get other sicknesses. That means that you will get sick very often if you don't take your medicines. To stay healthy, you should also have good habits: eat healthy meals, exercise and always try to get enough sleep.</p>
<p><b>Discuss ART and adherence.</b></p>	<p>It is important for you to take your medicine every day and not skip any doses, even if you don't feel like taking them. These medicines will help you to stay healthier. Are you having any problems remembering to take or problems taking your medicines?</p>
<p><b>Discuss privacy.</b></p> <p><b>Encourage the child to decide with the caregivers who it is okay to talk to about HIV.</b></p>	<p>It is good for you to know about your sickness so that you can take good care of yourself. But it is not something you have to share with everyone. Only the doctors and nurses who are taking care of you and your family/friends might know that you are sick. You and your caregivers can decide who you can talk to about your sickness.</p>
<p><b>Tell the child about the doctors and services that can help her or him.</b></p>	<p>There are doctors who specialise in taking care of children just like you. There are also support groups and services in the community, such as _____, _____ and _____. Our referral team can help you get in touch with these services.</p>
<p>Comfort the child.</p> <p>Address any questions and concerns.</p>	<p>Now that you know you have a sickness, you have the power to stay healthy. We are here to help you.</p> <p>Do you have any questions? If you think of any questions later on, I am available to answer them. Let's talk about how you can contact me if you have any more questions.</p>

### **Counselling a Child living with HIV, Ages 9-11**

#### **Guidance**

- Give realistic information about health status.
- At this age, depending on the child's developmental level, it may be appropriate to begin discussions about HIV.

<ul style="list-style-type: none"> <li>▪ Emphasise that people with HIV can live meaningful lives and have normal relationships.</li> <li>▪ Help the child deal with possible stigma.</li> </ul>	
<b>Objectives</b>	<b>Script</b>
<b>Tell the child that you are here to address his or her specific questions and concerns.</b>	I want to talk with you about any questions you have about your HIV result.
<b>Tell the child that HIV does not affect who they are as a person, but knowing one's HIV status is important to being a healthy person.</b>	You should know that even if you have HIV, you can still grow up to live a good life. However, knowing your HIV status is important to staying healthy. If you do not treat HIV, it can turn into AIDS, a very serious disease that leads to death. You don't have to be scared, though. There are medicines that can help you take control of your health.
<b>Talk about HIV in age-appropriate terms.</b>	HIV is a sickness that lives in your blood and makes it easier for you to get other sicknesses. That means that you will get sick very often if you don't take your medicines and take them correctly.
<b>Discuss ART and adherence.</b>	It is important for you to take your medicine every day and not skip any doses, even if you don't feel like taking them. These medicines will help you to stay healthier. Are you having any problems remembering to take or problems taking your medicines?
<b>Talk about ways to stay healthy.</b>	Knowing that you have HIV will let you take control of your health. To stay healthy you should always take your medicines. You can also stay healthy by eating healthy foods, exercising and getting enough sleep.
<b>Discuss privacy.</b>  <b>Encourage the child to decide with the caregivers who it is okay to talk to about HIV.</b>	While knowing your HIV status is necessary for taking good care of yourself, it is not something you have to share with everyone. Your test results are confidential. That means that they are only shared with doctors and nurses who help to take care of you. You and your caregiver, together, can decide who else you feel comfortable talking to about your HIV status.
<b>Ask the child if she or he has been teased or treated differently because of having HIV.</b>	Some people have the wrong information about HIV and might treat you differently if they think you have HIV because they just don't know any better.  Has this happened to you? Some of the things you can do are: talk to someone you trust who

	can help you to manage the bad feelings; know that you have friends and family who love and care for you; and understand that HIV is just a sickness. Having it does not make you a bad or different person. You just have to take care of your health. You will be able to live a healthy life, just like others.
<b>Tell the child about the doctors and services that can help her or him.</b>	There are doctors who are experts in taking care of people just like you. There are also support groups and services in the community, such as _____, _____ and _____. Our referral team can help you get in touch with these services.
<b>Comfort the child.</b>	There are a lot of ways you can stay healthy and we are here to help you.
<b>Address any questions and concerns.</b>	Do you have any questions? If you think of any questions later on, I am available to answer them. Let's talk about how you can contact me if you have any more questions.

### **Counselling a Child living with HIV, Ages 12-16**

#### **Guidance**

- Give realistic information about health status; answer all questions.
- The child should know her or his status during this stage. Waiting to disclose makes learning about HIV much more difficult for the child to accept.
- Emphasise that people with HIV can live meaningful lives and have normal relationships.
- Help the child deal with possible stigma.
- Include prevention information in pre- and post-test counselling.

<b>Objectives</b>	<b>Script</b>
<b>Tell the adolescent that you are here to address his or her specific questions and concerns.</b>	I want to talk with you about any questions you have about your health and clinic visits.
<b>Tell the adolescent that HIV does not affect who they are as a person, but knowing one's HIV status is important to being a healthy person.</b>	You should know that even if you have HIV, you can still have a good life, even get married if you want to. However, knowing your HIV status is important to staying healthy. If you do not treat HIV, it can turn into AIDS, a very serious disease that leads to death. You don't have to be scared, though. There are medicines that can help you take control of your health.
<b>Talk about HIV in age-appropriate terms.</b>	HIV is a sickness that lives in your blood and makes it easier for you to get other sicknesses. That means that you will get sick very often if

	<p>you don't take your daily medicines and take them correctly.</p>
<p><b>Discuss ART and adherence.</b></p>	<p>It is important for you to take your medicine every day and not skip any doses, even if you don't feel like taking them. These medicines will help you to stay healthier. What are you doing now to remember to take your medicines every day? How many times have you forgotten to take your medicines in the past three days?</p> <p>If appropriate: Tell me a bit more about why you missed some doses of your medicine? What are your ideas to improve adherence (that is, to remember to take your medicine every day at about the right time)?</p>
<p><b>Talk about ways to stay healthy.</b></p>	<p>Knowing that you have HIV will let you take control of your health. To stay healthy you should always take your medicines. You can also stay healthy by eating healthy foods, exercising and getting enough sleep.</p>
<p><b>Discuss privacy.</b></p> <p><b>Encourage the adolescent to decide with the caregiver who it is okay to talk to about HIV.</b></p>	<p>While knowing your HIV status is necessary for taking good care of yourself, it is not something you have to share with everyone. Your test results are confidential. That means that they are only shared with doctors and nurses who help to take care of you. You and your caregiver, together, can decide who else you feel comfortable talking to about your HIV status.</p>
<p><b>Ask the adolescent if she or he has been teased or treated differently because of having HIV.</b></p>	<p>Some people have the wrong information about HIV and might treat you differently if they know you have HIV because they just don't know any better. You should be ready in case you run into someone like this.</p> <p>Has this happened to you? Some of the things you can do are: talk to someone you trust who can help you to manage the bad feelings; know that you have friends and family who love and care for you; and understand that HIV is just a sickness. Having it does not make you a bad or different person. You just have to take care of your health. You will be able to live a healthy life, just like others.</p>
<p><b>Tell the adolescent about the doctors and services that can help her or him.</b></p>	<p>There are doctors who are experts in taking care of young people with HIV. There are also support groups and services in the community, such as _____, _____ and _____. Our referral team can help you get in touch with these services.</p>

<p><b>Talk about the responsibility to protect others through basic health practices.</b></p> <p><b>When age-appropriate, talk about safer sex.</b></p>	<p>Now that you know your HIV status, you have the power to stay healthy. It is also your responsibility to prevent the spread of HIV. HIV can spread through blood, breast milk, pregnancy and unprotected sex (sex without a condom).</p> <p><b>If you are not yet having sex</b>, it is important that you stay abstinent until you are at an age when you are ready for what may happen if you have sex, for example, having a child.</p> <p>You can pass on HIV to your partner if you have sex without using a condom. That means that you should always use a condom when you have sex. This will also help prevent against unwanted pregnancies. Having sex without a condom is the most common way that HIV is spread. If you are having sex, it is important that you stay with only one partner and talk to your partner about being only with you.</p>
<p><b>Comfort the adolescent.</b></p> <p><b>Address any questions and concerns.</b></p>	<p>There are a lot of ways you can stay healthy and we are here to help you.</p> <p>Do you have any questions? If you think of any questions later on, I am available to answer them. Let's talk about how you can contact me if you have any more questions.</p>

## Appendix 3-H    Listening and Learning Skills Checklist

**As you observe your colleagues role play, indicate the listening and learning skills they use by placing a check in the appropriate box.**

### SKILLS AND TECHNIQUE CHECKLIST

Skill	Specific Strategies, Statements, Behaviours	(✓)
<b>Skill 1: Use helpful non-verbal communication</b>	■ Shows a relaxed and natural attitude	
	■ Adopts an open posture	
	■ Leans forward when talking	
	■ Makes eye contact	
	■ Sits squarely facing caregiver	
	■ Other (Specify)	
<b>Skill 2: Ask open-ended questions</b>	■ Uses open-ended questions to get more in-depth information from the caregiver	
	■ Asks questions that reflect interest, care and concern rather than interrogation	
	■ Other (Specify)	
<b>Skill 3: Use responses and gestures that show interest</b>	■ Nods, smiles reassuringly; uses encouraging responses (such as “yes,” “okay,” “Mmm,” or “aha”)	
	■ Clarifies statements effectively	
	■ Takes time to summarise information the caregiver shares	
	■ Comments on caregiver’s challenges while also indicating caregiver’s strengths	
	■ Other (Specify)	
<b>Skill 4: Reflect back what the caregiver says</b>	■ Reflects emotional responses back to the caregiver using different words	
	■ Other (Specify)	
<b>Skill 5: Empathise — show that you understand how she or he feels</b>	■ Demonstrates empathy: shows an understanding of how the caregiver feels	
	■ Avoids sympathy. Sympathy is when the healthcare worker moves the focus to herself or himself (“I know how you feel, my sister has HIV”) whereas empathy focuses on the caregiver (“You’re really worried about what’s going to happen now that your test is positive”).	
	■ Other (Specify)	
<b>Skill 6: Avoid words that sound judgemental</b>	■ Avoids judging words such as good, bad, correct, proper, right, wrong, adequate, inadequate, satisfied, sufficient, fail, failure, succeed, success, etc.	
	■ Uses words that build confidence and give support (e.g., recognises and praises what a mother is doing right)	
	■ Other (Specify):	

## **Appendix 3-I      Infant Feeding Counselling Session**

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**This appendix supports the steps listed in Figure 3.2: Infant feeding counselling flowchart for women with HIV.**

**Welcome the mother and explain what will happen during the counselling session:**

- *You will learn why we recommend breastfeeding for all women, including women with HIV, and how to breastfeed safely (Step 1).*
- *You will learn how HIV is transmitted from mother to baby and how you can lower the chances that your baby will be HIV-infected (Step 2).*
- *You will learn more about how you can get the care and support you need. If she has been diagnosed with HIV at the same time as her baby, she will be provided with information about ARVs and how ARVs can protect her health and reduce MTCT (Step 3).*
- *I will show you how to breastfeed (Step 4).*
- *In future, when you come to the clinic you will have an opportunity to meet with me or another healthcare worker to discuss any questions you may have about infant feeding. Please consider bringing your partner, a friend, or family member with you at that time (Step 5).*
- *You should feel free to ask questions at any point in time during our discussions today or in the future.*

### **Step 1: Discuss exclusive breastfeeding.**

#### **If she is pregnant or has just delivered**

Breast milk is the ideal nourishment for infants. It contains all the nutrients, antibodies and hormones an infant needs to thrive the first six months of life. Breast milk protects babies from diarrhoea and respiratory infections. Given the importance of breast milk to infant growth and development, the government of Zambia recommends that all babies are breastfed exclusively for the first six months of life.

- *Do you have any other children? (If yes) How did you feed your other children from birth to six months old?*
- *How did you plan to feed this baby? Did you give your baby any foods or liquids other than breast milk in the first six months of life?*
- *What do you know about breastfeeding?*
- *Do you know how to position your baby to breastfeed?*
- *Do you know how to make sure your baby is properly attached?*
- *Do you expect to be away from your baby in the first six months after you give birth (for example, to go to work)? (If yes: Discuss expressing milk for caregiver to provide to the baby when the mother is absent.)*
- *What questions do you have?*

#### **If she already has a child**

- *How is breastfeeding going for you?*

- *What questions do you have about breastfeeding?*
- *Do you have to rely on others to feed your baby (for example, maybe because you've returned to work)? (If yes: Discuss expressing milk for the caregiver to provide to the baby when the mother is absent.)*

## **Step 2: Explain the risk of MTCT and how to reduce risks.**

- *A mother must be infected with HIV to pass the virus to her baby. (If the mother is diagnosed with HIV as part of the infant PITC, then provide her with counselling first; follow the steps below for the infant feeding component of her post-test counselling session).*
- *Not all babies born to women living with HIV become infected with HIV themselves.*
- *Babies can be infected during pregnancy, during delivery or through breastfeeding. There are things that can be done at each stage to reduce the chances that the baby will be HIV-infected.*
- *A number of things may increase the chances of passing HIV through breastfeeding:*
  - *Mother was recently infected with HIV*
  - *Mother has a low CD4 count or advanced HIV infection or AIDS*
  - *Mother is not on ART or ARV prophylaxis*
  - *Breast problems such as an infection, sores or cracked or bleeding nipples*
  - *Mixed feeding (feeding both breast milk and other foods or liquids)*
  - *Mouth sores or thrush in the baby*
- *There are many things you can do to reduce the chance that you will pass HIV to your baby:*
  - *Enrol in HIV care and treatment*
  - *Take all of your medicines every day during pregnancy, labour, and throughout the breastfeeding period; if your baby is given medicines by a healthcare worker, make sure she gets all of her medicines every day.*
  - *Plan to delivery your baby in a healthcare facility.*
  - *Breastfeed your baby exclusively. Breastfeeding **exclusively** dramatically reduces risk of MTCT in comparison to mixed feeding. Breastfeeding exclusively means that in the first six months of life you give your baby only breast milk, no other foods, liquids, not even infant formula or water. Who do you think might pressure you to give foods or liquids other than breast milk to the baby? What will you say to this person? We recommend that all women — whether HIV-infected or not — breastfeed exclusively, so refusing to provide your baby other foods or liquids will not require you to discuss your HIV status.*
  - *Are you familiar with formula feeding? Do you know anyone who gave their baby infant formula? Formula feeding does eliminate risk of HIV but brings with it the risk of diarrhoea, respiratory infections and malnutrition.*
  - *Because of the risks associated with formula feeding, formula fed babies are at a greater risk of death than babies that are exclusively*

*breastfed, even when the mother has HIV. Having said that, if certain conditions are met, formula feeding is fairly safe. We can discuss these conditions, if you think you might want to formula feed.*

### **Mothers who express an interest in formula feeding**

Explore with the mother conditions in the home. The mother must meet **all** six of the conditions below for formula feeding to be considered safe. You may stop the discussion of the home conditions as soon as you determine she does not meet any ONE of the conditions. If she does not meet even one of the conditions below, reinforce the decision to breastfeed exclusively until six months of age.

<b>Conditions</b>	<b>Possible questions to ask clients</b>
Safe water and sanitation are assured at the household level and in the community, <b>and</b> ,	<ul style="list-style-type: none"> <li>▪ <i>Where do you get your drinking water?</i></li> <li>▪ <i>What kind of latrine/toilet do you have?</i></li> <li>▪ <i>Do you have access to enough clean water and soap to wash your hands thoroughly before preparing the baby's feeds?</i></li> </ul>
The mother, or other caregiver, can reliably provide sufficient infant formula milk to support normal growth and the development of the infant, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>How much money can you afford for formula each month?</i></li> <li>▪ <i>Do you have money for transportation to get replacement feeds when you run out?</i></li> <li>▪ <i>Do the markets or stores in your area tend to run out of formula?</i></li> </ul>
The mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>Can you sterilise feeding equipment and utensils such as bottles, teats, measuring and mixing spoons? (The most common way to sterilise feeding equipment and utensils is by boiling in a pot of water.)</i></li> <li>▪ <i>Do you have a refrigerator with reliable power?</i></li> <li>▪ <i>Can you boil water for each feed?</i></li> <li>▪ <i>How would you arrange night feeds?</i></li> </ul>
The mother or caregiver can, in the first six months, exclusively give infant formula milk, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>How have you fed your other babies (if she has given birth before)?</i></li> <li>▪ <i>How do you feel about not breastfeeding this baby?</i></li> </ul>
The family is supportive of the practice, <b>and</b>	<ul style="list-style-type: none"> <li>▪ <i>Of the people who live with you, who knows that you have HIV?</i></li> <li>▪ <i>Is your partner supportive of formula feeding and is he willing to help? How about your mother-in-law? Other responsible family members?</i></li> <li>▪ <i>Will all caregivers be able to prepare the feeds safely and correctly?</i></li> </ul>

Conditions	Possible questions to ask clients
The mother or caregiver can access health care that offers comprehensive child health services.	<ul style="list-style-type: none"> <li>▪ <i>Do you have consistent access to a healthcare facility that offers child health services?</i></li> <li>▪ <i>Are these services free? If not, are you able to afford the health services should you or your child need it?</i></li> </ul>

### **Recommendation for mothers who can safely formula feed**

Mothers who formula feed should do so exclusively for the first six months of life (they should give no other liquids or foods, not even water or breast milk). Introduce appropriate complementary foods when the child is six months old; continue formula feeding till 12 months, then transition to animal milk until at least 24 months of age.

### **Step 3: Ensure mother is in HIV-related care; discuss ARVs to reduce risk of MTCT.**

- *How long have you known that you are living with HIV?*
- *Are you receiving care for your HIV infection? (If no, provide or refer her for care.)*
- *Are you taking and medicine for your HIV? (If not, provide or refer to start ARV prophylaxis and assessment for ART eligibility.) (If yes) Which medicines?*
- *How often do you take your medicine? (Encourage excellent adherence to all HIV medications.)*
- *How do you give medicine to the baby? Are you having any problems? (Discuss and demonstrate administration of medicine for the infant as needed. Encourage excellent adherence to medications for the child.)*
- *Even during the breastfeeding period, ARVs — whether taken by yourself and/or your baby — reduce risk of MTCT.*

### **Step 4: Demonstrate how to breastfeed or observe a breastfeed.**

Ideally, a woman should learn how to breastfeed before her baby is born. This should take place during the last trimester of pregnancy, or as soon as possible after she has given birth. If possible, the woman's partner or a family member should accompany her.

#### **If the mother is pregnant:**

- Demonstrate breastfeeding using a doll and model breast. Ask the mother to show you how to position the “baby” and bring the “baby” to her breast. Offer support and corrective advice if needed.

#### **If the mother already has a child:**

- Ask the mother to show you how she feeds her baby. Observe, offer support and corrective advice if needed.

The healthcare worker should have all of the necessary supplies on hand for teaching and demonstrations, including a doll and model breast to demonstrate breastfeeding. The counsellor should also have the appropriate take-home flyers.

If the mother meets all of the conditions for safe formula feeding, discuss this option with her and help her choose between breastfeeding and formula feeding. If she wants to formula feed and it is safe for her and her infant, provide her with opportunity to practice hygienic and correct preparation of infant formula and cup feeding. She should bring with her to the counselling session a transparent container that she will use to measure liquids, as well as a teaspoon or spoon.

See Appendices 3-C, 3-D and 3-E for additional guidance on safe formula feeding and Appendix 3-B on expressing and heat-treating breast milk.

### **Step 5: Provide follow-up counselling and support.**

**If the mother is pregnant:** During subsequent visits, the mother should have an opportunity to ask any questions. Ideally, the woman should bring her partner or a supportive family member with her to this session so that they can learn together how to feed the baby. Ask the mother:

- *Let's review what happened in the last session. From what I remember, you are breastfeeding (or formula feeding).*
- *Who did you discuss this with? How did they feel about it? What questions did they have? What questions do you have?*
- *What questions do you have about exclusively breastfeeding?*
- *What might make it difficult for you to exclusively breastfeed?*
- *Are you taking any medicine for your HIV? (If not, provide or refer to start ARV prophylaxis and assessment for ART eligibility.) (If yes) Which medicines? How many times did you take you medicine yesterday? How about the day before yesterday?*

#### **If the mother already has a child and is breastfeeding**

- **If the infant is less than six months old:**
  - *How is breastfeeding going for you?*
  - Check if she breastfeeds exclusively; ask about mixed feeding. The infant should not be given any other liquids or foods other than breast milk (not even water or formula!). Ask how she handles pressure from friends and family to give her baby other liquids or foods. Role play with her if she would find it helpful.
  - Check if she breastfeeds on demand and for as long as the infant wants.
  - Observe a breastfeed and assess the mother's breasts for abnormalities; advise appropriately.
- **If the infant is approaching six months:** discuss complementary feeding with continued breastfeeding to 12 months. Discuss transitioning to animal milk from 12 months of age.

- Provide support to women who are transitioning their infants or children from breast milk to formula or other milk.
- Teach mothers how and when to express and heat-treat breast milk (Appendix 3-B).
- Provide her with support to cup feed (Appendix 3-E).
- **If the infant is approaching 12 months:** discuss weaning at 12 months and transitioning to animal milk until at least 24 months of age.

**If the mother already has a child and is formula feeding:**

- *How is formula feeding going for you?*
- Check if she uses the recommended infant formula and is preparing it correctly and hygienically (see Appendices 3-C and 3-D).
- Check if she replenishes her infant formula stock before it runs out.
- Check that she gives an appropriate volume and number of feeds (if not, recommend that she adjust the amount according to the infant's age).
- Check that she discards unused formula after two hours.
- Ensure she is using a cup instead of a bottle for feeding the infant (Appendix 3-E).
- **If the infant is less than six months old:** check that the infant is not mixed fed. Check that the mother is not giving breast milk in addition to formula.
- **If the infant is approaching six months:** discuss complementary feeding with continued formula feeding to 12 months and then transitioning to animal milk until at least 24 months of age.

Follow-up counselling and support is important for women with older infants or young children who have just learned that they are living with HIV. For these women, who may not have received the benefits of a PMTCT programme, special attention should be paid to feeding issues, care and treatment, and the need for support. Regardless of whether the mother has newly discovered she is living with HIV, or has known and benefitted from other education and counselling, ongoing counselling on feeding should be a part of all postpartum visits.

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  - <sup>8</sup> REPSSI. (2008). Mainstreaming psychological care and support within paediatric HIV and AIDS treatment.

# Module 4      Overview of Paediatric HIV Testing and Counselling

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**Total Module Time:**      160 minutes (2 hours, 40 minutes)

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss the importance of early diagnosing HIV infection as early in life as possible.
- Describe key points about the use of HIV antibody and DNA PCR testing in children.
- Define PITC.
- Demonstrate an understanding of the paediatric HIV testing and counselling algorithms.

## **Session 4.1: Importance of Early Recognition of HIV Infection in Children**

## **Session 4.2: Guidelines for Paediatric HIV Testing and Counselling**

## Session 4.1      **Importance of Early Recognition of HIV Infection in Children**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Discuss the importance of early diagnosis of HIV infection.
- Describe key points about the use of HIV antibody and DNA PCR testing in children.

### **The Importance of Early Diagnosis of HIV in Children**

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As discussed in Module 2, most HIV infection in children results from mother-to-child transmission (MTCT) of HIV, which can occur during pregnancy, labour and delivery, or breastfeeding. There are many interventions to reduce the risk of MTCT. There are also many things we can do to care for children who are HIV-infected.

Without anti-retroviral therapy (ART), HIV disease progresses very rapidly in young children. More than half of HIV-infected children will die before two years of age. For undiagnosed children with HIV who live beyond the age of two years, HIV often goes unrecognised until the child is very ill. Untreated HIV infection often results in growth and developmental delays, including brain damage. These problems may not be reversible. But with early diagnosis and treatment it is possible for children to live long, healthy lives with HIV.

#### **HIV Disease Progression in HIV-infected Children**

- 30% of untreated HIV-infected children die before their 1<sup>st</sup> birthday.
- More than 50% die before they reach two years of age.
- An infant's first significant HIV illness is likely to end in death.
- Untreated HIV infection often results in growth and developmental delays and brain damage. These are very difficult to treat or reverse.

It is crucial to diagnose HIV infection in children **as early as possible — ideally in infancy** — to prevent death, illness and growth and developmental delays. Children with HIV infection should begin ART as soon as possible to prevent or limit disease progression.

**The goal of diagnosing children as early as possible is to identify HIV-exposed and HIV-infected children and engage them in life-saving care. Early access to HIV care and treatment can delay or limit disease progression, improve health and prevent death.**

## **Considerations for Paediatric HIV Testing**

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**Diagnosing HIV infection in children is somewhat different than diagnosing HIV infection in adults.**

- While many of the same tests and procedures for HIV testing and counselling in children are used in adults, such as pre- and post-test counselling and rapid HIV antibody tests, there are a number of differences in how these tests and procedures are used and interpreted. These differences are discussed in more depth below.
- Paediatric HIV testing requires the participation and cooperation of the caregiver(s), who may also be living with HIV and coping with his or her own illness. Caregivers may become worried and anxious when children are sick; mothers may have guilt about the possibility that they passed HIV to their child.
- Identifying HIV early in life is even more critical in children than in adults given their fast disease progression and high mortality rates.
- HIV testing in children less than 18 months of age or in those who are still breastfeeding is not a one-time event. Instead, HIV testing and counselling in children less than 18 months is an ongoing process that may require the child to be tested multiple times.
- HIV infection cannot be excluded in breastfeeding children (of any age) because they continue to be at risk of acquiring HIV infection through breast milk if the mother is herself living with HIV. More information about breastfeeding and HIV is provided in Module 3.

## **Antibody Testing in Children**

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Antibody tests, such as the Determine and Uni-Gold rapid tests, detect the antibody that the body makes in response to HIV. These tests do not detect the virus itself.

The same antibody tests that are used in adults can be used in children. But, the result of the HIV antibody test is interpreted differently in children under the age of 18 months than in children and adults older than 18 months. Interpretation of results also depends on whether or not the child is breastfeeding.

**Key points when using antibody tests in children less than 18 months of age:**

- Maternal HIV antibody is transferred across the placenta during pregnancy.
- ALL children born to mothers living with HIV will test HIV antibody positive in the first months of life.
- Maternal antibodies may remain detectable in the child's blood for as long as 18 months.
- The HIV antibody test can only definitively indicate HIV-infection *after* the age of 18 months, when maternal antibodies are no longer present.

- HIV-infected babies will also develop their own HIV antibodies, but an antibody test cannot distinguish between the mother's and the baby's antibodies.
- A positive HIV antibody test will **NOT** distinguish whether or not a child less than 18 months of age is HIV-infected. Rather, it shows that:
  - The mother is living with HIV, and
  - The child is HIV-exposed and is at risk of HIV-infection.
- If the child is not HIV-infected, the HIV antibodies from the mother will fade away during the first 6–18 months of life.
  - Most uninfected children test HIV-antibody negative by 12 months of age.
  - By 18 months of age, all uninfected children will test HIV-antibody negative.
- If the child is HIV-infected, the maternal HIV antibodies will fade during the first 6–18 months of life, but the child will continue to produce his or her own HIV antibodies. If HIV antibodies are present at or after the age of 18 months, this indicates the child is HIV-infected.
- Since most HIV-uninfected children lose maternal antibodies by the age of 12 months, a high index of suspicion of HIV infection is warranted in children who are still antibody-positive after 12 months of age.
- A negative HIV antibody test before the age of 18 months indicates the child does not have HIV infection, unless the baby is currently breastfeeding or has breastfed within the previous three months (in which case she or he may be in the window period.)

To summarise: Because of the presence of maternal HIV antibodies in HIV-exposed children, a positive HIV antibody test may not be indicative of the child's true HIV *infection* status. Rather, the antibody test reflects the *mother's status* and identifies the child as HIV-exposed.

Since HIV can be transmitted through breastfeeding (if the mother is living with HIV), a breastfeeding child remains at risk of acquiring HIV until complete cessation of breastfeeding. The MoH recommends that children be tested or re-tested at least three months after complete cessation of breastfeeding.

## **Virologic HIV Testing in Children**

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Because an HIV antibody test cannot definitively diagnose infection in children less than 18 months, laboratory testing for evidence of the virus or virus particles is needed to determine HIV status. The test that detects presence of the virus or virus particles is called the HIV **DNA** PCR test (also referred to simply as DNA PCR test). HIV **RNA** PCR virologic testing can also be used to diagnose infection in infants; however it is currently not in use in Zambia.

Unlike antibody tests, DNA PCR can detect HIV (the actual virus) in a child's blood. By the time a baby is four weeks old, the DNA PCR test is 98%+ accurate in detecting HIV in an infected child, even if the child was

infected during pregnancy or at delivery. The MoH recommends initial DNA PCR testing for HIV-exposed children at six weeks of age or as soon thereafter. DNA PCR is used to diagnose HIV infection in children up to the age of 18 months.

**Children less than 18 months of age who have a positive HIV antibody test or who are known to be HIV-exposed (the mother’s HIV-infection is documented) should be tested using DNA PCR.**

Using DNA PCR for early (i.e. before 18 months of age) diagnosis has the following advantages:

- Known HIV-infected children can be provided with care and treatment at a time when they are most vulnerable to rapid HIV disease progression and death.
- Caregivers can make informed decisions about breastfeeding (see also Module 3).
- Families experience a reduction in the burden of stress due to worry over a child’s uncertain HIV status.
- Healthcare workers — particularly those in hospital settings, but also those in primary care — are able to provide more appropriate care, treatment, support and referrals.
- The family can make decisions on testing of other family members (mother, father and siblings) and ensure that those with HIV are enrolled into care.

\*Note that if DNA PCR testing is not available, HIV-exposed children less than 18 months of age must be closely monitored for signs and symptoms of HIV disease. Signs and symptoms warrant further evaluation to diagnose HIV infection by clinical and immunological criteria so that the child can be appropriately treated. (See *Zambia National Guidelines for the Treatment of Infants and Children with HIV.*)

<b>Exercise 1: Benefits of early HIV diagnosis</b>	
<b>Purpose</b>	<ul style="list-style-type: none"> <li>■ To review and explain the benefits of early HIV diagnosis in children</li> </ul>
<b>Introduction</b>	<p>Participants will break into four small groups. Each of the groups will be assigned either of scenarios below:</p> <ul style="list-style-type: none"> <li>■ <b>Scenario 1:</b> You are a multidisciplinary team of healthcare workers at a small district hospital in a rural area. You have made an appointment with the Medical Director to propose that the hospital start services to promote HIV testing of all children admitted to hospital whose HIV status is unknown. The Medical Director is not a paediatrician, has limited experience providing HIV care, and has a reputation for resisting all change.</li> <li>■ <b>Scenario 2:</b> You are a multidisciplinary team of healthcare workers at a small district hospital in a rural area. Your hospital just started offering HIV testing for infants, including DNA PCR testing. You have</li> </ul>

	<p>appointments with two community councils from villages near the hospital to introduce this new service and to gain their support for paediatric PITC. Although the community council members have a basic understanding of HIV, they do represent villages that are known to be quite conservative.</p> <p>Each of the small groups should answer the following questions about their scenario, which they should be prepared to present to the large group:</p> <ul style="list-style-type: none"><li>■ Prepare 5–7 key talking points for your meeting with the Medical Director or with the community council members.</li><li>■ Highlight the benefits of early diagnosis of HIV.</li><li>■ Make a list of the questions you expect to be asked (with a focus on questions about challenges to scaling up this service) and your response to each of these potential questions.</li></ul>
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## Session 4.2 Guidelines for Paediatric HIV Testing and Counselling

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### Session Objectives

After completing this session, participants will be able to:

- Define PITC.
- Demonstrate an understanding of the paediatric HIV testing and counselling algorithms.

### Overview of the Zambia National HIV Testing and Counselling Strategy

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The Zambia MoH outlines the national HIV testing and counselling strategy in its 2006 guidelines. According to these guidelines, HIV testing and counselling should be offered through the following models of service delivery:

- **Routine PITC:** healthcare workers routinely offer HIV testing and counselling to all clients in contact with the healthcare system in all settings.
- **Voluntary counselling and testing:** relies on an individual to seek HIV counselling and testing services.
- **Diagnostic testing and counselling:** healthcare workers recommend HIV testing as part of the diagnostic assessment for patients who present with symptoms that could be related to HIV.

**The MoH recommends an “opt-out” approach**

- This means the pre-test information is routinely provided to everyone, the HIV test is recommended and the client is informed of his or her right to refuse the test.
- All clients are tested expect those who specifically decline the offer of testing (i.e., “opt-out”).
- Obtaining consent for HIV testing is discussed in greater detail in Module 5.

The national HIV testing and counselling strategy also supports expanded access to HIV testing for children, stating that, *“The welfare of the child should be the primary concern when considering testing a child.”*

**All of the above testing models require:**

- Pre-test session (individual counselling or a group pre-test session)
- Consent for HIV testing
- Collection and testing of a blood sample
- Confirmatory testing for positive results
- Post-test counselling for positive or negative results
- Proper documentation of HIV test results

- Referrals to needed HIV care and treatment services for HIV-exposed and HIV-infected children and their families

## **Routine, Paediatric PITC**

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Based on site-specific data, as many as 30% of paediatric hospital patients in Zambia are HIV-exposed or HIV-infected. However, until recently, many hospitalised children were never tested and therefore were not given lifesaving care and treatment.

The MoH developed guidelines for routine, paediatric PITC. These guidelines complement the national HIV counselling and testing guidelines, which state:

*“There is a need to promote routine counselling and testing for HIV at all health facilities and community outreach settings. HIV counselling and testing should be offered routinely as part of the strategy to effectively manage clients and patients and those presenting themselves for various medical and social reasons.”*

In addition to the testing of children of mothers living with HIV (HIV-exposed children), the MoH recommends that *all* children be routinely offered HIV testing and counselling. The MoH recommends a phased implementation of paediatric PITC services, with priority placed on initiating services for children most at risk for HIV, including:

- All children under five years of age of mothers with unknown HIV-status
- All children admitted to hospital for any reason
- Children with symptoms, including those whose growth is faltering or are malnourished, children seen in TB clinics and children with a delay or reversal of developmental milestones
- Children of adults accessing HIV care and treatment services
- Children who have been sexually abused

## **Which Healthcare Workers?**

Paediatric PITC is conducted by healthcare workers such as nurses, midwives, nurse counsellors, doctors, medical licentiates, clinical officers, counsellors and social workers. This is different from other models of HIV testing that rely solely on lay counsellors. When all healthcare workers are trained to provide HIV testing and counselling, the service is “normalised” and becomes a routine part of clinical services. With more healthcare workers trained to provide HIV testing and counselling, more children will be tested and ultimately receive the care and treatment they need.

To supplement the healthcare workers, lay counsellors who have received specific training for paediatric HIV testing may also be used if personnel shortages demand it. Alternatively, lay counsellors can be assigned to conduct post-test and supportive counselling if trained to do so. It is,

however, critical that healthcare workers are involved, whether they supervise or conduct the testing themselves, because the aim of paediatric testing is to identify HIV-exposed and HIV-infected children so that they can access care and treatment. It is the role of healthcare workers and managers to ensure strong linkages between testing and care and treatment.

## **Which Locations?**

Paediatric PITC first started at the University Teaching Hospital (UTH) in Lusaka and is now being decentralised to hospitals and other health facilities throughout the country. The MoH recommends that paediatric PITC be provided at:

- Paediatric hospital wards and any inpatient hospital ward with paediatric patients
- Under-Five clinics
- PMTCT clinics
- Malnutrition clinics and wards
- TB clinics
- Outpatient clinics with paediatric patients

Routine testing and counselling should continue to be offered to pregnant women as a part of PMTCT services. PMTCT service scale-up must continue.

### **Case Study:**

#### **Inpatient Paediatric PITC: University Teaching Hospital (UTH)<sup>1</sup>**

The Paediatric Centre of Excellence at UHT in Lusaka provides an example of the implementation and success of paediatric PITC. At UHT caregivers of children admitted to hospital are routinely offered HIV testing and counselling for their children. Pre-test sessions, usually conducted in groups, are given by nurse counsellors. After obtaining consent, children are tested for HIV on-site using the rapid antibody test. All HIV antibody-positive children less than 18 months of age are then tested with DNA PCR. All caregivers were provided their results within a post-test counselling session.

During an 18-month period (January 2006–June 2007), 15,670 children with unknown HIV status were admitted to UTH. Of these, 85% of caregivers received pre-test counselling and 88% of those were tested for HIV. Of those children tested, nearly 30% were HIV-infected. The rate of DNA PCR positivity increased with age — from 22% in children less than six weeks of age, to 61% at 3–6 months of age, to 85% among children aged 12–18 months.

Initiating testing and counselling at the first point of contact provided more opportunity for caregiver education and assessment of the family's medical and social needs. Some children were assessed for ART eligibility during hospitalisation.

The high rates of HIV infection found in hospitalised children at UTH underscores the need to rollout early routine paediatric PITC in hospital settings throughout the country.

## **Overview of Paediatric HIV Testing Algorithms**

There are specific steps to determine or exclude HIV infection in children. To aid in this process there are two paediatric algorithms for the testing and diagnosis of HIV. The first is for children less than 18 months of age (see Figure 4.1), and the second for children 18 months of age or older (see Figure 4.2).

Regardless of the child's age, the testing process starts with the pre-test session, which is attended by caregivers (usually this is done in groups or individually). After the pre-test session, the caregiver is asked to consent to having their child tested for HIV. Once consent is given, the first step is to either:

- Conduct DNA PCR testing (if the child is known to be HIV-exposed or has previously tested HIV-antibody positive and is less than 18 months of age), OR
- Conduct HIV antibody testing (if the child's HIV-exposure status is unknown or if the child is older than 18 months of age).

### **Less than 18 Months of Age**

- A positive antibody test in children less than 18 months indicates that the child has been exposed to HIV; this usually means that the mother is living with HIV. To determine the child's HIV infection status, conduct DNA PCR testing.
- A negative antibody test for a child less than 18 months of age means the child is not HIV-infected. A child breastfed by an HIV-infected woman — or a woman who acquires HIV while breastfeeding — continues to be at risk of HIV.

### **18 Months or Older**

- A positive antibody test in a child 18 months or older indicates that the child is HIV-infected. Always confirm the initial test result with a confirmatory test (e.g. UniGold), to ensure accuracy of the first test.
- A negative antibody test in a child 18 months or older — who is not breastfeeding or who has not breastfed at any time in the past three months — means that the child is not HIV-infected.
- A negative antibody test in a child 18 months or older — who has been breastfed by a woman with HIV at any time within the past three months — means that the child was not HIV-infected three months before the test was administered. But, as the child has been recently exposed to HIV, she or he may be in the window period. In this case, HIV testing

should be repeated three months after complete cessation of all breastfeeding.

Post-test counselling and follow-up care are critical components of paediatric PITC. All caregivers should receive post-test counselling. All children who are HIV-exposed or HIV-infected should be referred for life-saving care and treatment.

It is important that healthcare workers follow up with children and families until the final HIV infection status is determined. Unlike HIV-testing in adults, final determination of HIV status in young children may take months. For example, a child might test DNA PCR negative early on, but go on to become HIV-infected through breastfeeding. HIV-testing of older, non-breastfeeding children is similar to testing in adults.

## **Presumptive Clinical Diagnosis of HIV Infection**

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### **Less than 18 Months of Age**

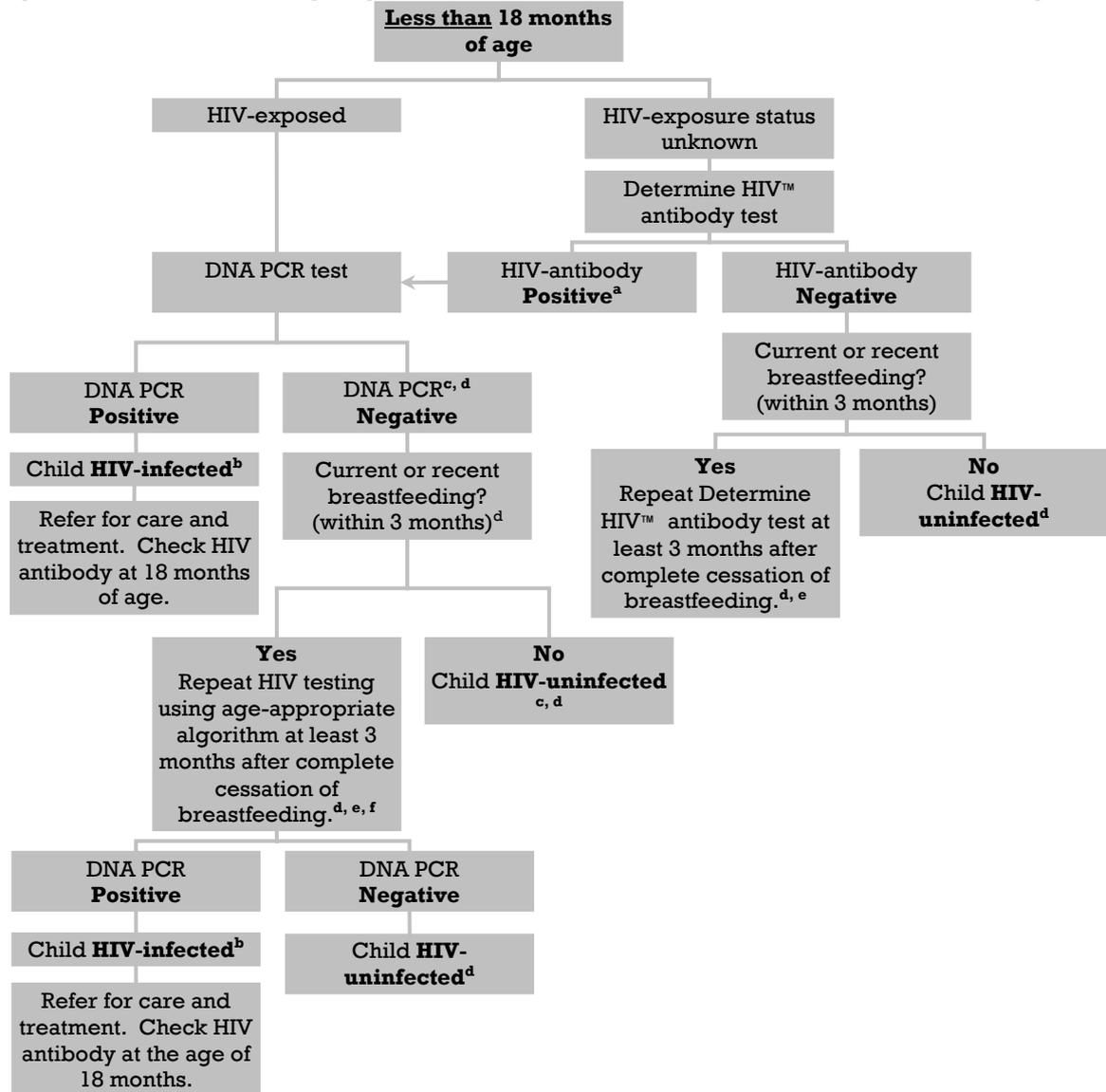
If a child less than 18 months of age has symptoms that are suggestive of advanced HIV infection and DNA PCR testing is not available, a presumptive clinical diagnosis of HIV infection may be necessary. This diagnosis will permit decision-making on the need for the initiation of potentially life-saving ART. Antibody testing must be repeated anytime after 18 months of age to confirm infection status. (See *Zambian Guidelines for Antiretroviral Therapy of HIV Infection in Infants and Children*.)

### **18 Months or Older**

For children 18 months of age or older with signs and symptoms suggestive of HIV, the use of antibody testing is strongly recommended (following the testing protocol in Figure 4.2). Some clinical conditions are very unusual without HIV infection (e.g. pneumocystis pneumonia, oesophageal candidiasis, Kaposi's sarcoma and cryptococcal meningitis), and the diagnosis of these conditions would suggest HIV infection and indicate a need to conduct an HIV antibody test for a definitive diagnosis.

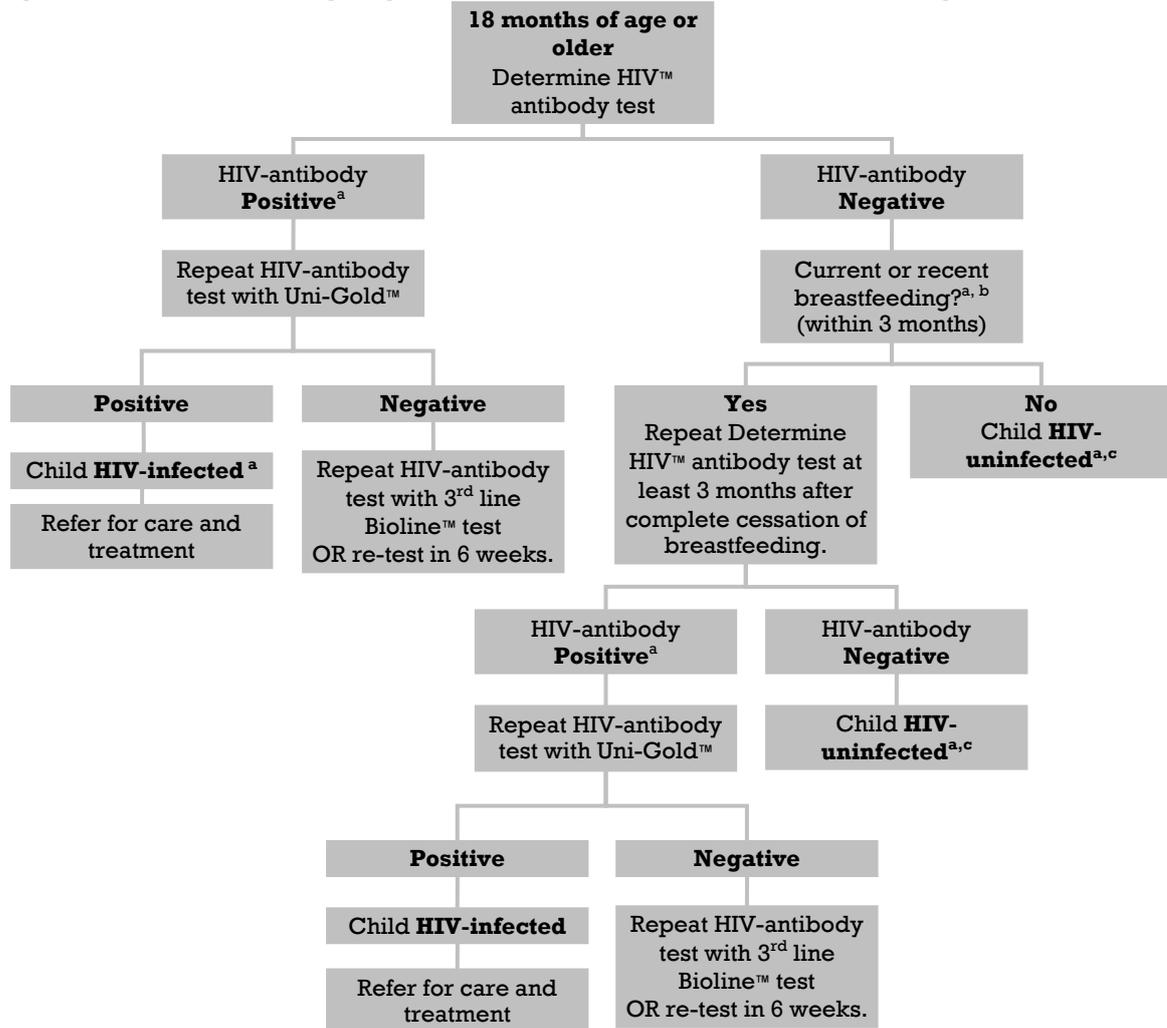
**Remember: It is important that healthcare workers follow up with children and families until their final HIV infection status is determined. This process can take months.**

**Figure 4.1: HIV testing algorithm for children less than 18 months of age**



- <sup>a</sup> A positive antibody test in this age group indicates HIV exposure (mother is HIV-infected).
- <sup>b</sup> A positive virological test at any age indicates HIV infection. Infants 12 months and younger should receive treatment immediately, regardless of CD4 count. HIV antibody testing is done at the age of 18 months as a confirmatory test.
- <sup>c</sup> DNA PCR testing is maximally sensitive after the age of 4-6 weeks. A negative DNA PCR test conducted before the age of four weeks should be repeated 1) immediately if the child is symptomatic; or 2) after the age of four weeks.
- <sup>d</sup> If a child experiences symptoms suggestive of HIV, HIV testing should be repeated (even if child has not stopped breastfeeding).
- <sup>e</sup> A breastfeeding child remains at risk of HIV infection if the mother is HIV-infected or becomes HIV-infected during the breastfeeding period. It is recommended that breastfeeding children be re-tested for HIV at least three months after complete cessation of breastfeeding.
- <sup>f</sup> Use DNA PCR if less than 18 months of age and HIV antibody test if 18 months of age or older.

**Figure 4.2: HIV testing algorithm for children 18 months of age or older**



<sup>a</sup> A positive antibody test for a child 18 months or older should be confirmed with a second HIV antibody test. A positive confirmatory test indicates HIV-infection. A single negative antibody test for a child 18 months or older *who has not breastfed in the past three months* excludes HIV infection.

<sup>b</sup> A breastfeeding child remains at risk of HIV-infection if the mother is HIV-infected or becomes HIV-infected during the breastfeeding period. It is recommended that breastfeeding children be re-tested for HIV three months after complete cessation of breastfeeding.

<sup>c</sup> If a child experiences symptoms suggestive of HIV, testing should be repeated (even if child has not stopped breastfeeding).

**Exercise 2: Using paediatric HIV testing algorithms**

<b>Purpose</b>	<ul style="list-style-type: none"><li>▪ To practise using the paediatric HIV testing algorithms</li></ul>
<b>Introduction</b>	<p>Participants will break into three small groups. Each group should read their assigned case study and answer the questions associated with the case study and both of the two scenarios that follow the case study. Each group should identify one person to record the agreed response to each of the questions. After 15–20 minutes, the large group will be re-convened and the small groups will be invited to present a summary of their answers to the larger group.</p> <p>Participants should use the HIV testing algorithms (Figure 4.1 and Figure 4.2) for reference.</p>

**Exercise 2: Using paediatric HIV testing algorithms, Case studies****Case Study 1:**

A mother comes to the Under-Five clinic with her eight-week-old baby girl. The mother's HIV status is unknown and the baby has never been tested. The baby is breastfeeding and according to her weight and length, seems healthy.

- *Do you offer HIV testing for the baby?*
- *Using the HIV testing algorithm, which test would you conduct?*

**Scenario 1: The test result is positive.**

- *What does the HIV test result mean?*
- *Is any follow-up HIV testing required? If so, which test? When?*

**Scenario 2: The test result is negative.**

- *What does the HIV test result mean?*
- *Does the baby require further HIV testing? If so, which test? When?*

**Case Study 2:**

A mother comes to the clinic because her six-month-old son is very sick. He is admitted to hospital. The mother agrees to participate in a group pre-test session for caregivers of admitted children. The mother has never breastfed.

- *Do you offer HIV testing for the child?*
- *Using the HIV testing algorithm, which test would you conduct?*

**Scenario 1: The test result is positive.**

- *What does the HIV test result mean?*
- *Does the child require further HIV testing? If so, which test? When?*

**Scenario 2: The test result is negative.**

- *What does the HIV test result mean?*
- *Does the child require further HIV testing? If so, which test? When?*

**Case Study 3:**

A grandmother is staying with her two-year-old grandchild, who has been admitted to hospital for malnutrition, diarrhoea and high fever. You learn from the grandmother that the baby's mother died last year. She doesn't know whether or not the mother had an HIV test.

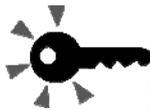
- *Do you offer HIV testing for the child?*
- *Using the HIV testing algorithm, which test would you conduct?*

**Scenario 1: The test result is positive.**

- *What does the HIV test result mean?*
- *Does the child require further HIV testing? If so, which tests? When?*

**Scenario 2: The test result is negative.**

- *What does the HIV test result mean?*
- *Does the child require further HIV testing? If so, which test? When?*



**Module 4: Key Points**

- Without early HIV care and treatment, 30% of HIV-infected children will die before their first birthday and 50% before their second birthday.
- Expanded access to DNA PCR testing in Zambia provides for the diagnosis of HIV in children as young as six weeks old. This allows for the early enrolment in life-saving care and treatment.
- The same HIV antibody tests that are used in adults can be used in children but can only be used to definitively diagnose HIV in a child 18 months of age or older. HIV antibody testing can determine if a child less than 18 months of age has been exposed to HIV.
- Children less than 18 months of age known to be HIV-exposed (either because their mother is known to be HIV-infected or because they tested HIV antibody positive) should be tested using DNA PCR testing.
- Provide all caregivers with post-test counselling, regardless of the test results. All children who are HIV-exposed or HIV-infected must be referred for life-saving care and treatment, including ART if eligible.
- Because of the possibility of HIV transmission via breast milk (if the mother is or becomes infected with HIV), breastfed children will need to be re-tested three months after complete cessation of all breastfeeding.
- Paediatric HIV testing can be an ongoing process. It is important that healthcare workers follow up with children and families until the final HIV infection status is determined.
- The MoH decided to rollout paediatric PITC to address the high prevalence of HIV among children admitted to hospital and other healthcare facilities and to ensure these children were enrolled in care and treatment. The MoH recommends a phased implementation of paediatric testing and counselling services, with priority placed on initiating services for children most at risk for HIV.
- The algorithms for diagnosis must be followed carefully to ensure an accurate determination of the child's HIV status.

## **References and Resources**

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Republic of Zambia Ministry of Health. (2006). National Guidelines for HIV Counselling and Testing.

Republic of Zambia Ministry of Health. (2007). *Zambian Guidelines for Antiretroviral Therapy of HIV Infection in Infants and Children: Towards Universal Access.*

Republic of Zambia Ministry of Health. (2009). National Guidelines for Paediatric Provider-initiated HIV Testing and Counselling.

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- <sup>1</sup> Kankasa, C., Carter, R.J., Briggs, N., Bulterys, M., Chama, E., Cooper, E.R., et al. (2009). Routine offering of HIV testing to hospitalized pediatric patients at University Teaching Hospital, Lusaka, Zambia: Acceptability and feasibility. *Journal of Acquired Immune Deficiency Syndrome*, 51(2), 202-208.

# Module 5      Pre- and Post-test Counselling for Paediatric HIV Testing

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**Total Module Time:**      310 minutes (5 hours 10 minutes)

## **Learning Objectives**

**After completing this module, participants will be able to:**

- Discuss the integration of paediatric PITC as a routine component of paediatric care.
- Conduct the pre-test sessions for individuals and groups.
- Conduct the post-test session for caregivers of children who have been tested for HIV using HIV antibody testing.
- Conduct the post-test session for caregivers of children who have been tested for HIV using DNA PCR testing.

### **Session 5.1: Pre-test Information and Counselling for HIV Testing in Children**

### **Session 5.2: Post-test Counselling: HIV-antibody Testing in Children**

### **Session 5.3: Post-test Counselling: HIV DNA PCR Testing**

## **Session 5.1      Pre-test Information and Counselling for HIV Testing in Children**

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### **Session Objectives**

**After completing this session, participants will be able to:**

- Discuss the integration of paediatric PITC as a routine component of paediatric care.
- Conduct the pre-test sessions for individuals and groups.

### **Group Pre-test Sessions**

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Group pre-test sessions can be very helpful because they provide information to a number of caregivers at one time, allowing healthcare workers more time to see patients and reducing wait times. Additionally, group sessions provide opportunity for mutual support and peer education.

Individual pre-test counselling is appropriate if the situation warrants it, e.g. if requested by the caregiver, if the child is too ill for the caregiver to leave the bedside or in small facilities where the volume of clients is not large enough to warrant group pre-test sessions. Every effort should be made to provide privacy for individual sessions.

Pre-test sessions may be incorporated into routine services within the clinic or facility. For example, group pre-test sessions can be routinely scheduled at an Under-Five clinic or at certain times of the day in malnutrition wards. Because some caregivers may not be comfortable in a group setting, counsellors should respect requests for individual pre-test counselling.

### **Key Skills for Speaking to Groups**

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While many of the counselling skills can also be used in group sessions, there are a few additional points to remember when speaking in front of a group, such as during a pre-test session:

- The group pre-test session counsellor should plan the session ahead of time and practise what will be said.
- It is best to conduct group pre-test sessions in a quiet room with limited disruptions. Group pre-test sessions should not be conducted in waiting areas or other public areas if possible.
- Do not stand behind a desk or other furniture.
- Encourage participants to sit in a semi-circle to make it more comfortable to talk and less like a classroom. The counsellor should be

part of the semi-circle and be able to make eye contact with everyone. No one should be staring at the counsellor's back.

- Speak loudly enough so everyone can hear. Do not shout.
- The counsellor should start by introducing her or himself and explaining the goals and content areas of the discussion; ask if there are any questions before starting.
- Interact with participants and engage them by moving around the room, asking questions, and asking people to share personal stories/concerns, etc. if they feel comfortable. The counsellor should feel free to share a personal anecdote about her or himself to make others feel comfortable.
- Acknowledge that the people attending will know something about the topic being discussed. Encourage them to share what they know and use it as an opportunity to identify and correct any misconceptions.
- Make eye contact with all members of the group.
- Check in regularly to make sure participants are engaged and understand the messages.
- Pay attention to people who seem shy or quiet and emphasise that everyone's personal experiences, questions and concerns are important.
- Use visual aids and avoid lecturing.
- The counsellor should encourage participants to speak with her or him in private afterward if they have concerns they do not want to share with the group.
- Ask group participants to summarise what they have learned at the end.
- Always leave time for questions and review anything that was not understood completely.

While some of these suggestions may not be practical to implement in some settings or with some groups, the recommendations are useful for a broad range of situations in which a counsellor will present to a group and lead a group discussion.

## **Pre-test Session**

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The purpose of the pre-test session is to discuss basic information about the risk of infection, the benefits of HIV testing and the steps in the HIV testing procedure so caregivers can make an informed decision about having the child tested. Nurses, midwives, nurse counsellors, doctors, medical licentiates, clinical officers, counsellors, lay counsellors and social workers can provide pre-test counselling. Pre-test sessions can be conducted in groups, or individually, depending on the circumstances.

Counsellors should adapt the pre-test session to the needs of the individual or group. For example, counselling for a mother with a young baby will differ from counselling for a caregiver of an older child because testing for HIV is different in children less than 18 months and/or in those who are breastfeeding than it is for older, non-breastfeeding children.

Counsellors must be prepared to fully discuss HIV testing with the adolescent as well as the caregiver. Adolescents should hear the pre-test session either alone or in a group specific for adolescents, rather than in a mixed group.

The information given in the pre-test session depends on:

- Whether the pre-test information will be given in a group or an individual session. Individual sessions can be adapted to specifically meet the needs of one individual, while group pre-test sessions need to cover all of the topics.
- Whether attendees are caregivers of children less than 18 months of age, 18 months of age or older, or a mixture of the two.
- Whether the child/children to be tested are adolescents.

For additional information on pre-test counselling considerations for older children and adolescents, see Appendix 3-G: Specific Counselling Guidance for Children and Adolescents (in Module 3).

**Documentation**

Record attendance at the pre-test session and test result in the child's *Under-Five Card*, medical record and the *General HIV Testing and Counselling Register* according to standard policy.

The key points for the pre-test session are listed in Table 5.1. The pre-test session generally takes about 30–45 minutes. If there are people in the group who have additional questions, follow up with individual or small group sessions for those individuals.

**Table 5.1: Key points for pre-test counselling**

Objective	Script
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>■ <i>Introduce yourself.</i></li> <li>■ I am _____ (name/occupation) and will be talking with you about HIV testing for your child.</li> <li>■ I want everyone to feel comfortable asking questions today so you have the information you need.</li> </ul>
<p><b>Ask what they may already know about HIV or PMTCT.</b></p>	<ul style="list-style-type: none"> <li>■ Many of us know some things about HIV and many of us are living with HIV, caring for someone with HIV or know someone living with HIV.</li> <li>■ Can one of you tell the group what HIV is?</li> <li>■ What is AIDS?</li> <li>■ How is HIV passed from one person to another?</li> <li>■ How can HIV be prevented?</li> <li>■ Can someone tell us what they know about care and treatment for adults and children living with HIV?</li> <li>■ What about care for pregnant women?</li> <li>■ <i>Clarify and fill in the gaps to make sure that participants have a basic understanding of HIV.</i></li> </ul>

Objective	Script
<p><b>Discuss the reasons why HIV testing and counselling is recommended for children.</b></p>	<ul style="list-style-type: none"> <li>■ HIV testing for children is routine in Zambia. This means that HIV testing is recommended for all children as a normal part of their health care.</li> <li>■ If a mother has HIV infection, the infection can be passed on to her child during pregnancy, during childbirth and after delivery by breastfeeding. Not all children get HIV, but some babies will become infected. In order to know if a child is infected or not, HIV testing is needed.</li> </ul>
<p><b>Discuss the benefits of testing and counselling.</b></p>	<ul style="list-style-type: none"> <li>■ It's important to know the HIV status of your child to provide your child with the best care available. There is no cure for HIV, but HIV treatment is available. Treatment lowers the risk of getting sick or dying from HIV, and many people on treatment are living long, healthy lives.</li> <li>■ Children with HIV infection who are <i>not</i> treated can become very ill quickly. Because HIV disease can get worse quickly in children, it's important that we identify HIV infection in children as early as possible so that the child can be protected and treated.</li> <li>■ Knowing your child's HIV status helps you and your family to plan your future together. For many families, knowing their status relieves them of the worry that comes from uncertainty.</li> </ul>
<p><b>Discuss confidentiality.</b></p>	<ul style="list-style-type: none"> <li>■ The result of the HIV test is confidential; it is shared only with those professional healthcare workers who need this information in order to care for your child.</li> <li>■ When your child's result is ready, I'll talk with you by yourself, in private, to give you the result and explain what the result means. We will also talk about and arrange for the care that you and the child need. I will answer any questions you have.</li> </ul>
<p><b>Describe how the test is done.</b></p>	<ul style="list-style-type: none"> <li>■ This test is called a (rapid) HIV antibody test. It is a simple test that can be done with just a few drops of blood. A very small needle is used to prick either your child's heel, toe or finger. It is not very painful.</li> <li>■ The results of the test are ready in less than one hour.</li> </ul>

Objective	Script
<p><b>Describe the meaning of test results.</b></p>	<ul style="list-style-type: none"> <li>■ Let's talk about what the test result may mean:</li> </ul> <p><i>For the child</i></p> <ul style="list-style-type: none"> <li>■ The meaning of the test result depends on the age of the child and whether or not the child is breastfeeding. If your child is less than 18 months of age or is breastfeeding, it may be necessary to do more testing to know the child's HIV status.</li> <li>■ Even if more tests need to be done, knowing the results of the first test will help you to plan care and follow-up for your child.</li> <li>■ If your child is more than 18 months of age and has not been breastfeeding, then the HIV antibody test will tell us your child's HIV status. A positive test means that your child has HIV and needs treatment. A negative test means that your child does not have HIV.</li> </ul> <p><i>For the mother</i></p> <ul style="list-style-type: none"> <li>■ A positive HIV antibody test in a child usually means that the child's mother is HIV-infected.</li> <li>■ Some mothers may already know their status. If you do not know your status, let us know. We can offer you an HIV test today, along with your child so that you know for sure.</li> </ul>
<p><b>Discuss availability of care and treatment.</b></p>	<ul style="list-style-type: none"> <li>■ Remember: HIV treatment works very well. In most cases, HIV treatment means that people living with HIV can lead long and healthy lives. This is why we are asking you to get your child tested and why doctors and nurses recommend testing for your children.</li> <li>■ If you have or your child has HIV infection, we will arrange for you to receive the support, care and treatment that you need. Treatment for HIV is available and is free for adults and children.</li> <li>■ We will also help you learn about HIV and HIV treatment, to care for yourself and your child at home, help you with a follow-up plan and provide ongoing support.</li> </ul>

Objective	Script
<p><b>Discuss the right to decline the test.</b></p>	<ul style="list-style-type: none"> <li>■ HIV testing is strongly recommended for all children in Zambia because it allows children with HIV to access life-saving treatment. However, you have the right to tell us that you do not want your child to be tested.</li> <li>■ If you say no to the test, we will still take care of you and your child. We will also try to address your concerns about HIV testing. However, if your child has HIV and your child’s doctor does not know about it, your child’s health may be endangered.</li> </ul>
<p><b>Close the session.</b></p>	<ul style="list-style-type: none"> <li>■ Are there any questions?</li> <li>■ What concerns do you have about HIV testing for your child?</li> <li>■ HIV testing is a regular part of child health care. As part of your child’s care today we will test her or him for HIV.</li> <li>■ If you have a question or information you would like to share privately, you will be able to do so before the test is conducted.</li> </ul>

## **Informed Consent**

As part of the session, the counsellor must ensure that the elements of informed consent — benefits/risks of testing, right to confidentiality, right to decline testing — are included in the counselling process. Once the counsellor has ascertained that the caregiver has heard the pre-test information, has no more questions and no objections to testing, the healthcare worker should let the caregiver know that as part of today’s exam, blood will be taken by heel, toe or finger-prick for the HIV test.

The counsellor should convey to the caregiver that testing is strongly recommended because it provides access to life saving care and treatment. Given the benefits of testing, the HIV test will be conducted unless the caregiver explicitly declines to have the child tested.

As minors, children cannot legally provide informed consent. Basic information about the testing process should be discussed with children, taking into account their capacity to understand the information. For example, the counsellor might explain to an eight-year-old child that testing a few drops of blood will help the doctor know how best to take care of her. Note that disclosure of HIV status to a child is a process; it should not begin during a time of crisis. Rather, if a child is diagnosed with HIV, counselling about the disclosure process begins with the caregiver after the family has had time to process the news. Appendix 3-F in Module 3 provides more information about talking with children.

Consent to HIV testing for children under 16 years of age must be provided by an adult caregiver or guardian. However, young people under the age of 16 who are considered “mature minors” may consent for their own testing and care. Mature minors are defined as those who are:

- Married
- Pregnant
- Caregivers
- Heads of household
- Engaged in behaviour that puts them at risk for HIV (e.g. unprotected sex)
- Child sex workers

### **What to do if testing is declined:**

Caregivers are entitled to decline HIV testing for themselves or for their child. Although HIV testing is strongly recommended, the caregivers’ decision should be respected. If the HIV test is declined, the counsellor should provide additional, individual counselling to:

- Further explore concerns about testing, using counselling skills discussed in Session 3.2.
- Clarify the importance of knowing the child’s status to provide the best healthcare.
- Encourage the caregiver to reconsider testing.

Exploratory questions to consider include:

- *Would you be willing to share your reasons for deciding not to have your child tested today?*
- *What do you know about the benefits of knowing your child’s HIV status?*
- *What would have to change before you allowed your child to have the test?*

Continue with pre-test counselling. If HIV testing is still declined:

- Let the caregiver know your door is open, and that she or he can decide to have the child tested anytime.
- If available, provide the caregiver with a take home flyer.
- Arrange for further individual (or couple) pre-test counselling at the next visit (for outpatients) or the next day (for hospitalised patients).

If the caregiver refuses testing after further counselling, the counsellor should let the caregiver know that testing for the child will always be available. The child can be tested when the caregiver is ready. This decision not to test should be noted on the *Under-Five Card* and in the medical record so that healthcare workers can follow up during subsequent clinic visits.

**Exercise 1: Group pre-test session:**

<b>Purpose</b>	▪ To practise providing group pre-test information
<b>Introduction</b>	<p>In this exercise, participants will practise planning and delivering a group pre-test session for caregivers. The exercise provides opportunity to learn the content of the pre-test session and to practise the active listening and learning skills discussed earlier.</p> <p>First participants will break into groups of four to prepare a group pre-test session for caregivers, based on the scenario below. The small groups should refer to the counselling cue cards or the information in this module to help guide the session. The groups will have 15–20 minutes to prepare their presentations.</p> <p>Participants will then reconvene as a large group and some of the small groups will be invited to present their pre-test session in front of the large group.</p>

**Exercise 1: Group pre-test session  
Scenario for role play**

You and your colleagues will be leading a paediatric HIV pre-test session at the hospital this morning. There are 15 women in the group (mothers, grannies, other caregivers). The women are with children ranging in age from six weeks to five years. Prepare a group pre-test session for this group of women.

## Session 5.2 Post-test Counselling: HIV-antibody Testing in Children

### Session Objective

After completing this session, participants will be able to:

- Conduct the post-test session for caregivers of children who have been tested for HIV using HIV antibody testing.

### Overview of Post-test Counselling

Post-test counselling always includes:

- Delivery of results, discussion and explanation of the meaning of the results
- Attention to the caregiver's ability to process and cope with the information provided
- Assessment of sources of caregiver support system, identifying potential sources of social support, referring and providing support
- Consideration of CTX prophylaxis (depending on the child's status, age, and other factors)
- Infant and young child feeding (IYCF) counselling (when appropriate)
- Discussion of post-test follow-up, which will vary according to the results of the test, the age of the child, infant feeding counselling needs and the specific needs of the child and family. If there are other caregivers for the child, discuss their counselling needs and ask who will be responsible for bringing the child to clinic visits.
- Discussion of the care and treatment needs of the mother and other family members

**Table 5.2: Interpreting HIV antibody Test Results**

<b>If the child is less than 18 months:</b>	
<b>Result (breastfeeding status)</b>	<b>Meaning</b>
<b>A negative antibody test (if all breastfeeding stopped at least three months ago)</b>	The child is not HIV-exposed or HIV-infected.
<b>A negative antibody test (if child is currently breastfeeding or stopped breastfeeding within the past three months)</b>	The child is either HIV-uninfected or is in the window period due to recent (i.e., within the past three months) exposure to HIV through breastfeeding.  Ask the caregiver and child to return three months after complete cessation of breastfeeding for re-testing.
<b>A positive antibody test</b>	The child is HIV-exposed, the child was born to a woman living with HIV. Conduct a virological test (DNA PCR) to determine

	HIV diagnosis. For a child less than 18 months of age, the HIV antibody test cannot distinguish between HIV-exposure and HIV-infection.
<b>If the child is 18 months or older:</b>	
<b>Result (breastfeeding status)</b>	<b>Meaning</b>
<b>A negative antibody test (if all breastfeeding stopped at least three months ago)</b>	The child is not HIV-infected.
<b>A negative antibody test (if child is currently breastfeeding or stopped breastfeeding within the past three months)</b>	The child is either HIV-uninfected or is in the window period due to recent (i.e., within the past three months) exposure to HIV through breastfeeding.  Ask the caregiver and child to return three months after complete cessation of breastfeeding for re-testing.
<b>A positive antibody test</b>	The child is HIV-infected. Confirmatory testing should be conducted to validate the first test.

## Record the Results

Enter the HIV test result on the child's *Under-Five Card* and medical record. After the session, enter the post-test counselling date in the *HIV Counselling and Testing Register*. The back of the register has a summary page to enter information for HIV-infected children, including important information on follow-up care and support and referrals to services.

## Post-test Counselling Session — Negative HIV Antibody Test

The following table provides guidance to counsellors leading the post-test HIV counselling session for a caregiver receiving a child's negative HIV antibody test result. Note that additional information on infant feeding counselling can be found in Module 3.

**Table 5.3: Post-test Counselling for Negative HIV Antibody Test**

Objective	Script
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>■ <i>Introduce yourself.</i></li> <li>■ I am _____ (name/occupation) and will be talking with you about your child’s HIV test.</li> <li>■ I want you to feel comfortable asking questions today so you have the information you need.</li> </ul>
<p><b>Provide the test result.</b></p> <ul style="list-style-type: none"> <li>■ <b>Discuss the meaning of the test result for the child according to age and breastfeeding status.</b></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Your child’s HIV antibody test result is negative.</b></li> </ul> <p><i>If not breastfed or if breastfed by HIV-uninfected caregiver</i></p> <ul style="list-style-type: none"> <li>■ Your child does not have HIV.</li> <li>■ If you were giving CTX, you may stop.</li> <li>■ It is important that you continue to bring your child to the clinic to get regularly scheduled immunisations and care.</li> </ul> <p><i>If breastfed currently, or within the last three months, by HIV-infected caregiver or caregiver with unknown HIV status</i></p> <ul style="list-style-type: none"> <li>■ The test is negative. We did not find HIV antibody in your child’s blood.</li> <li>■ <i>If the child has breastfed in the past three months:</i> Because your child breastfed in the three months prior to this test, there is a small possibility that your child is actually infected, but it just doesn’t yet show on the test. It can take as long as three months from the time of infection until the test shows that an infection is present.</li> <li>■ <i>If the child is still breastfeeding:</i> As you are still breastfeeding it is still possible for your child to become infected from breast milk. I know you would like to know the final HIV status right now, but it’s important that we repeat the test after you are no longer breastfeeding to make sure your child remains uninfected.</li> <li>■ The test should be repeated three months after you have completely stopped breastfeeding. <i>If mother’s status is unknown, encourage mother to undergo PITC.</i></li> <li>■ Because we can’t be certain yet about your child’s HIV status, you should continue (start) to give your child CTX. This medicine will help prevent infections. <i>Discuss adherence,</i></li> </ul>

Objective	Script
	<p><i>review dosing and instructions.</i></p> <ul style="list-style-type: none"> <li>■ It is important that you continue to bring your child to the clinic to get regularly scheduled immunisations and care and to get HIV testing for your child again after breastfeeding has stopped. We'll arrange the appointment(s) before you go.</li> </ul>
<p><b>Discuss IYCF.</b></p> <ul style="list-style-type: none"> <li>■ Discuss IYCF according to breastfeeding status and age of child.</li> </ul>	<ul style="list-style-type: none"> <li>■ How are you feeding your child?</li> </ul> <p><i>Breastfeeding mother with HIV</i></p> <ul style="list-style-type: none"> <li>■ How is breastfeeding going for you?</li> <li>■ Your child has tested negative, but if you are living with HIV, there is a risk of passing on HIV through breast milk. It is important to give your child the ARV prophylaxis as prescribed to lower this risk. <i>Discuss dosing, instructions and adherence.</i></li> <li>■ It is also important to give the baby CTX because this medicine prevents other infections that can make the baby sick.</li> <li>■ There are ways to protect your baby from HIV during breastfeeding. Most importantly, if you are living with HIV and HIV treatment has been recommended, the treatment will lower the risk that the child will be infected through breastfeeding.</li> <li>■ You will need to take care of yourself. If HIV treatment has been recommended for you, you should know that this treatment is important for your health and it lowers the risk that your baby will be infected with HIV through breastfeeding. You should take the medicine exactly as prescribed. The _____ (<i>name of clinic</i>) will discuss this with you.</li> <li>■ It is important for you to make sure you are taking steps to ensure you stay healthy while still breastfeeding.</li> </ul> <p><i>Breastfeeding mother with HIV, whose child is less than six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Check if she breastfeeds exclusively; ask about mixed feeding. The infant should not be given any other liquids or foods other than breast milk (not even water or formula!). Ask how she handles pressure from friends and family to give her baby other liquids or foods. Role play with her if she would find it helpful.</i></li> </ul>

Objective	Script
	<ul style="list-style-type: none"> <li>■ <i>Check if she breastfeeds on demand and for as long as the infant wants.</i></li> <li>■ <i>Observe a breastfeed and assess the mother's breasts for abnormalities; advise appropriately. Ask her to return to the clinic if she has signs of engorgement, nipple cracks or any other breast condition.</i></li> </ul> <p><i>Breastfeeding mother with HIV, whose child is approaching six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Introduce complementary foods at six months. Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> <li>■ <i>Continue breastfeeding until the child is 12 months of age.</i></li> </ul> <p><i>Breastfeeding mother with HIV, whose child is approaching 12 months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>If your child is HIV uninfected or of unknown status, breastfeeding should stop gradually, over the course of one month. Discuss how to wean.</i></li> <li>■ <i>If the child is HIV-infected, breastfeeding should continue for 24 months and beyond.</i></li> <li>■ <i>Once you have weaned your child, substitute animal milk (such as cow, goat or sheep) for breast milk.</i></li> <li>■ <i>Do not wean your child if you do not have enough food or milk to feed her or him. Evaluate safety of weaning from breast milk. Ask about:</i> <ul style="list-style-type: none"> <li>■ <i>Where will you get animal milk for your child?</i></li> <li>■ <i>If purchasing: How much money can you afford for milk each month?</i></li> <li>■ <i>If family has access to farm animals: Is the supply regular? Will you be able to boil the milk before it is served?</i></li> </ul> </li> <li>■ <i>Provide referrals for financial or nutritional support, if appropriate and available.</i></li> </ul> <p><i>Non-breastfeeding caregiver with child less than six months</i></p> <ul style="list-style-type: none"> <li>■ <i>If your child is <u>not breastfeeding</u>, we can talk about formula feeding. Discuss correct and hygienic formula preparation.</i></li> <li>■ <i>Introduce complementary foods at six</i></li> </ul>

Objective	Script
	<p>months. <i>Describe complementary foods. Discuss how to provide child with an adequate diet.</i></p> <p><i>All mothers and caregivers with children six months of age or older</i></p> <ul style="list-style-type: none"> <li>■ What is your child eating? What did she eat today? How about yesterday?</li> <li>■ What problems, if any, are you having?</li> <li>■ Your child should take an “<b>adequate diet</b>”, that is, she or he should eat four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods). “Milk” refers to breast milk or animal milk.</li> <li>■ If your child is not breastfeeding it is particularly important that she or he has some form of milk every day (such as that from cow, sheep or goat milk). Unpasteurised milk needs to be boiled before it is served to a child or an adult.</li> <li>■ We can talk about ways to make sure that the way you feed your child keeps her or him as healthy as possible, for example, using clean water and preparing food safely.</li> </ul> <p><i>Mother is HIV-uninfected or does not know her HIV status</i></p> <ul style="list-style-type: none"> <li>■ Breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding for up to 24 months or beyond.</li> <li>■ What questions do you have about breastfeeding?</li> <li>■ <i>If the child is less than six months old: What may make it difficult for you to breastfeed exclusively, that is, to not give your baby foods or liquids other than breast milk?</i></li> <li>■ There is a high chance of infecting your child if you become HIV-infected while breastfeeding. It is important for you to take steps to prevent HIV and other STIs while still breastfeeding. <i>Discuss safer sex, negotiation of condom use and partner testing.</i></li> </ul> <ul style="list-style-type: none"> <li>■ We recommend that you learn your HIV</li> </ul>

Objective	Script
	<p>status. Provide pre-test information and address mother's concerns. Provide HIV testing (with consent).</p>
<p><b>Plan child's follow-up care.</b></p> <ul style="list-style-type: none"> <li>■ HIV testing (if needed)</li> <li>■ Under-Five clinic</li> <li>■ How to cancel/change appointments</li> <li>■ What to do if child is sick</li> </ul>	<p><i>Explain:</i></p> <ul style="list-style-type: none"> <li>■ <i>What to expect at the appointment</i></li> <li>■ <i>Date, place, time of appointment(s)</i></li> <li>■ <i>How to change the appointment</i></li> <li>■ <i>What to do if the child is ill</i></li> <li>■ <i>Importance of well child visits</i></li> </ul>
<p><b>Review care and treatment for the mother and other family members.</b></p>	<p><i>Based on individual circumstances, review status and need for follow-up for:</i></p> <ul style="list-style-type: none"> <li>■ <i>HIV testing</i></li> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>STI/HIV prevention</i></li> <li>■ <i>Other medical or psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul> <p><i>Discuss:</i></p> <ul style="list-style-type: none"> <li>■ <i>Psychosocial or material support from friends, family or community organisations</i></li> <li>■ <i>Other caregivers for the child; evaluate need for counselling for other caregivers</i></li> </ul>
<p><b>Assess caregiver's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>■ I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about? <i>Ask caregiver to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>■ <i>Meaning of the test result</i></li> <li>■ <i>Confirmatory or repeat HIV testing (if required)</i></li> <li>■ <i>CTX</i></li> <li>■ <i>Infant feeding</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>HIV/STI prevention</i></li> <li>■ <i>Psychosocial/material support</i></li> <li>■ <i>Follow-up care and appointments for child</i></li> <li>■ <i>Follow-up care and counselling for mother, caregiver or other family members</i></li> </ul> </li> <li>■ Is there anything else you'd like to discuss?</li> </ul>

## Post-test Counselling Session — Positive HIV Antibody Test

The following table provides guidance to counsellors leading the post-test HIV counselling session for a caregiver receiving a positive HIV antibody test result for a child who is 18 months of age or older. If the mother is receiving the result, counselling will also need to include a discussion of her HIV status, testing, psychosocial support and referral for care.

**Table 5.4: Post-test Counselling for Positive HIV Antibody Test 18 Months or Older**

Objective	Content
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>■ <i>Introduce yourself.</i></li> <li>■ I am _____ (name/occupation) and will be talking with you about your child's HIV test.</li> <li>■ I want you to feel comfortable asking questions today so you have the information you need.</li> </ul>
<p><b>Provide test result.</b></p> <ul style="list-style-type: none"> <li>■ Discuss the meaning of test result for the child.</li> <li>■ Offer support and allow time for processing the information and discussing feelings.</li> <li>■ Ensure understanding that HIV is a treatable, lifelong disease.</li> <li>■ Discuss availability of treatment for the child.</li> </ul>	<ul style="list-style-type: none"> <li>■ Your child's HIV antibody test result is <b>positive</b>. This means your child is HIV-infected.</li> <li>■ This positive test result means that you (<i>if speaking to the biological mother</i>) are also very likely to be infected with HIV. It is possible that the child's father also has HIV. It is important that your partner and any other children you have get tested and start treatment for HIV if it is needed.</li> <li>■ We have plenty of time to discuss this result. Let's discuss what you understand about this and how you are feeling. <i>Allow the caregiver time to consider the results, discuss feelings and ask questions.</i></li> <li>■ We will need to do another antibody test to make sure that the result is the same.</li> <li>■ HIV is a lifelong disease. Although we can't cure HIV, treatment is available and it works very well. Today, many children and adults with HIV live healthy, long lives.</li> <li>■ Care, treatment and support are available for your child. We'll arrange care for your child and for you and others in your family (as needed) before you leave today. It is very important that your child be evaluated for treatment as soon as possible to make sure your child can have a healthy life.</li> </ul>

Objective	Content
<p><b>Find out more about the support system and provide support for the caregiver.</b></p>	<ul style="list-style-type: none"> <li>■ How are you coping right now?</li> <li>■ Are there friends or family members aware of your/your child's HIV status? <i>Or, if newly diagnosed: Are there friends or family members you can tell about your/your child's HIV status?</i></li> <li>■ Who helps to take care of the child? Who will bring the child back to clinic? Any problems that you see in bringing the child back to the clinic?</li> <li>■ Do you have any support at home? Do you have someone who you can talk to about your or your child's HIV status?</li> <li>■ Where are you going after this visit? <i>Assess need for community services or support and provide information/referrals and/or follow-up counselling.</i></li> <li>■ At the end of our talk, we can discuss the next steps for your and your child's care.</li> </ul>
<p><b>Discuss continuing CTX.</b></p>	<ul style="list-style-type: none"> <li>■ You should continue (or start) giving your child CTX daily. This is an important medicine that protects your child from some common infections. We will tell you how you can get this for your child. <i>Discuss adherence, review dosing and provide or review instructions.</i></li> </ul>
<p><b>Discuss young child feeding.</b></p>	<ul style="list-style-type: none"> <li>■ What is your child eating? What did she eat today? How about yesterday?</li> <li>■ What problems, if any, are you having?</li> <li>■ If your child is still breastfeeding, we recommend that you continue to breastfeed to 24 months or more. It is important for you to make sure you are taking steps to ensure you stay healthy while still breastfeeding.</li> <li>■ If your child is not breastfeeding it is particularly important that she or he has some form of milk every day (such as that from cow, sheep or goat milk). Unpasteurised milk needs to be boiled before it is served to a child or an adult.</li> <li>■ Your child should take an <b>“adequate diet”</b>, that is, she or he should eat four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods). “Milk” refers to breast milk or animal milk.</li> </ul>

Objective	Content
	<ul style="list-style-type: none"> <li>■ We can talk about ways to make sure that the way you feed your child keeps her or him as healthy as possible, for example, using clean water and preparing food safely.</li> </ul>
<p><b>Discuss the meaning of a positive test for the mother.</b></p>	<p><i>If the mother's HIV status is unknown</i></p> <ul style="list-style-type: none"> <li>■ We also need to discuss your health. What is your understanding of what your child's test result means for your health?</li> <li>■ The fact that your child has a positive HIV antibody test means that it is very likely that you have HIV. Most young children with HIV got it from their mothers during pregnancy, labour or during breastfeeding. <i>Allow the caregiver time to process this information and react.</i></li> <li>■ Have you already been tested? If not, may we discuss doing an HIV test? It's important for your health for us to confirm your infection status by conducting an HIV test today. <i>Provide pre-test information. If she agrees to testing, proceed with counselling and testing.</i></li> </ul> <p><i>If the mother is aware she is living with HIV</i></p> <ul style="list-style-type: none"> <li>■ Can we discuss the care you are receiving?</li> <li>■ Have you been to the clinic for HIV care for yourself? If so, when was your last visit?</li> <li>■ Do you have an appointment for your next (first) visit? If so, when is it?</li> <li>■ How are things going with your HIV care?</li> <li>■ Are you on ART?</li> <li>■ It is important to follow through with your own care so that you can stay healthy and take care of your family.</li> <li>■ <i>Discuss medical care and follow-up appointments, especially:</i> <ul style="list-style-type: none"> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>STI prevention</i></li> <li>■ <i>Other medical and psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul> </li> </ul>
<p><b>Discuss meaning of test for other family members.</b></p>	<ul style="list-style-type: none"> <li>■ Let's discuss whether or not there are other members of your family who would benefit from having an HIV test. <ul style="list-style-type: none"> <li>■ Does your child have brothers or sisters? Tell me about their ages and their health. Have any of the children had an HIV test?</li> </ul> </li> </ul>

Objective	Content
	<ul style="list-style-type: none"> <li>■ Do you have a husband, partner or partners with whom you have a sexual relationship? Has your partner had an HIV test? Do you feel you could discuss your status and HIV testing with your partner(s)?</li> <li>■ Until your partner is tested you should use condoms. If he tests HIV-negative, you should continue to use condoms to ensure he stays HIV-negative. Is it possible for you and your partner to only have sex with each other? <i>Discuss the importance of using condoms.</i></li> <li>■ <i>Provide counselling related to disclosure as needed.</i></li> </ul>
<p><b>Make appropriate referrals for HIV care and treatment for the child, the mother, and any other family members as needed. Explain what to expect at the visits.</b></p> <ul style="list-style-type: none"> <li>■ Date, place, time of appointments</li> <li>■ What to expect at the appointments</li> <li>■ How to change the appointments</li> <li>■ What to do if the child or mother is ill</li> </ul>	<ul style="list-style-type: none"> <li>■ HIV care for your child will be provided at (<u>name of clinic</u>).</li> <li>■ For your (<i>mother's</i>) care, you will go to the (<u>name of clinic</u>).</li> <li>■ At the clinic, they will evaluate you/your child, explain the process of decision-making regarding treatment, discuss options with you and answer any questions you have. It is very important to make sure that your child gets treatment as soon as possible so that she or he is able to live a healthy life. <i>Explain:</i> <ul style="list-style-type: none"> <li>■ <i>Date, place, time of appointments</i></li> <li>■ <i>How to change the appointments</i></li> <li>■ <i>What to do if the child or mother is ill</i></li> <li>■ <i>Importance of well child visits</i></li> </ul> </li> </ul>
<p><b>Review care and treatment for the mother and other family members.</b></p>	<p><i>Based on individual circumstances, review status and need for follow-up for:</i></p> <ul style="list-style-type: none"> <li>■ <i>HIV testing</i></li> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Other medical or psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul>
<p><b>Assess caregiver's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>■ I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about? <i>Ask caregiver to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>■ <i>Meaning of the test result</i></li> <li>■ <i>Confirmatory or repeat HIV testing (if required)</i></li> <li>■ <i>CTX</i></li> </ul> </li> </ul>

Objective	Content
	<ul style="list-style-type: none"> <li>■ <i>Young child feeding</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>HIV/STI prevention</i></li> <li>■ <i>Psychosocial/material support</i></li> <li>■ <i>Follow-up appointments for child</i></li> <li>■ <i>Follow-up care and counselling for mother, caregiver or other family members</i></li> <li>■ <i>Is there anything else you'd like to discuss?</i></li> </ul>

The following table provides guidance to counsellors leading the post-test HIV counselling session for a caregiver receiving a positive HIV antibody test result for a child who is less than 18 months of age. Like the HIV antibody test result for a child 18 months or older, if the mother is receiving the result, counselling will also need to include a discussion of her HIV status, testing, psychosocial support and referral for care.

**Table 5.5: Post-test Counselling for Positive HIV Antibody Test Less Than 18 Months of Age**

Objective	Script
<b>Introduce yourself and the session.</b>	<ul style="list-style-type: none"> <li>■ <i>Introduce yourself.</i></li> <li>■ I am _____ (name/occupation) and will be talking with you about your child's HIV test.</li> <li>■ I want you to feel comfortable asking questions today so you have the information you need.</li> </ul>
<b>Provide the test result.</b> <ul style="list-style-type: none"> <li>■ Discuss the meaning of test result for the child.</li> <li>■ Offer support and allow time for processing the information and discussing feelings.</li> </ul>	<ul style="list-style-type: none"> <li>■ Your child's HIV antibody test is <b>positive</b>. This means that your child was exposed to HIV during pregnancy, labour or through breast milk, but it does not tell us whether or not your child is infected. To determine your child's HIV status, we need to do at least one more test (maybe more).</li> <li>■ There is treatment available for your child if she or he has HIV, so the earlier we can get the second test done for your child, the better chance she or he will have to live a healthy life.</li> <li>■ This positive test result means that you (<i>if speaking to the biological mother</i>) are also very likely to be infected with HIV. It is possible that the child's father also has HIV. It is important that your partner and any other children you have get tested and start treatment for HIV if it is needed.</li> <li>■ We are here to support you during this time.</li> </ul>

Objective	Script
<p><b>Discuss the process of determining HIV status: DNA PCR testing</b></p>	<ul style="list-style-type: none"> <li>■ The test used to tell us about your child’s infection status is called the DNA PCR test. With this test, we can check your child’s blood for the virus.</li> <li>■ To do the test, I will take a few drops of blood from the baby, just as I did for the HIV antibody test.</li> <li>■ Then I send the blood test to the laboratory and the laboratory will return the results to me in 2–3 weeks (<i>this time period may be different for different sites</i>). Before you go today, I will arrange an appointment for you to return for the test results.</li> </ul>
<p><b>Find out more about the support system and provide support for the caregiver.</b></p>	<ul style="list-style-type: none"> <li>■ How are you coping right now?</li> <li>■ Are there friends or family members aware of your/your child’s HIV status? <i>Or, if newly diagnosed: Are there friends or family members you can tell about your/your child’s HIV status?</i></li> <li>■ Who helps to take care of your child? Who will bring the child back to clinic? Any problems that you see in bringing the child back to the clinic?</li> <li>■ Do you have any support at home? Do you have someone who you can talk to about your or your child’s HIV status?</li> <li>■ Where are you going after this visit? <i>Assess need for community services or support and provide information/referrals and/or follow-up counselling.</i></li> <li>■ At the end of our talk, we can discuss the next steps for your and your child’s care.</li> </ul>
<p><b>Discuss starting CTX.</b></p>	<ul style="list-style-type: none"> <li>■ You should start giving your child CTX daily. This is an important medicine that protects your child from some common infections. We will tell you how you can get this for your child. <i>Discuss adherence, review dosing and provide or review instructions.</i></li> </ul>
<p><b>Discuss IYCF.</b></p> <ul style="list-style-type: none"> <li>■ Discuss IYCF according to breastfeeding status and age of child.</li> </ul>	<ul style="list-style-type: none"> <li>■ How are you feeding your child?</li> <li>■ How is breastfeeding (or formula feeding) going for you?</li> </ul> <p><i>Breastfeeding mother with HIV</i></p> <ul style="list-style-type: none"> <li>■ Your child has been exposed to HIV, but we do not know if she or he is infected with HIV. Since you are living with HIV, it is still possible to pass on HIV through breast milk. It is important that your child get ARV</li> </ul>

Objective	Script
	<p>prophylaxis to lower the risk of passing HIV through breast milk.</p> <ul style="list-style-type: none"> <li>■ It is also important to give the baby CTX because this medicine prevents other infections that can make the baby sick.</li> <li>■ There are ways to protect your baby from HIV during breastfeeding. Most importantly, if you are living with HIV and HIV treatment has been recommended, the treatment will lower the risk that the child will be infected through breastfeeding.</li> <li>■ You will need to take care of yourself. If HIV treatment has been recommended for you, you should know that this treatment is important for your health as well. You should take the medicine exactly as prescribed. The _____ (<i>name of clinic</i>) will discuss this with you.</li> <li>■ It is important for you to make sure you are taking steps to ensure you stay healthy while still breastfeeding.</li> </ul> <p><i>Breastfeeding mother with HIV, whose child is less than six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Check if she breastfeeds exclusively; ask about mixed feeding. The infant should not be given any other liquids or foods other than breast milk (not even water or formula!). Ask how she handles pressure from friends and family to give her baby other liquids or foods. Role play with her if she would find it helpful.</i></li> <li>■ <i>Check if she breastfeeds on demand and for as long as the infant wants.</i></li> <li>■ <i>Observe a breastfeed and assess the mother's breasts for abnormalities; advise appropriately. Ask her to return to the clinic if she has signs of engorgement, nipple cracks or any other breast condition.</i></li> </ul> <p><i>Breastfeeding mother with HIV, whose child is approaching six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Introduce complementary foods at six months. Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> <li>■ <i>Continue breastfeeding until the child is 12 months of age.</i></li> </ul>

Objective	Script
	<p><i>Breastfeeding mother with HIV, whose child is ready for weaning</i></p> <ul style="list-style-type: none"> <li>■ If the DNA PCR test tells us that your child does not have HIV, breastfeeding should stop gradually over the course of one month, after the child has reached 12 months. <i>Discuss how to wean.</i></li> <li>■ If the child is HIV-infected, breastfeeding should continue for 24 months and beyond.</li> <li>■ Do not wean your child if you do not have enough food or milk to feed her or him. <i>Evaluate safety of weaning from breast milk. Ask about:</i> <ul style="list-style-type: none"> <li>■ Where will you get animal milk for your child?</li> <li>■ <i>If purchasing:</i> How much money can you afford for milk each month?</li> <li>■ <i>If family has access to farm animals:</i> Is the supply regular? Will you be able to boil the milk before it is served?</li> </ul> </li> </ul> <p><i>Provide referrals for financial or nutritional support, if appropriate and available.</i></p> <p><i>Non-breastfeeding caregiver with child less than six months</i></p> <ul style="list-style-type: none"> <li>■ If your child is <u>not breastfeeding</u>, we can talk about formula feeding. <i>Discuss correct and hygienic formula preparation.</i></li> <li>■ Introduce complementary foods at six months. <i>Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> </ul> <p><i>All mothers and caregivers with children six months of age or older</i></p> <ul style="list-style-type: none"> <li>■ What is your child eating? What did she eat today? How about yesterday?</li> <li>■ What problems, if any, are you having?</li> <li>■ Your child should take an “<b>adequate diet</b>”, that is, she or he should eat four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods). “Milk” refers to breast milk or animal milk.</li> <li>■ If your child is not breastfeeding it is particularly important that she or he has some form of milk every day (such as that from cow, sheep or goat milk).</li> </ul>

Objective	Script
	<p>Unpasteurised milk needs to be boiled before it is served to a child or an adult.</p> <ul style="list-style-type: none"> <li>■ We can talk about ways to make sure that the way you feed your child keeps her or him as healthy as possible, for example, using clean water and preparing food safely.</li> </ul>
<p><b>Discuss the meaning of a positive test for the mother.</b></p>	<ul style="list-style-type: none"> <li>■ We also need to discuss your health. What is your understanding of what your child's test result means for your health?</li> <li>■ The fact that your child has a positive HIV antibody test means that it is very likely that you have HIV. Most young children with HIV got it from their mothers during pregnancy, labour or during breastfeeding. <i>Allow the caregiver time to process this information and react.</i></li> <li>■ Have you already been tested? If not, may we discuss doing an HIV test? It's important for your health for us to confirm your infection status by conducting an HIV test today. <i>Provide pre-test information. If she agrees to testing, proceed with counselling and testing.</i></li> </ul> <p><i>If the mother is aware she is living with HIV</i></p> <ul style="list-style-type: none"> <li>■ Can we discuss the care you are receiving?</li> <li>■ Have you been to the clinic for HIV care for yourself? If so, when was your last visit?</li> <li>■ Do you have an appointment for your next (first) visit? If so, when is it?</li> <li>■ How are things going with your HIV care?</li> <li>■ Are you on ART?</li> <li>■ It is important to follow through with your own care so that you can stay healthy and take care of your family.</li> <li>■ <i>Discuss medical care and follow-up appointments, especially:</i> <ul style="list-style-type: none"> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>STI prevention</i></li> <li>■ <i>Other medical and psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul> </li> </ul>

Objective	Script
<p><b>Briefly discuss HIV care and treatment.</b></p>	<ul style="list-style-type: none"> <li>■ HIV is a lifelong disease. Although we can't cure HIV, treatment is available and it works very well. Today, people with HIV can live healthy, long lives.</li> <li>■ Care, treatment and support are available for you and for your child, if she or he is infected, for free. We'll arrange care for you and others in your family (as needed) before you leave today.</li> </ul>
<p><b>Discuss the meaning of test for other family members.</b></p>	<ul style="list-style-type: none"> <li>■ Let's discuss whether or not there are other members of your family who would benefit from having an HIV test. <ul style="list-style-type: none"> <li>■ Does your child have brothers or sisters? Tell me about their ages and their health. Have any of the children had an HIV test?</li> <li>■ Do you have a husband, partner or partners with whom you have a sexual relationship? Has your partner had an HIV test? Do you feel you could discuss your status and HIV testing with your partner?</li> </ul> </li> <li>■ <i>Provide counselling related to disclosure as needed.</i></li> </ul>
<p><b>Make appropriate referrals for HIV care and treatment for the child. Explain what to expect at the next visit.</b></p> <ul style="list-style-type: none"> <li>■ Date, place, time of appointment</li> <li>■ What to expect at the appointment</li> <li>■ How to change the appointment</li> <li>■ What to do if the child is ill</li> </ul>	<ul style="list-style-type: none"> <li>■ HIV care for your child is provided at (<u>name of clinic</u>).</li> <li>■ For your (<i>mother's</i>) care, you will go to the (<u>name of clinic</u>).</li> <li>■ At the clinic, they will evaluate you/your child, explain the process of decision-making regarding treatment, discuss options with you and answer any questions you have. It is very important to make sure that your child gets treatment as soon as possible so that she or he is able to live a healthy life. <i>Explain:</i> <ul style="list-style-type: none"> <li>■ <i>Date, place, time of appointments</i></li> <li>■ <i>How to change the appointments</i></li> <li>■ <i>What to do if the child or mother is ill</i></li> <li>■ <i>Importance of well child visits</i></li> </ul> </li> </ul>
<p><b>Assess caregiver's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>■ I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about? <i>Ask caregiver to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>■ <i>Meaning of the test result</i></li> <li>■ <i>Repeat testing for the child</i></li> <li>■ <i>Confirmatory or repeat HIV testing (if required)</i></li> <li>■ <i>CTX</i></li> </ul> </li> </ul>

Objective	Script
	<ul style="list-style-type: none"> <li>■ <i>Infant and young child feeding</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>HIV/STI prevention</i></li> <li>■ <i>Psychosocial/material support</i></li> <li>■ <i>Follow-up appointments for child</i></li> <li>■ <i>Follow-up care and counselling for mother, caregiver or other family members</i></li> <li>■ <i>Is there anything else you'd like to discuss?</i></li> </ul>

### Exercise 2: Post-test counselling — HIV antibody test results

<b>Purpose</b>	<ul style="list-style-type: none"> <li>■ To practise delivering HIV antibody test results and providing post-test counselling</li> </ul>
<b>Introduction</b>	<p>This exercise provides participants with the opportunity to role play in groups of two (pairs) delivering HIV antibody test results (both positive and negative).</p> <p><b>Demonstration:</b> First the trainer will demonstrate a post-test counselling session. After the demonstration participants will be given an opportunity to discuss.</p> <p><b>Role Plays in Small Groups:</b> After the demonstration, participants will break into pairs. One person in each pair will play the role of the counsellor and the other the role of the caregiver. Each pair will be assigned one of the four scenarios below.</p> <p>After about 15 minutes, participants should switch roles so that they are playing the opposite role (counsellors become caregivers and vice versa) and the results of the HIV antibody test in the scenario should be changed to HIV-negative. Take about 15 minutes for the second role play</p> <p>Participants should use Table 5.3, Table 5.4 and Table 5.5, which include the contents of the counselling cue cards, to guide their post-test counselling sessions.</p>

### Exercise 2: Post-test counselling — HIV antibody test results

#### Scenarios for role plays

##### Role play 1:

Prudence is at the hospital with her six-month-old baby boy. They are at the clinic for a routine check-up and immunisations. After weighing and measuring the baby, you notice that he is not growing that well. Prudence is breastfeeding, but has also been supplementing with porridge, and wants more information on what to feed the baby now that he is six months old. Prudence reports that she has not felt well since the time she was pregnant with this child. Prudence participates in a group pre-test session and agrees for her son to have an HIV test. The HIV antibody test result is

positive. Deliver the test result to Prudence; provide post-test counselling and guidance on next steps for the baby boy.

**Role play 2:**

Mary is a granny taking care of her daughter's three-year-old girl (and three other children left to her when her daughter died). The little girl was brought to the clinic with a respiratory infection and diarrhoea. Mary was given pre-test education and the child was tested for HIV. The result is positive. Deliver the test results to Mary and provide post-test counselling and referrals.

**Role play 3:**

Sophia and her son Vincent are at the hospital. Vincent is two years old and is suffering from high fever and a bad cough. Sophia reports that Vincent has been unwell a lot lately. She also reports that she has been unwell and thinks that she may have TB. Sophia does not know her HIV-status. After the pre-test session, Sophia consents for herself and her son to be tested for HIV. The results indicate that both Sophia and Vincent are HIV-infected. Deliver the test results and provide post-test counselling and referrals.

**Role play 4:**

Alice brings her daughter Frances to the clinic. Frances is five years old and appears to be underweight. Alice reports that Frances does not seem to grow as fast as her older children did and also that Frances has been coughing for two weeks and just started having difficulties breathing. Alice does not know her HIV status. After the pre-test session, Alice agrees to testing only for her daughter. She does not want testing for herself. The results indicate that Frances is HIV-infected. Deliver the results and provide post-test counselling and referrals.

## Session 5.3 Post-test Counselling: HIV DNA PCR Testing

### Session Objective

After completing this session, participants will be able to:

- Conduct the post-test session for caregivers of children who have been tested for HIV using DNA PCR testing.

### When DNA PCR testing should be conducted

DNA PCR testing is used to test children for HIV under the following circumstances:

- If the child is less than 18 months of age **AND**
- If the child is known to have been exposed to HIV, for example if the mother is living with HIV or if the child had a positive HIV antibody test.

Given the fact that PCR testing generally indicates that the mother is HIV-infected, even if the child is negative, counselling for a PCR test necessarily includes a discussion of care, treatment and support needs for the mother and possibly other family members.

Note that post-test counselling in this age group always includes a discussion of safer infant feeding.

**Table 5.6: Interpreting DNA PCR test results**

Result (breastfeeding status)	Meaning
<b>A positive DNA PCR test (regardless of breastfeeding status)</b>	The child is HIV-infected.
<b>A negative DNA PCR test (if the child was never breastfed or if all breastfeeding stopped at least three months ago)</b>	The child is HIV-uninfected.  If the test was done before four weeks of age, it should be repeated after the age of four weeks (or immediately if the child is symptomatic).
<b>A negative DNA PCR test (if child is currently breastfeeding or stopped breastfeeding within the past three months)</b>	The child is either HIV-uninfected or is in the window period due to recent (i.e., within the past three months) exposure to HIV through breastfeeding.  Children who remain asymptomatic can be re-tested at the age of 18 months using HIV antibody testing OR three months after complete cessation of breastfeeding (whichever is later). Children who are

	<p>symptomatic should be re-tested immediately.</p> <p>If the test was done before four weeks of age, it should be repeated after the age of four weeks (or immediately if the child is symptomatic).</p>
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## Content of Post-test Counselling Session — Positive DNA PCR Test

The following table provides guidance to counsellors leading the post-test HIV counselling session for a caregiver receiving a positive DNA PCR test result.

**Table 5.7: Post-test Counselling for Positive DNA PCR Test**

Objective	Script
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>▪ <i>Introduce yourself.</i></li> <li>▪ I am _____ (name/occupation) and will be talking with you about your child’s HIV test.</li> <li>▪ I want you to feel comfortable asking questions today so you have the information you need.</li> </ul>
<p><b>Provide the test result.</b></p> <ul style="list-style-type: none"> <li>▪ Discuss the meaning of test result for the child.</li> <li>▪ Offer support and allow time for processing the information and discussing feelings.</li> <li>▪ Ensure understanding that HIV is a treatable, lifelong disease.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Your child’s test is <b>positive</b>. This means that your child is HIV-infected. <i>Allow the caregiver time to consider the results, discuss feelings and ask questions.</i></li> <li>▪ This positive test result means that (<i>if speaking to the biological mother</i>) you are also very likely to be infected with HIV. It is possible that the child’s father also has HIV. It is important that your partner and any other children you have get tested and start treatment for HIV if it is needed.</li> <li>▪ We have plenty of time to discuss this result and what happens next. Let’s discuss what you understand about this and how you are feeling. <i>Allow the caregiver time to consider the results, discuss feelings and ask questions.</i></li> <li>▪ HIV is a lifelong disease. Although we can’t cure HIV, treatment is available and it works very well. Today, many children and adults with HIV live healthy, long lives.</li> <li>▪ Care, treatment and support are available for you and your child. We’ll arrange care for your child and for you and others in your</li> </ul>

Objective	Script
	<p>family (as needed) before you leave today. It is very important that your child is evaluated for treatment as soon as possible so that she or he gets the care needed for a healthy life.</p>
<p><b>Find out more about the support system and provide support for the caregiver.</b></p>	<ul style="list-style-type: none"> <li>■ How are you coping right now?</li> <li>■ Are there friends or family members aware of your/your child's HIV status? <i>Or, if newly diagnosed: Are there friends or family members you can tell about your/your child's HIV status?</i></li> <li>■ Who helps to take care of the child? Who will bring the child back to clinic? Any problems that you see in bringing the child back to the clinic?</li> <li>■ Do you have any support at home? Do you have someone who you can talk to about your or your child's HIV status?</li> <li>■ Where are you going after this visit? <i>Assess need for community services or support and provide information/referrals and/or follow-up counselling.</i></li> <li>■ At the end of our talk, we can discuss the next steps for your and your child's care.</li> </ul>
<p><b>Discuss continuing CTX.</b></p>	<ul style="list-style-type: none"> <li>■ You should continue (or start) giving your child CTX daily. This is an important medicine that protects your child from some common infections. We will tell you how you can get this for your child. <i>Discuss adherence, review dosing and provide or review instructions.</i></li> </ul>
<p><b>Discuss IYCF.</b></p> <ul style="list-style-type: none"> <li>■ Discuss IYCF according to breastfeeding status and age of child.</li> </ul>	<ul style="list-style-type: none"> <li>■ How are you feeding your child?</li> </ul> <p><i>Breastfeeding mother with HIV</i></p> <ul style="list-style-type: none"> <li>■ How is breastfeeding going for you?</li> <li>■ It is important for you to make sure you are taking steps to ensure you stay healthy while still breastfeeding.</li> </ul> <p><i>Breastfeeding mother with HIV, whose child is less than six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Check if she breastfeeds exclusively; ask about mixed feeding. The infant should not be given any other liquids or foods other than breast milk (not even water or formula!). Ask how she handles pressure from friends and family to give her baby other liquids or foods. Role play with her if she would find it helpful.</i></li> <li>■ <i>Check if she breastfeeds on demand and for as</i></li> </ul>

Objective	Script
	<p><i>long as the infant wants.</i></p> <ul style="list-style-type: none"> <li>■ <i>Observe a breastfeed and assess the mother’s breasts for abnormalities; advise appropriately. Ask her to return to the clinic if she has a breast condition.</i></li> </ul> <p><i>Breastfeeding mother with HIV, whose child is approaching six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Introduce complementary foods at six months. Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> <li>■ <i>Breastfeeding should continue until the child is 24 months and beyond.</i></li> </ul> <p><i>Breastfeeding mother with HIV, whose child is ready for weaning</i></p> <ul style="list-style-type: none"> <li>■ <i>Once you have weaned your child, substitute animal milk (such as cow, goat or sheep) for breast milk.</i></li> <li>■ <i>Provide referrals for financial or nutritional support, if appropriate and available.</i></li> </ul> <p><i>Non-breastfeeding caregiver with child less than six months</i></p> <ul style="list-style-type: none"> <li>■ <i>If your child is <u>not breastfeeding</u>, we can talk about formula feeding. Discuss correct and hygienic formula preparation.</i></li> <li>■ <i>Introduce complementary foods at six months. Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> </ul> <p><i>All mothers and caregivers with children six months of age or older</i></p> <ul style="list-style-type: none"> <li>■ <i>What is your child eating? What did she eat today? How about yesterday?</i></li> <li>■ <i>What problems, if any, are you having?</i></li> <li>■ <i>Your child should take an “<b>adequate diet</b>”, that is, she or he should eat four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods). “Milk” refers to breast milk or animal milk.</i></li> <li>■ <i>If your child is not breastfeeding it is particularly important that she or he has some form of milk every day (such as that</i></li> </ul>

Objective	Script
	<p>from cow, sheep or goat milk). Unpasteurised milk needs to be boiled before it is served to a child or an adult.</p> <ul style="list-style-type: none"> <li>■ We can talk about ways to make sure that the way you feed your child keeps her or him as healthy as possible, for example, using clean water and preparing food safely.</li> </ul>
<p><b>Discuss care and treatment for the mother.</b></p>	<p><i>Follow up on discussion of mother's HIV care and treatment</i></p> <ul style="list-style-type: none"> <li>■ We also need to discuss your health. What is your understanding of what your child's test result means for your health?</li> </ul> <p><i>If the mother's HIV status is unknown</i></p> <ul style="list-style-type: none"> <li>■ Have you already been tested? If not, may we discuss doing an HIV test? It's important for your health for us to confirm your infection status by conducting an HIV test today. <i>Provide pre-test information. If she agrees to testing, proceed with counselling and testing.</i></li> </ul> <p><i>If the mother is aware she is living with HIV</i></p> <ul style="list-style-type: none"> <li>■ Can we discuss the care you are receiving?</li> <li>■ Have you been to the clinic for HIV care for yourself? If so, when was your last visit?</li> <li>■ Do you have an appointment for your next (first) visit? If so, when is it?</li> <li>■ How are things going with your HIV care?</li> <li>■ Are you on ART?</li> <li>■ It is important to follow through with your own care so that you can stay healthy and take care of your family.</li> </ul> <ul style="list-style-type: none"> <li>■ <i>Discuss medical care and follow-up appointments, especially:</i> <ul style="list-style-type: none"> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>STI prevention</i></li> <li>■ <i>Other medical and psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul> </li> </ul>
<p><b>Discuss the meaning of test for other family members.</b></p>	<ul style="list-style-type: none"> <li>■ Let's discuss whether or not there are other members of your family who would benefit from having an HIV test. <ul style="list-style-type: none"> <li>■ Does your child have brothers or sisters? Tell me about their ages and their health. Have any of the children had an HIV test?</li> </ul> </li> </ul>

Objective	Script
	<ul style="list-style-type: none"> <li>■ Do you have a husband, partner or partners with whom you have a sexual relationship? Has your partner had an HIV test? Do you feel you could discuss your status and HIV testing with your partner(s)? Is it possible for you and your partner to only have sex with each other? <i>Discuss the importance of using condoms.</i></li> <li>■ <i>Provide counselling related to disclosure as needed.</i></li> </ul>
<p><b>Make appropriate referrals for HIV care and treatment for the child and the mother (if needed). Explain what to expect at the next visit.</b></p> <ul style="list-style-type: none"> <li>■ Date, place, time of appointment</li> <li>■ What to expect at the appointment</li> <li>■ How to change the appointment</li> <li>■ What to do if the child is ill</li> </ul>	<ul style="list-style-type: none"> <li>■ HIV care for your child will be provided at (<u>name of clinic</u>).</li> <li>■ For your (<i>mother's</i>) care, you will go to the (<u>name of clinic</u>).</li> <li>■ At the clinic, they will evaluate you/your child, explain the process of decision-making regarding treatment, discuss options with you and answer any questions you have. It is very important to make sure that your child gets treatment as soon as possible so that she or he is able to live a healthy life. <i>Explain</i> <ul style="list-style-type: none"> <li>■ <i>Date, place, time of appointments</i></li> <li>■ <i>How to change the appointments</i></li> <li>■ <i>What to do if the child or mother is ill</i></li> <li>■ <i>Importance of well child visits</i></li> </ul> </li> </ul>
<p><b>Review care and treatment for the mother and other family members.</b></p>	<p><i>Based on individual circumstances, review status and need for follow-up for:</i></p> <ul style="list-style-type: none"> <li>■ <i>HIV testing</i></li> <li>■ <i>HIV care and treatment</i></li> <li>■ <i>Family planning</i></li> <li>■ <i>Other medical or psychosocial issues</i></li> <li>■ <i>Community support</i></li> </ul>
<p><b>Assess caregiver's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>■ I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about? <i>Ask caregiver to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>■ <i>Meaning of the test result</i></li> <li>■ <i>Confirmatory or repeat HIV testing (if required)</i></li> <li>■ <i>CTX</i></li> <li>■ <i>Infant and young child feeding</i></li> <li>■ <i>Adherence</i></li> <li>■ <i>HIV/STI prevention</i></li> <li>■ <i>Psychosocial/material support</i></li> <li>■ <i>Follow-up appointments for child</i></li> <li>■ <i>Follow-up care and counselling for mother,</i></li> </ul> </li> </ul>

Objective	Script
	<p><i>caregiver or other family members</i></p> <ul style="list-style-type: none"> <li>■ Is there anything else you'd like to discuss?</li> </ul>

## Topics to Cover in the Post-test Counselling Session – Negative DNA PCR Result

The following table provides guidance to counsellors leading the post-test HIV counselling session for a caregiver receiving a negative DNA PCR test result.

**Table 5.8: Post-test Counselling for Negative DNA PCR Test**

Objective	Script
<p><b>Introduce yourself and the session.</b></p>	<ul style="list-style-type: none"> <li>■ <i>Introduce yourself.</i></li> <li>■ I am _____ (name/occupation) and will be talking with you about your child's HIV test.</li> <li>■ I want you to feel comfortable asking questions today so you have the information you need.</li> </ul>
<p><b>Provide the test result. Discuss the meaning of test result for the child. Interpret test results by category:</b></p> <ul style="list-style-type: none"> <li>■ For breastfeeding children</li> <li>■ For an infant less than four weeks of age (at the time of testing)</li> <li>■ For a child more than four weeks of age and not breastfed</li> </ul>	<ul style="list-style-type: none"> <li>■ Your child's DNA PCR test result is <b>negative</b>.</li> </ul> <p><i>If breastfed currently, or within the last three months, by HIV-infected caregiver</i></p> <ul style="list-style-type: none"> <li>■ Your child has been exposed to HIV. Based on this test result we know that she or he was not infected during pregnancy or during delivery. It is important that your child get ARV prophylaxis to lower the risk of passing HIV through breast milk. As you are still breastfeeding it is still possible for your child to become infected from breast milk. I know you would like to know the final HIV status right now, but it's important that we repeat the test after you are no longer breastfeeding to make sure your child remains uninfected.</li> <li>■ The test should be repeated three months after you have completely stopped breastfeeding. <i>If mother's status is unknown, encourage mother to undergo PITC.</i></li> <li>■ Because we can't be certain yet about your child's HIV status, you should continue (start) to give your child CTX. This medicine will help prevent infections. <i>Discuss adherence, review dosing and instructions.</i></li> <li>■ It is important that you continue to bring your child to the clinic to get regularly scheduled immunisations and care and to get HIV</li> </ul>

Objective	Script
	<p>testing for your child again after breastfeeding has stopped. We'll arrange the appointment(s) before you go.</p> <p><i>If child was <u>younger than four weeks</u> at the time of the test</i></p> <ul style="list-style-type: none"> <li>■ Because your child was so young when this test was done, we can't confirm that she or he is uninfected until we repeat the test. I know you would like to know the final HIV status right now, but it's important that we repeat the test to make sure your child is uninfected. <i>Discuss when the repeat testing should be done after four weeks of age.</i></li> <li>■ Because we can't be certain yet about your child's HIV status, you should continue (start) to give your child CTX. This medicine will help prevent infections. <i>Discuss adherence, review dosing and instructions.</i></li> <li>■ It is important that you continue to bring your child to the clinic to get regularly scheduled immunisations and care.</li> </ul> <p><i>If child was <u>older than four weeks</u> at the time of the test and has never breastfed or has not breastfed in the past three months</i></p> <ul style="list-style-type: none"> <li>■ This result means that your child does not have HIV.</li> <li>■ If you were giving CTX, you may stop.</li> <li>■ It is important that you continue to bring your child here to get regularly scheduled immunisations and care.</li> </ul>
<p><b>Find out more about the support system and provide support for the caregiver.</b></p>	<ul style="list-style-type: none"> <li>■ How are you coping right now?</li> <li>■ Are there friends or family members aware of your/your child's HIV status? <i>Or, if newly diagnosed: Are there friends or family members you can tell about your/your child's HIV status?</i></li> <li>■ Who helps to take care of the child? Who will bring the child back to clinic? Any problems that you see in bringing the child back to the clinic?</li> <li>■ Do you have any support at home? Do you have someone who you can talk to about your or your child's HIV status? <i>Assess need for community services or support and provide information/referrals and/or follow-up counselling.</i></li> </ul>

Objective	Script
	<ul style="list-style-type: none"> <li>■ At the end of our talk, we can discuss the next steps for your and your child's care.</li> </ul>
<p><b>Discuss IYCF.</b></p> <ul style="list-style-type: none"> <li>■ Discuss IYCF according to breastfeeding status and age of child.</li> </ul>	<ul style="list-style-type: none"> <li>■ How are you feeding your child?</li> </ul> <p><i>Breastfeeding mother with HIV</i></p> <ul style="list-style-type: none"> <li>■ How is breastfeeding going for you?</li> <li>■ Your child has tested negative, but if you are living with HIV, there is a risk of passing on HIV through breast milk. It is important to give your child the ARV prophylaxis as prescribed to lower this risk. <i>Discuss dosing, instructions and adherence.</i></li> <li>■ It is also important to give the baby CTX because this medicine prevents other infections that can make the baby sick.</li> <li>■ There are ways to protect your baby from HIV during breastfeeding. Most importantly, if you are living with HIV and HIV treatment has been recommended, the treatment will lower the risk that the child will be infected through breastfeeding.</li> <li>■ You will need to take care of yourself. If HIV treatment has been recommended for you, you should know that this treatment is important for your health and it lowers the risk that your baby will be infected with HIV through breastfeeding. You should take the medicine exactly as prescribed. The _____ (<i>name of clinic</i>) will discuss this with you.</li> <li>■ It is important for you to make sure you are taking steps to ensure you stay healthy while still breastfeeding.</li> </ul> <p><i>Breastfeeding mother with HIV, whose child is less than six months of age</i></p> <ul style="list-style-type: none"> <li>■ <i>Check if she breastfeeds exclusively; ask about mixed feeding. The infant should not be given any other liquids or foods other than breast milk (not even water or formula!). Ask how she handles pressure from friends and family to give her baby other liquids or foods. Role play with her if she would find it helpful.</i></li> <li>■ <i>Check if she breastfeeds on demand and for as long as the infant wants.</i></li> <li>■ <i>Observe a breastfeed and assess the mother's breasts for abnormalities; advise appropriately. Ask her to return to the clinic if</i></li> </ul>

Objective	Script
	<p><i>she has signs of engorgement, nipple cracks or any other breast condition.</i></p> <p><i>Breastfeeding mother with HIV, whose child is approaching six months of age</i></p> <ul style="list-style-type: none"> <li>■ Introduce complementary foods at six months. <i>Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> <li>■ Continue breastfeeding until the child is 12 months of age.</li> </ul> <p><i>Breastfeeding mother with HIV, whose child is approaching 12 months of age</i></p> <ul style="list-style-type: none"> <li>■ If your child is HIV uninfected or of unknown status, breastfeeding should stop gradually, over the course of one month. <i>Discuss how to wean.</i></li> <li>■ If the child is HIV-infected, breastfeeding should continue for 24 months and beyond.</li> <li>■ Once you have weaned your child, substitute animal milk (such as cow, goat or sheep) for breast milk.</li> <li>■ Do not wean your child if you do not have enough food or milk to feed her or him. Evaluate safety of weaning from breast milk. <i>Ask about:</i> <ul style="list-style-type: none"> <li>■ Where will you get animal milk for your child?</li> <li>■ <i>If purchasing:</i> How much money can you afford for milk each month?</li> <li>■ <i>If family has access to farm animals:</i> Is the supply regular? Will you be able to boil the milk before it is served?</li> </ul> </li> </ul> <p><i>Provide referrals for financial or nutritional support, if appropriate and available.</i></p> <p><i>Non-breastfeeding caregiver with child less than six months</i></p> <ul style="list-style-type: none"> <li>■ If your child is <u>not breastfeeding</u>, we can talk about formula feeding. <i>Discuss correct and hygienic formula preparation.</i></li> <li>■ Introduce complementary foods at six months. <i>Describe complementary foods. Discuss how to provide child with an adequate diet.</i></li> </ul> <p><i>All mothers and caregivers with children six</i></p>

Objective	Script
	<p><i>months of age or older</i></p> <ul style="list-style-type: none"> <li>■ What is your child eating? What did she eat today? How about yesterday?</li> <li>■ What problems, if any, are you having?</li> <li>■ Your child should take an “<b>adequate diet</b>”, that is, she or he should eat four or five meals per day (“meals” can include other foods, milk-only feeds, or a combination of milk and other foods). “Milk” refers to breast milk or animal milk.</li> <li>■ If your child is not breastfeeding it is particularly important that she or he has some form of milk every day (such as that from cow, sheep or goat milk). Unpasteurised milk needs to be boiled before it is served to a child or an adult.</li> <li>■ We can talk about ways to make sure that the way you feed your child keeps her or him as healthy as possible, for example, using clean water and preparing food safely.</li> </ul> <p><i>Mother is HIV-uninfected or does not know her HIV status</i></p> <ul style="list-style-type: none"> <li>■ Breastfeed exclusively for the first six months of life and then introduce complementary foods while continuing breastfeeding for up to 24 months or beyond.</li> <li>■ What questions do you have about breastfeeding?</li> <li>■ <i>If the child is less than six months old:</i> What may make it difficult for you to breastfeed exclusively, that is, to not give your baby foods or liquids other than breast milk?</li> <li>■ There is a high chance of infecting your child if you become HIV-infected while breastfeeding. It is important for you to take steps to prevent HIV and other STIs while still breastfeeding. <i>Discuss safer sex, negotiation of condom use and partner testing.</i></li> <li>■ We recommend that you learn your HIV status. <i>Provide pre-test information and address mother’s concerns. Provide HIV testing (with consent).</i></li> </ul>

<b>Objective</b>	<b>Script</b>
<p><b>Plan child's follow-up care.</b></p> <ul style="list-style-type: none"> <li>▪ HIV testing</li> <li>▪ EPI/Under 5 clinic</li> <li>▪ How to cancel/change appointments</li> <li>▪ What to do if child is sick</li> </ul>	<p><i>Explain</i></p> <ul style="list-style-type: none"> <li>▪ <i>What to expect at the next appointment</i></li> <li>▪ <i>Date, place, time of appointment</i></li> <li>▪ <i>How to change the appointment(s)</i></li> <li>▪ <i>What to do if the child is ill</i></li> <li>▪ <i>Importance of well child visits</i></li> </ul>
<p><b>Review care and treatment for the mother and other family members.</b></p>	<p><i>Based on individual circumstances, review status and need for follow-up for:</i></p> <ul style="list-style-type: none"> <li>▪ <i>HIV testing</i></li> <li>▪ <i>HIV care and treatment</i></li> <li>▪ <i>Family planning</i></li> <li>▪ <i>Adherence</i></li> <li>▪ <i>HIV/STI prevention</i></li> <li>▪ <i>Other medical or psychosocial issues</i></li> <li>▪ <i>Community support</i></li> </ul> <p><i>Discuss:</i></p> <ul style="list-style-type: none"> <li>▪ <i>Psychosocial or material support from friends, family or community organisations</i></li> <li>▪ <i>Other caregivers for the child; evaluate need for counselling for other caregivers</i></li> </ul>
<p><b>Assess caregiver's understanding of the results and the follow-up plan. Address questions or concerns.</b></p>	<ul style="list-style-type: none"> <li>▪ <i>I would like to make sure I covered everything with you and explained things the right way. Can you explain to me what we just talked about? Ask caregiver to summarise the following (as appropriate to circumstances):</i> <ul style="list-style-type: none"> <li>▪ <i>Meaning of the test result</i></li> <li>▪ <i>Repeat HIV testing for the child</i></li> <li>▪ <i>CTX</i></li> <li>▪ <i>Infant feeding</i></li> <li>▪ <i>Adherence</i></li> <li>▪ <i>HIV/STI prevention</i></li> <li>▪ <i>Psychosocial/material support</i></li> <li>▪ <i>Follow-up appointments for child</i></li> <li>▪ <i>Follow-up care and counselling for mother, caregiver or other family members</i></li> </ul> </li> <li>▪ <i>Is there anything else you'd like to discuss?</i></li> </ul>

### **Exercise 3: Post-test counselling — DNA PCR test results**

#### **Role play in pairs**

<b>Purpose</b>	<ul style="list-style-type: none"> <li>▪ To practise delivering DNA PCR test results and providing post-test counselling</li> </ul>
<b>Introduction</b>	This exercise provides participants with opportunity to role play in groups of two (pairs) delivering DNA PCR test

	<p>results (both positive and negative).</p> <p><b>Role Plays in Small Groups:</b>          After a possible trainer demonstration, participants will break into pairs. One person in each pair will play the role of the counsellor and the other the role of the caregiver using the scenario below.</p> <p>After about 15 minutes, participants should switch roles so that they are playing the opposite role (counsellors become caregivers and vice versa) and the results of the HIV antibody test in the scenario should be changed to HIV-negative. Take about 15 minutes for the second role play</p> <p>Participants should use Table 5.7 and Table 5.8, which include the content of the counselling cue cards, to guide their post-test counselling sessions.</p>
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### Exercise 3: Post-test counselling — DNA PCR test results

#### Scenario for the trainer demonstration:

Four weeks ago, Fulani consented to have her two-month-old baby girl tested for HIV when she was admitted to the hospital with severe diarrhoea and dehydration. Today Fulani and her baby, who is now three months old, are returning to the hospital for follow-up and to hear her baby's HIV test result. Fulani lives with her family and has a boyfriend who works in the Copper Belt, who she sees about once a month. Neither he nor her family knows that she is living with HIV. Fulani is breastfeeding her daughter (formula feeding was never an option because she finds it difficult to afford formula and thinks breast milk is a safer option). The baby is receiving CTX but Fulani has not been able to give it regularly. The baby is now growing well and her development is appropriate for age. The child's DNA PCR test result is positive.

#### Scenario for the role play in pairs:

Selome is a mother with an eight-month-old baby boy. The boy was found to be HIV antibody positive during a well child visit about a month ago. At that visit blood was taken for DNA PCR testing and he was prescribed CTX. Even though she consented to her son's testing, Selome refused HIV testing for herself at the time, saying that she wanted to ask her husband first. Selome is breastfeeding the baby and she also gives porridge and some other soft foods. The baby has been very sick with respiratory infections and diarrhoea, resulting in frequent trips to the clinic. Today, Selome returns to the clinic to pick up her son's DNA PCR test result, which is positive.

Note: for the second round of role play, the results are negative.



## **Module 5: Key Points**

- All paediatric HIV testing should be preceded by the pre-test session and followed by individual post-test counselling.
- Pre-test sessions include:
  - An explanation that HIV testing is a routine part of care for all children in Zambia
  - The benefits of HIV testing and counselling, especially in children
  - Discussion of confidentiality
  - Description of the testing process and the meaning of test results, for the child and mother
  - Discussion of the availability of care and treatment for child and mother
  - Discussion of the right to decline the test
  - Invitation of further questions
- Post-test counselling includes:
  - Delivery of results, discussion and explanation of the meaning of the results
  - Attention to the caregiver's ability to process and cope with the information provided
  - Assessment of caregiver's support system and referrals if needed
  - Assessment of sources of caregiver and family support
  - Consideration of CTX prophylaxis (depending on the child's status, age, and other factors)
  - IYCF counselling
  - Discussion of post-test follow-up, which will vary according to the results of the test, the age of the child and the specific needs of the child and family
  - Discussion of the care and treatment needs of the mother and other family members
- The counsellor must be aware that some mothers will learn that they themselves are HIV-infected during their child's HIV-positive post-test counselling session. It takes special sensitivity to deliver these results, while also ensuring that plans for the mother's care and treatment are discussed at this time. HIV testing should be considered for other family members as appropriate.
- Counselling on IYCF is an important component of post-test counselling as caregivers of children who test HIV-negative will need support to ensure that breastfed children stay HIV-negative. All caregivers should have support to adequately and safely feed their young children.
- Linkages to appropriate ongoing care are crucial. The goal of testing is to link children and families to treatment, and the role of all healthcare workers is to support the family to successfully navigate the healthcare system to receive the care they need.
- The caregiver's well-being is crucial for the well-being of the child. Every effort should be made to ensure that the needs of the caregiver are also addressed.

## **References and Resources**

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Republic of Zambia Ministry of Health. (2009). National Guidelines for Paediatric Provider-initiated HIV Testing and Counselling.

Republic of Zambia Ministry of Health. (2007). Dried Blood Spot for DNA PCR Testing Health Facility Handbook, 1<sup>st</sup> edition.

Republic of Zambia Ministry of Health (2009). Paediatric PITC Counselling Cue Cards.

Republic of Zambia Ministry of Health (2009). Paediatric HIV Testing Algorithms.